

Original Paper

doi [10.15826/recon.2024.10.2.008](https://doi.org/10.15826/recon.2024.10.2.008)

UDC 332.1

JEL O25, O38, R11

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Assessment of women's access to resources in rural areas of Kazakhstan

ABSTRACT

Relevance. Ensuring equal access to resources is crucial for social development, especially in rural areas. Women in these regions face distinct challenges due to traditional lifestyles and cultural norms, impacting their access to education, healthcare, and economic opportunities. Addressing these challenges is vital for the overall development of rural communities.

Research objective. This study aims to develop methodological approaches to assessing women's access to resources in rural areas of Kazakhstan.

Data and methods. Based on the investigation of methodological approaches, multinomial logistic regression analysis was proposed to assess the impact of regional differences on gender gaps in access to various resources. The study is based on qualitative data collected from May to June 2023 from a sociological survey conducted among women aged 18–60 in rural settlements of Kazakhstan. A total of 600 respondents were interviewed, and 542 of the respondents had completed questionnaires. This methodology enables the collection, analysis, and processing of primary data, aiding in the assessment of gender disparities in resource access.

Results. The proposed methodology facilitated a thorough analysis of qualitative data, offering insights into the problem of gender disparities. Most respondents rated their access to social and economic resources as average, suggesting that while there are available resources, they might not fully meet rural women's needs or expectations in terms of level or quality.

Conclusions. Regions like Akmola, Atyrau, Mangystau, North Kazakhstan, Turkestan, and Zhambyl show significant disparities in resource access, indicating regional inequalities. Addressing this gap necessitates collaborative efforts between government and businesses to enhance resource availability and broaden opportunities for rural women.

KEYWORDS

region, regional economy, rural area, resource access, gender gap, Kazakhstan

ACKNOWLEDGEMENTS

The study was supported by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (AP14869297 “Addressing Resource Inequality Faced by Rural Women in Kazakhstan: Priorities and Mechanisms”).

FOR CITATION

Kireyeva, A. A., Nurbatsin, A. S. & Kenzhegulova, G. K. (2024). Assessment of women's access to resources in rural areas of Kazakhstan. *R-Economy*, 10(2), 123–136. doi: 10.15826/recon.2024.10.2.008

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Оценка доступа женщин к ресурсам в сельской местности Казахстана

АННОТАЦИЯ

Актуальность. Обеспечение равного доступа к ресурсам имеет решающее значение для социального развития, особенно в сельской местности. Женщины в этих регионах сталкиваются с особыми проблемами из-за традиционного образа жизни и культурных норм, которые влияют на их доступ к образованию, здравоохранению и экономическим возможностям. Решение этих проблем имеет жизненно важное значение для общего развития сельских сообществ.

КЛЮЧЕВЫЕ СЛОВА

регион, региональная экономика, сельская местность, доступ к ресурсам, гендерный разрыв, Казахстан

Цель исследования. Целью данного исследования является разработка методологических подходов к оценке доступа женщин к ресурсам в сельской местности Казахстана.

Данные и методы. На основе исследования методических подходов был предложен полиномиальный логистический регрессионный анализ для оценки влияния региональных различий на гендерные различия в доступе к различным ресурсам. Исследование основано на качественных данных, собранных с мая по июнь 2023 года в результате социологического опроса, проведенного среди женщин в возрасте 18-60 лет в сельских поселениях Казахстана. Всего было опрошено 600 респондентов, из них 542 респондента заполнили анкеты. Эта методология позволяет собирать, анализировать и обрабатывать первичные данные, помогая оценить гендерное неравенство в доступе к ресурсам.

Результаты. Предложенная методология способствовала тщательному анализу качественных данных, предлагая понимание проблемы гендерного неравенства. Большинство респондентов оценили свой доступ к социальным и экономическим ресурсам как средний, предполагая, что, несмотря на наличие доступных ресурсов, они могут не полностью соответствовать потребностям или ожиданиям сельских женщин с точки зрения уровня или качества.

Выводы. Такие регионы, как Акмолинская, Атырауская, Мангистауская, Северо-Казахстанская, Туркестанская и Жамбылская области, демонстрируют значительные различия в доступе к ресурсам, что указывает на региональное неравенство. Устранение этого разрыва требует совместных усилий правительства и бизнеса для повышения доступности ресурсов и расширения возможностей сельских женщин.

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БЛАГОДАРНОСТИ

Статья подготовлена в рамках проекта грантового финансирования Министерства образования и науки Республики Казахстан «Приоритеты и механизмы по преодолению неравного доступа сельских женщин Казахстана к ресурсам» (ИРН AP14869297).

ДЛЯ ЦИТИРОВАНИЯ

Kireyeva, A. A., Nurbatsin, A. S. & Kenzhegulova, G. K. (2024). Assessment of women's access to resources in rural areas of Kazakhstan. *R-Economy*, 10(2), 123–136. doi: 10.15826/recon.2024.10.2.008

评估哈萨克斯坦农村地区妇女资源获取情况

摘要

现实性: 确保平等获得资源对于社会发展至关重要, 尤其是在农村地区。由于传统的生活方式和文化规范影响了妇女获得教育、医疗保健和经济机会, 这些农村地区的妇女面临着特殊的挑战。应对这些挑战对于农村社区的整体发展至关重要。

研究目标: 本研究的目的是制定评估哈萨克斯坦农村地区妇女获取资源情况的方法。

数据与方法: 基于方法论研究, 文章提出了多项式逻辑回归分析来评估地区差异对获取资源的性别差异影响。作者于2023年5月至6月对哈萨克斯坦农村居住区18-60岁妇女进行了社会学调查, 本研究基于调查所收集的定性数据。作者共采访了600名受访者, 其中542名受访者填写了调查问卷。该方法可以收集、分析和处理原始数据, 帮助评估女性在获取资源方面的性别不平等。

研究结果: 拟议的方法有助于对定性数据进行分析, 从而深入了解性别不平等。大多数受访者认为她们获得社会和经济资源的机会处于平均水平, 这表明虽然有资源, 但这些资源在水平或质量上可能无法完全满足农村妇女的需求或期望。

研究结论: 阿克莫拉、阿特劳、曼吉斯套、北哈萨克斯坦、突厥斯坦和江布尔等地区在获得资源方面存在显著差距, 这表明了地区不平等。要缩小这一差距, 需要政府和企业共同努力, 以便改善农村妇女获得资源的机会, 增强她们的能力。

关键词

地区、地区经济、农村地区、获得资源、性别差距、哈萨克斯坦

供引用

Kireyeva, A. A., Nurbatsin, A. S. & Kenzhegulova, G. K. (2024). Assessment of women's access to resources in rural areas of Kazakhstan. *R-Economy*, 10(2), 123–136. doi: 10.15826/recon.2024.10.2.008

Introduction

In Kazakhstan, the rise in unemployment and excessive labor migration is closely tied to the widespread dispersion of rural settlements. Typically, major cities and centers are situated far from these rural areas, which has exacerbated the issue in social terms, leading to the marginalization of rural populations and fostering enduring rural poverty – a challenge common in developing nations like Kazakhstan. Moreover, concrete solutions and recommendations to curb labor migration to cities have yet to be devised, further straining the domestic labor market.

Of particular concern is the plight of women in rural settings, where traditional lifestyles and cultural norms significantly influence their opportunities and development. Concurrently, rural poverty remains a pressing issue both domestically and globally. The gender problem in Kazakhstan consists in its lack of awareness, both on the part of women and society as a whole, even though Kazakhstani women make up not only the majority of the population but are more educated than men, socially active, and flexible in adapting to modern conditions. According to the Bureau of National Statistics, the unemployment rate for women in rural areas in 2022 was 5.2%, and for men, 4.3%. Differences in unemployment rates between men and women may stem from two primary factors: firstly, rural areas exhibit distinct socio-economic development characteristics compared to urban regions; and secondly, gender disparities in resource access and opportunities are often more pronounced in rural settings than in urban environments. Enhancing the status of women in rural areas could significantly improve the overall socio-economic development of the region.

In light of the above, there is a clear imperative to explore theories and contemporary approaches to gender equality practices, while also assessing women's access to various resources such as clean drinking water, quality education, and reliable social services. It is also crucial to establish a methodology for analyzing gender disparities in resource access in rural Kazakhstani settlements to gather objective data and devise effective measures to address existing inequalities.

It should be noted that a large number of works have been devoted to the development of methods for assessing the level of rural development. Various methodologies have been pro-

posed, encompassing indicators of economic structure, social development, education quality, access to resources, and other aspects (Siegmann, 2006; Ahmed et al., 2014; Oztunc et al., 2015). Some studies have highlighted the association between gender disparities and regional issues, such as uneven resource distribution (Nagima et al., 2019; Meler, 2020; Matteazzi & Scherer, 2021). These disparities manifest across multiple domains, including education, employment, healthcare, and political representation. However, many existing methodologies lack comprehensiveness, particularly in addressing the relationship between gender gaps and local socio-economic factors, which limits their effectiveness in rural problem-solving.

A common drawback of most techniques is their tendency to minimize negative impacts, which may compromise the thoroughness of analysis. Therefore, it is crucial to select methods that offer a comprehensive and reliable assessment of rural conditions based on a diverse set of variables. Our proposed research model incorporates a wide array of assessment methods, aiming to elucidate the extent of gender gaps in resource access. Consequently, our methodology for analyzing gender disparities in resource access will offer valuable insights into the root causes of rural inequalities, thus advancing gender equality efforts.

In this regard, it is worth highlighting that there are still no widely used and unified indicators for assessing gender differences, hindering the consideration of region-specific resource access gaps. Our study seeks to address this gap by developing methodological approaches to evaluate the prevalence and susceptibility of settlements in Kazakhstan to depression and vulnerability.

To achieve this objective, several tasks were undertaken. First, a theoretical review of approaches to analyzing gender differences was conducted and presented in the section “Theoretical Framework.” Next, methodological approaches for analyzing the level of women's access to resources in rural settlements of Kazakhstan were proposed in the section “Research Methods.” We relied on the qualitative data collected from May to June 2023 through a sociological survey of women aged 18–60 in rural areas of Kazakhstan. The data were analyzed using multinomial logistic regression methods to identify the impact of regional differences on gender gaps in resource ac-

cess. Finally, the collected data were interpreted to identify significant regional differences in resource access, highlighting the need for a comprehensive approach to addressing gender inequality in rural areas.

Addressing these tasks enables us to conduct a more accurate assessment of the factors influencing the development of advanced production technologies and the formation of forecasts for their dynamics, considering spatial effects until 2025.

Theoretical framework

In the current economic conditions, one of the primary tasks is to ensure sustainable growth in various countries worldwide. Therefore, it is essential to know how to achieve sustainable socio-economic development and find optimal solutions to the problems that arise in this case, which are associated with problems of access to resources and their unequal distribution. However, access to resources can be a problem for many developed and developing countries, and limitations result from the unequal distribution of resources. In addition, resources may be distributed unfairly among different population groups, which affects economic growth. For this reason, the unfair distribution of resources between other social groups of the population, including between men and women, creates gender inequality and a gender gap.

A vast body of research explores the uneven distribution of resources among different population groups, with a focus on gender issues, education quality, and the influence of social and economic factors (Fuente et al., 2013; Ahmed et al., 2014; Voss et al., 2021). Gender issues are a focal point in some studies, examining the influence of social, economic, and institutional factors (Jimu, 2011; Buser et al., 2014; Falk & Hermle, 2018; Sanzybayeva et al., 2020; Kireyeva et al., 2021). Additionally, researchers have linked gender disparities in rural areas to education quality and literacy rates (Siegmann, 2006; Oztunc et al., 2015; Carrasco Choque & Castillo Araujo, 2021; Witinok-Huber & Radil, 2021). Social factors play a crucial role in determining quality of life and access to healthcare, while economic factors primarily influence the quality of human capital.

Numerous studies explore processes associated with discrimination, highlighting the significance of asymmetric relationships between gen-

ders within families and disparities stemming from regional variations (Nagima et al., 2019; Meler, 2020; Matteazzi & Scherer, 2021; Yuan & Ma, 2022). These studies elucidate how regional factors influence disparities in educational access, workforce participation, and economic prospects. Specifically, investigations into women's access to resources and opportunities in rural areas are prevalent (Stöckl et al., 2021; Wei et al., 2021). Empirical studies on gender issues underscore significant disparities in gender roles and between rural and urban women (Forret & Dougherty, 2004; Cleland et al., 2012; Yorke et al., 2023; Biswas & Banu, 2023). Furthermore, there is extensive research on inequalities in healthcare and social service access (Gulati & Kelly, 2020; Ahmed & Mahapatro, 2023; Vohra-Gupta et al., 2023), analyzing global and regional trends that reveal discrepancies in medical care quality and availability for men and women.

Thus, various forms of social inequality, including gender, regional, and age disparities, among others, stem from such conditions as social, economic, political, and material factors, which can exacerbate unequal access to opportunities and foster social and economic disparities. Consequently, high levels of gender gaps in resource access and distribution can destabilize society and potentially impede long-term sustainable growth, perpetuating gender disparities in society.

To effectively assess gender disparities in resource access, it is important to specify the particular aspect of inequality being investigated. In line with this, our study employs the Scopus database to gather pertinent publications. We focused our search on the period from 2015 to 2023, with a notable concentration of publications between 2017 and 2021. Interestingly, journal articles surpassed conference materials in number, yielding over 2,000 documents. The VOSviewer program facilitated the visualization of our findings, where object size indicates the total link strength, and line width reflects the strength of connections between different terms within our study's framework. We compiled a sample for bibliometric analysis, using VOSviewer for clustering and network analysis of bibliometric data.

To retrieve meta-information from the Scopus database, type 1 keywords were initially employed within the broader context of gender studies. Thus, the query for our study encompassed terms such as "gender," "impact," "women," "dis-

crimination,” “rural,” “rural women,” “gender gap,” “resources,” “gender differences,” “poverty,” etc. In the network visualization results, elements are represented as labels, typically circular. The weight of connections between key terms determines the size of labels and circles. The analysis identifies several cluster groups color-coded as green, yellow, red, blue, and purple. In this scheme, red denotes the strongest connections, while blue indicates weaker associations among elements.

The visualization of the results obtained through network visualization mode, with a focus on keywords in the broader context of gender studies, is depicted in Figure 1.

The visualized data revealed distinct cluster networks, categorized as follows: “Resource Influence” (red), “Gender Stereotypes” (green), “In-

fluence of Personal Circumstances” (yellow), “Career Development” (purple), and “Level of Female Involvement” (blue). Cluster interpretation is based on the keywords found in them. It is important to note that this division is somewhat arbitrary, given the interconnectedness of both clusters and terms. Points labeled “Gender,” “Women,” and “Impact” exhibit closer color alignment to the background as their total density decreases.

The cluster group “Resource Impact” encompasses works related to “Impact,” “Growth,” “Access,” “Gender,” and “Discrimination,” but these may not fully address the research goal. Conversely, clusters “Career Development” and “Rate of Women’s Involvement” show weaker associations with keywords like “Women,” “Gender Differences,” and “Competitiveness.”

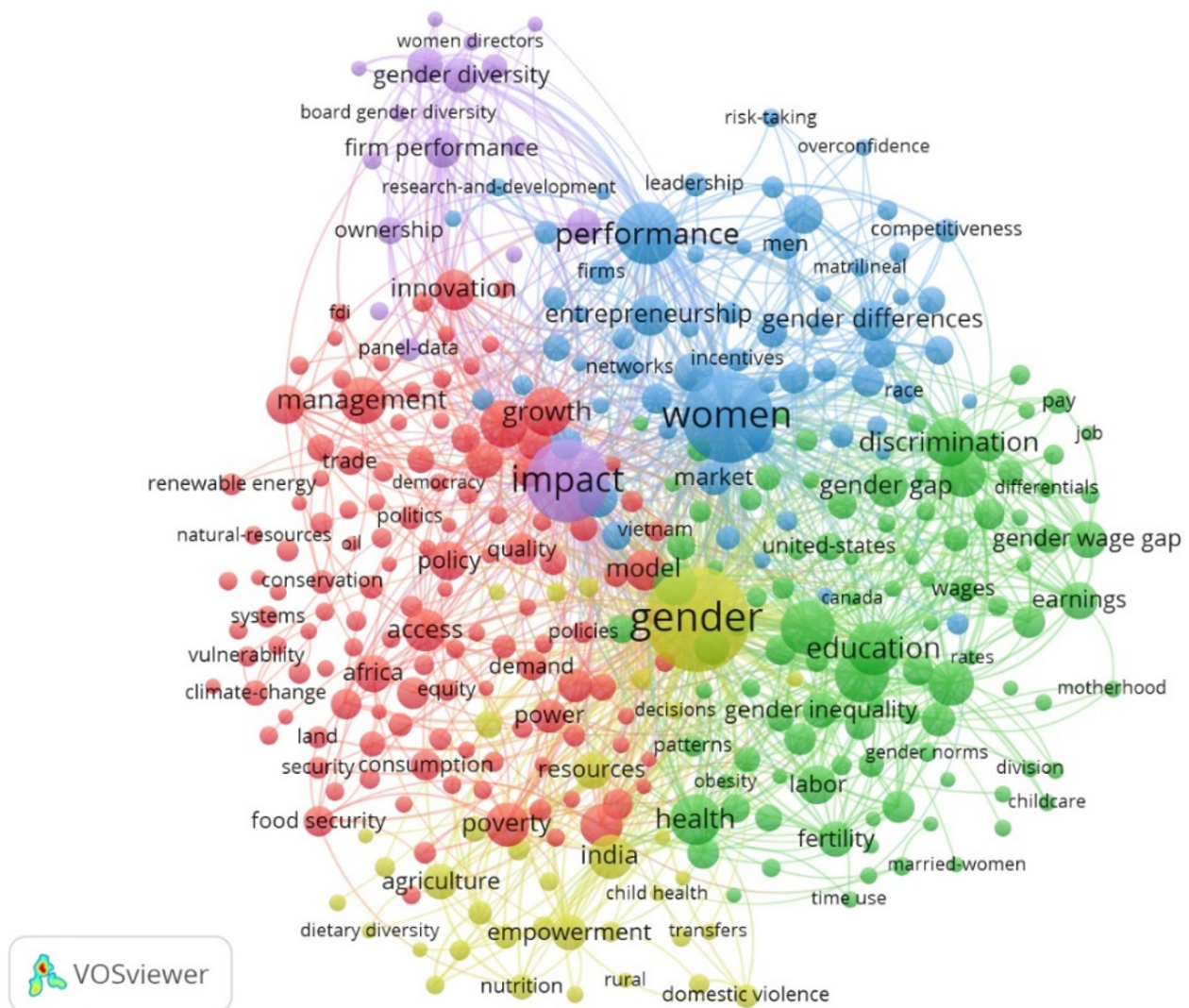


Figure 1. Bibliometric map: overview of keywords for gender studies

Source: compiled by the authors from Scopus database

This weak association may stem from the fact that studies in these clusters de-emphasize or even exclude discussions on gender differences and competitiveness. Most studies predominantly focus on factors influencing women's economic activity or education levels. In contrast, our study objectively analyzes gender disparities in resource access, particularly among rural women.

Although we found no explicit statistical relationships between clusters, preliminary conclusions suggest that gender differences influence perceptions of career growth importance and opportunity utilization (Forret & Dougherty, 2004; Buser et al., 2014; Yuan & Ma, 2022).

Firstly, women display high interest in career advancement, holding internal motivation and ambitions for leadership roles but still face barriers to representation in such positions. Secondly, despite their achievements in education and economic participation, women encounter employment discrimination, wage disparities, and obstacles to managerial advancement. Thirdly, successful women, especially in leadership, may not view adopting traditionally masculine traits as essential for career success, instead they tend to value qualities typically associated with women as advantageous. These phenomena are influenced by gender stereotypes, cultural expectations, and patriarchal structures.

Research methods

Gender gaps in resource access, particularly in rural Kazakhstan, have largely been overlooked in research literature. To address this gap, it is crucial to adopt methodological approaches that consider qualitative aspects of gender disparities, taking into account social, economic, and political factors. By examining how gender stereotypes and biases influence resource allocation decisions, we can uncover hidden mechanisms perpetuating gender inequalities. This understanding informs the development of effective strategies to tackle these disparities.

To gain a more in-depth understanding of women's resource access in rural Kazakhstan, we conducted a sociological survey encompassing various topics like quality of life, housing, education, social benefits, and income. We used multinomial logistic regression to assess regional disparities in resource access, identifying areas or groups facing higher restrictions. This method categorizes access levels and helps reveal hidden

mechanisms perpetuating gender inequalities. Coefficients were calculated to measure the impact of different variables on outcomes.

The survey was conducted offline in two stages, in May 2023 and in June 2023, spanning various regions from districts to villages. Out of 600 distributed questionnaires, 542 completed and returned surveys were compiled, resulting in a response rate of approximately 90.3%. This survey aimed to assess the quality of life of rural women, including housing conditions and access to primary resources such as education, social benefits, and income.

The study geographically covered 14 regions of Kazakhstan and the cities of republican significance: Astana, Almaty, and Shymkent, with a focus on rural areas and adjacent territories. The sample consisted of women aged 18 to 60 and was proportionally distributed across five age groups. Pensioners, family helpers, and respondents in education were excluded from the empirical analysis. A multi-stage stratified sampling procedure was employed, taking into account factors such as settlement type (city/village), gender, age, education, and income.

To collect data, we used questionnaires with both open and closed questions. Closed-ended questions allowed respondents to select from suggested options or evaluate parameters, while open-ended questions encouraged detailed, unrestricted responses. Participants were also asked to rate components using the Likert scale, reflecting their perceived significance.

Formalized interviews were conducted verbally, with responses recorded manually. The questionnaire comprised personal data and sections on access to social and economic resources.

Qualitative data processing comprised two stages. The first stage involved assessing women's access to social resources. Discriminatory coefficients and regional influence coefficients for social parameters were calculated using STATA 18 software. These computations unveiled the impact of factors like education, housing conditions, and social protection, enabling a deeper understanding of gender gaps and their underlying dynamics. Regional variations in the proportion of each indicator shed light on the causes and consequences of resource distribution inequalities across rural settlements.

The second stage focuses on evaluating access to economic resources. Discriminatory coeffi-

cients and regional influence coefficients for economic parameters were calculated using STATA 18 software. These computations showed the impact of factors such as income, business opportunities, and finances, offering insights into gender gaps and their root causes. Regional variations in the significance of each economic indicator provided further understanding of resource distribution inequalities in rural settlements.

The proposed methodology will help evaluate how effective state programs are in reducing disparities and identify what resources are needed to achieve development goals. This methodology will also contribute to advancing gender studies and bring attention to gender equality issues among policymakers and authorities at all levels.

Results

The methodological approaches developed earlier for assessing women's access to resources allow for a comprehensive analysis of the data that were collected for rural settlements in Kazakhstan. Quality control was conducted at all stages of data collection, using a stratification approach that considered the geographical distribution of rural women. The number of interviews varied depending on participant availability, with any rejected questionnaires excluded from the final dataset. Qualitative data analysis revealed that most respondents rate their access to social resources as average, with few marking it as low. Further details on coefficient distribution and threshold values are provided in Table 1.

From the coefficients provided, we can see apparent that the accessibility of procedures for obtaining benefits and social services is generally rated as moderate. However, a notable minority of respondents find these procedures difficult to access, highlighting the necessity for simplifying and enhancing information about them. The positive discriminant hidden coefficient (2.605) for the variable "Assessment of the access to benefits and social services" suggests that respondents who rated access to these procedures also showed insincerity in their survey responses. Additionally, the difference coefficients indicate that as the score on the grading scale increases, the differences between scores diminish. For instance, the majority of respondents (31.37%) rated their satisfaction as 3, indicating an average level.

The majority of respondents rated the quality of social services as average, implying that these

services are functional but require improved access to social resources. However, a significant minority rated these services as substandard, underscoring the need for quality improvement. The discriminatory power of this parameter concerning the quality of social services was highly significant ($z = 13.51$, $p < 0.000$), with a coefficient of 3.610, suggesting that this variable can capture the opinions of women with different perceptions of the quality of social services. Moreover, the thresholds for response categories displayed a systematic progression, all of which were statistically significant, indicating meaningful and predictable improvements in respondents' perceptions of social service quality.

Access to educational opportunities is crucial for social mobility and empowerment. In our survey it was often perceived as moderately accessible. However, a notable minority of women feel these opportunities are insufficient, indicating the necessity for expanding educational resources. Discrimination regarding educational opportunities was significant ($z = 13.76$, $p < 0.000$), with a coefficient of 2.274, confirming that respondents with a more favorable perception of educational opportunities tended to evaluate them positively.

Survey results also highlighted a general trend in assessing opportunities to improve housing conditions. While a small minority of rural women rated their living conditions as poor, pointing to the need for improvement, only a fraction expressed dissatisfaction with existing opportunities. There is a call to develop measures for housing acquisition under special government programs with preferential conditions. Discrimination in living conditions was significant ($z = 13.94$, $p < 0.000$), with a coefficient of 2.602, reflecting the reliability of assessment results.

As for local governments' efforts to ensure access to social resources, the majority of respondents rated them as average, indicating room for improvement. Fewer respondents found local government activities unsatisfactory. The discriminatory impact of local authorities' activities was significant ($z = 13.63$, $p < 0.000$), with a coefficient of 3.652. Statistically significant thresholds displayed an orderly progression, reflecting systematic improvements in respondents' assessments.

A multinomial logistic regression analysis was conducted to evaluate the impact of regional differences on access to social resources (see Table 2).

Table 1

Coefficients of discrimination and thresholds of perceived social parameters

Variable	Coefficients	Standard Error	z-value	P > z	[95% Confidence Interval]
Assessment of access to benefits and social services					
Discriminant	2.605	0.192	13.59	0.000	[2.230, 2.981]
Diff >=2	-1.069	0.085	-	-	[-1.235, -0.902]
Diff >=3	-0.588	0.068	-	-	[-0.721, -0.454]
Diff >=4	0.326	0.064	-	-	[0.202, 0.451]
Diff =5	1.088	0.086	-	-	[0.920, 1.256]
Assessment of the quality of social services					
Discriminant	3.610	0.267	13.51	0.000	[3.087, 4.134]
Diff >=2	-1.175	0.081	-	-	[-1.335, -1.016]
Diff >=3	-0.615	0.063	-	-	[-0.737, -0.492]
Diff >=4	0.348	0.059	-	-	[0.233, 0.463]
Diff =5	1.236	0.084	-	-	[1.072, 1.399]
Assessment of educational opportunities					
Discriminant	2.274	0.165	13.76	0.000	[1.950, 2.598]
Diff >=2	-1.555	0.111	-	-	[-1.773, -1.337]
Diff >=3	-0.951	0.083	-	-	[-1.113, -0.788]
Diff >=4	0.217	0.065	-	-	[0.090, 0.344]
Diff =5	1.152	0.092	-	-	[0.972, 1.333]
Assessment of housing conditions					
Discriminant	2.602	0.187	13.94	0.000	[2.236, 2.968]
Diff >=2	-1.791	0.119	-	-	[-2.024, -1.557]
Diff >=3	-0.995	0.081	-	-	[-1.153, -0.837]
Diff >=4	0.141	0.062	-	-	[0.020, 0.262]
Diff =5	1.223	0.091	-	-	[1.044, 1.401]
Assessment of local governments' efforts to ensure social resource accessibility					
Discriminant	3.652	0.268	13.63	0.000	[3.127, 4.178]
Diff >=2	-1.204	0.082	-	-	[-1.365, -1.044]
Diff >=3	-0.578	0.062	-	-	[-0.699, -0.457]
Diff >=4	0.475	0.060	-	-	[0.356, 0.593]
Diff =5	1.346	0.088	-	-	[1.174, 1.518]

Source: authors' calculations

The analysis of access to social resources in the regions of Kazakhstan showed clear imbalances in their development. Such areas as Almaty city (16.010), Astana city (15.208), and Karaganda region (17.872) demonstrate exceptionally high positive coefficients, indicating stable access to social resources. This suggests that these areas are better equipped and more efficient in providing social resources. Meanwhile, other regions, such as Akmola, Atyrau, Mangystau, North Kazakhstan, and Zhambyl, remain relatively lagging with low coefficients of access to social resources. These differences highlight the uneven distri-

bution and accessibility of social resources across regions. This highlights the need for a more balanced approach to infrastructure development and ensuring equal access to education, housing, and other critical social services throughout Kazakhstan. Strengthening local self-government and stimulating the private sector to improve the quality of life in less-developed regions is essential in this context.

The above observations confirm previous research evidence that educational attainment and literacy levels significantly influence rural women's access to social and economic resources (Sieg-

Table 2

Coefficients of multinomial logistic regression analysis by social parameters

Region	Coefficients as per estimations			
	2	3	4	5
Akmola	-0.293	-0.170	-0.387	-21.805
Aktobe	1.462	0.833	1.335	-20.660
Almaty	1.798	1.151	1.787	-20.373
East Kazakhstan	0.951	0.699	1.692	-19.967
Karaganda	17.872	16.775	2.055	-21.639
Mangystau	-0.840	-0.147	0.488	-22.451
Norh Kazakhstan	-.1473	-1.246	-0.610	-37.675
Atyrau	-0.265	-0.009	-0.32	-21.759
Pavlodar	-0.840	-0.147	0.488	-22.452
Shymkent city	-0.147	-1.246	-0.610	-37.675
Turkestan	0.654	16.672	2.061	-21.639
Zhambyl	0.156	16.002	17.736	-21.640
Almaty city	16.010	15.248	15.324	-7.210
Astana city	15.308	15.308	14.845	-6.303
_cons	0.147	1.246	0.610	21.758

Source: authors' calculations

mann, 2006; Oztunc et al., 2015; Carrasco Choque & Castillo Araujo, 2021). In particular, Stöckl et al. (2021) emphasized that women's economic empowerment and access to resources across rural and urban landscapes are linked to economic stress in families. This underscores the relationship between economic and social progress and the reduction of both social and gender-based inequalities. Yao and Ma (2021) argued that gender differences must be considered when developing strategies to improve the quality of life in less-developed regions, particularly regarding access to resources and economic opportunities. Thus, to ensure a more equitable distribution of social resources across all regions, especially in support of rural women, an integrated gendered approach is necessary to evaluate and utilize economic and social resources.

An interesting pattern is observed in regions like Pavlodar and Shymkent, where the coefficients significantly vary across categories, indicating inconsistency in access to different types of social resources. This variability could be attributed to regional policies, resource allocation, or specific local issues impacting the availability and quality of social resources. High positive coefficients in cities, such as Almaty and Astana, coupled with the extremely low coefficients in others like Mangystau and North Kazakhstan, paint

a picture of inequality in social resource distribution. This disparity calls for targeted interventions and policy measures to address the gaps and ensure a more equitable distribution of social resources across all regions.

Moving forward, we are going to analyze qualitative data regarding economic resource access. Results indicate that most respondents perceive their economic resource access as average. More detailed information on coefficient distribution and threshold values for perceived social parameters is available in Table 3.

The coefficients show that the perceived access to economic resources ranges from medium to low, highlighting the need to enhance support measures for rural women, including facilitating business startups. The positive discriminant coefficient (1.151) for assessing economic resource access indicates respondents' sincerity. However, significant coefficient fluctuations across different assessment levels suggest varying perceptions influenced by regional differences and individual economic situations.

Studying economic accessibility and the perception of entrepreneurship conditions is crucial for socioeconomic analysis. The significant discriminatory power ($z = 64.09$, $p < 0.000$) of the parameter relating to business potential (coefficient: 0.440) indicates it accurately reflects respondents'

opinions. Ordered threshold progression for response categories, all statistically significant, underscores their relevance in capturing diverse business potentials.

The coefficient estimate for “Availability of startup funding” (0.437, $z = 10.92$, $p < 0.000$) emphasizes its importance. Despite fluctuations across assessment levels, access to financial resources remains crucial for female entrepreneurs, contributing to reducing gender disparities in business.

Coefficients for “Opportunities for additional income” (0.456, $z = 47.61$, $p < 0.000$) indicate an average perception. However, a relatively high stan-

dard error suggests some instability in estimates, indicating the need for larger samples or more rigorous data collection and analysis methods to enhance result interpretation and reliability.

Finally, the survey results on local governments’ activities to ensure access to economic resources were also rated as average by the majority of respondents. The discriminant coefficient was 0.425 ($z = 47.61$, $p < 0.000$), with a standard error of 7.150, which means that although the estimates of the activities of local governments in the field of access to economic resources are average, their impact on the situation under consideration is statistically significant. These results can serve

Table 3

Coefficients of discrimination and thresholds of perceived economic parameters

Variable	Coefficients	Standard Error	z-value	P > z	[95% Confidence Interval]
Assessment of the access to economic resources					
Discriminant	1.151	0.376	0.19	0.000	[-0.737, 0.737]
Diff >=2	-0.733	0.770			[-0.151, 0.150]
Diff >=3	-6.880	0.167			[-0.328, 0.328]
Diff >=4	4.839	0.116			[-0.228, 0.228]
Diff =5	4.746	0.107			[-0.210, 0.210]
Availability of conditions for entrepreneurship					
Discriminant	0.440	0.006	64.09	0.000	[0.427, 0.454]
Diff >=2	0.666	0.315			[0.048, 1.284]
Diff >=3	-2.064	0.313			[-2.679, -1.450]
Diff >=4	2.603	0.338			[1.939, 3.267]
Diff =5	1.787	0.432			[0.939, 2.634]
Availability of startup funding					
Discriminant	0.437	0.007	47.61	0.000	[0.323, 0.351]
Diff >=2	0.470	0.384			[-0.282, 1.224]
Diff >=3	-1.799	0.383			[-2.551, -1.046]
Diff >=4	3.425	0.480			[2.483, 4.366]
Diff =5	1.453	0.565			[0.346, 2.561]
Opportunities for additional income					
Discriminant	0.456	8.819	10.92	0.000	[1.234, 2.934]
Diff >=2	-0.415	6.741			[-3.234, -1.589]
Diff >=3	-1.497	26.138			[-1.178, -0.837]
Diff >=4	2.231	34.033			[0.122, 0.268]
Diff =5	1.819	14.244			[1.129, 1.501]
Assessment of local governments’ efforts to ensure economic resource accessibility					
Discriminant	0.425	7.150	0.56	0.000	[-3.589, 4.440]
Diff >=2	-1.580	10.598			[-2.353, 1.192]
Diff >=3	-2.577	37.976			[-7.009, 7.855]
Diff >=4	1.861	25.955			[-9.011, 2.733]
Diff =5	3.090	35.847			[-7.169, 7.350]

Source: authors’ calculations

Table 4

Coefficients of multinomial logistic regression analysis by economic parameters

Region	Coefficients as per estimations			
	2	3	4	5
Akmola	-0.123	-15.862	-17.448	0.016
Aktobe	0.838	-15.552	-16.377	0.296
Almaty	2.119	-14.859	-15.145	1.683
East Kazakhstan	14.148	-1.007	-2.151	15.775
Karaganda	9.221	-0.347	-2.138	-1.621
Mangystau	0.327	-15.685	-16.937	-14.491
Norh Kazakhstan	-0.078	-16.938	-17.630	-15.301
Atyrau	-0.340	-16.245	-17.710	-0.188
Pavlodar	8.224	0.306	-17.243	-1.626
Shymkent city	9.234	-0.551	-1.243	-1.347
Turkestan	-15.822	-16.938	-17.630	-15.822
Zhambyl	-1.366	-16.245	-17.918	-15.091
Almaty city	-0.483	-15.734	-18.035	-14.885
Astana city	0.615	-15.840	-32.317	-15.074
_cons	0.078	16.938	17.630	-0.296

Source: authors' calculations

as a basis for further analysis and development of recommendations for improving the activities of local governments. Particular attention should be paid to identifying and overcoming barriers preventing women's access to economic resources.

Our findings align closely with Ahmed et al. (2014) and Voss et al. (2021), confirming that resource distribution disparities affect economic factors and social inequality. They emphasize the crucial role of financial resources and entrepreneurship opportunities in rural women's livelihoods and stress the importance of supportive measures and local government involvement in facilitating access to economic resources. These perspectives echo socio-economic analyses highlighting variability in economic resource accessibility due to regional differences and women's economic status. Meler (2020) and Matteazzi and Scherer (2021) underline institutional and regional disparities contributing to women's economic marginalization, advocating for favorable environments for women's entrepreneurship and financial independence. They stress the necessity of targeted support and local government action to remove barriers to economic resources. Recommendations are needed to foster environments conducive to women's financial independence and entrepreneurship, especially in regions with pronounced disparities.

A multidimensional logistic regression analysis assessing the impact of regional differences on economic resource access is presented in Table 4.

The analysis of access to economic resources in the regions of Kazakhstan also showed clear imbalances in their distribution. Regions such as East Kazakhstan (14.148), Shymkent city (9.234), and Karaganda (9.221) show the highest positive coefficients, indicating stable access to social resources. In other words, these regions compare favorably with other regions of the country due to the availability of economic services, business opportunities, and increased earnings. Other regions, such as Turkestan, Atyrau, and Zhambyl, showed low coefficients of access to economic resources. These differences highlight the uneven distribution and availability of economic resources across regions.

Moreover, interesting variations are observed in regions like Astana City and Pavlodar, where coefficients significantly differ across categories, indicating inconsistencies in accessing various economic resources. The assessment reveals substantial regional disparities in economic resource access, often stemming from unequal investment distribution and sector-specific focus. These disparities underscore the importance of region-specific economic development policies. It calls for

policymakers and government agencies to tailor programs to each region's unique needs and circumstances, fostering a more balanced distribution of economic resources and enhancing quality of life across all regions. A more targeted approach would help alleviate regional disparities, contributing to more sustainable national economic development.

Conclusions

Rural women in Kazakhstan face unique challenges, including limited access to land, finances, and benefits, hampering their quality-of-life improvement opportunities.

The proposed methodology combined multinomial logistic regression analysis and sociological surveys, enabling a comprehensive examination of regional disparities in rural women's access to social and economic resources. Findings reveal significant regional differences, with urban-centric areas like Almaty, Astana, and Karaganda having better resource access compared to

regions like Akmola, Atyrau, Mangistau, Northern Kazakhstan, and Zhambyl.

Calculation of discrimination coefficients and thresholds showed that respondents generally reported high access rates to social and economic resources. However, disparities in resource distribution across regions were evident: regions like Almaty city, Astana city, Shymkent city, East Kazakhstan, and Karaganda demonstrate higher effectiveness in providing and distributing resources to their population, particularly rural women, with other regions lagging behind.

To address these disparities, targeted efforts from both government and private sectors are necessary to improve rural women's resource access and to create opportunities for their development. These results can inform the evaluation of current rural support policies and aid in designing initiatives to enhance resource accessibility. Increasing sample size or employing stricter data collection and analysis methods could improve result interpretation and coefficient estimate reliability.

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ARTICLE INFO: received December 25, 2023; accepted April 9, 2024

ИНФОРМАЦИЯ О СТАТЬЕ: дата поступления 25 декабря 2023 г.; дата принятия к печати 9 апреля 2024 г.