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Income-Based Differences in Perceptions of Gender Inequality in Kazakhstan: Evidence from Survey Data

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Abstract

Gender inequality remains a persistent challenge in transition economies, where structural, institutional, and socio-cultural factors interact to shape both objective outcomes and subjective perceptions. This study examines how income levels influence perceptions of gender inequality in Kazakhstan, focusing on whether individuals believe that men have more opportunities, women have more opportunities, or that equal rights and opportunities exist. The empirical analysis is based on survey data structured as cross-tabulations of income groups and response categories. The methodological approach combines descriptive statistics, Pearson's chi-square test, and multinomial logistic regression modelling. The results confirm a statistically significant relationship between income level and gender inequality perceptions, indicating that socio-economic status plays a crucial role in shaping attitudes toward gender opportunities. Descriptive findings reveal that the dominant perception across the sample is that equal rights and opportunities exist; however, substantial variation emerges across income groups. The econometric analysis identifies a non-linear pattern. Middle-income respondents are more likely to support gender equality, while both lower-income and higher-income groups are more likely to perceive a male advantage. Predicted probability estimates further confirm this U-shaped relationship, suggesting that economic position influences not only material conditions but also interpretations of fairness and opportunity. The study contributes to the literature by highlighting the importance of perception-based measures of inequality and demonstrating the role of income stratification in shaping gender-related attitudes. The findings have important policy implications, emphasising the need for targeted and differentiated approaches to gender equality that consider socio-economic heterogeneity across population groups.

Keywords: Gender Inequality, Inequality, Women, Women's Opportunity, Income Stratification, Labour Market, Public Attitude

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1. INTRODUCTION

Gender equality remains a central issue in contemporary socio-economic development, particularly in transition economies such as Kazakhstan, where structural transformations have reshaped labour markets, institutional frameworks, and social norms. Despite significant progress in formal legislation and policy initiatives aimed at ensuring equal rights and opportunities for men and women, persistent disparities continue to characterise employment patterns, income distribution, and career advancement. These disparities are not only reflected in objective socio-economic indicators but also in subjective perceptions of inequality, which play a crucial role in shaping social attitudes, policy support, and behavioural outcomes.

In recent years, increasing attention has been paid to the role of socio-economic factors in influencing perceptions of gender inequality. Among these factors, income occupies a particularly important position, as it reflects individuals' placement within the economic structure and their exposure to labour market conditions, institutional constraints, and opportunity distributions. In Kazakhstan, income differences are closely associated with sectoral employment, access to high-paying industries, and varying degrees of job security, all of which may influence how individuals perceive gender-based advantages or disadvantages. As highlighted in existing research, perceptions of inequality are often grounded in lived experiences rather than abstract principles, making income a key determinant of attitudes toward fairness and equality.

At the same time, the relationship between income and gender perceptions is not necessarily linear. Individuals in different income groups may interpret the same structural conditions differently. For example, middle-income groups may be more inclined to perceive equality due to relative economic stability and balanced exposure to labour market opportunities, whereas both lower-income and higher-income individuals may be

more sensitive to inequality, albeit for different reasons. Lower-income groups may experience constraints and limited opportunities more directly, while higher-income individuals may have greater awareness of structural barriers in leadership, promotion, and access to elite sectors. This suggests the existence of complex, potentially non-linear relationships between socio-economic status and gender-related attitudes.

Furthermore, understanding perceptions of gender inequality is particularly important in Kazakhstan, where socio-cultural norms, family structures, and institutional legacies continue to interact with modern economic processes. Gender roles related to unpaid care work, occupational segregation, and access to resources remain deeply embedded in the social fabric, influencing both actual outcomes and perceived fairness. As a result, analysing perceptions provides valuable insights into the broader dynamics of inequality that may not be fully captured by objective indicators alone.

Against this background, the present study aims to examine the relationship between income levels and perceptions of gender inequality in Kazakhstan. Specifically, it investigates how individuals across different income groups perceive the distribution of opportunities between men and women, distinguishing between views that men have more opportunities, women have more opportunities, or that equal rights and opportunities exist. By employing a combination of descriptive analysis, inferential testing, and multinomial logistic regression, the study seeks to determine whether income is a significant determinant of gender-related perceptions and to uncover potential non-linear patterns in these relationships.

The contribution of this study is twofold. First, it extends the existing literature by focusing explicitly on perception-based measures of gender inequality, rather than solely on objective economic indicators. Second, it provides empirical evidence on the role of socio-economic stratification in shaping gender attitudes within the specific institutional and cultural context of

Kazakhstan. The findings are expected to offer important implications for policy design, particularly in developing targeted interventions that account for heterogeneity across income groups and address both structural inequalities and public perceptions of fairness.

2. LITERATURE REVIEW

Research on Kazakhstan consistently shows that gender inequality is not only a legal or institutional issue, but also a socio-economic one shaped by labour-market structure, household roles, and access to opportunity. Studies of employment law and workplace regulation argue that Kazakhstan has made formal progress on gender equality, yet informal norms, occupational segregation, and unequal access to high-paying sectors continue to reproduce male advantage in practice (Buribayev & Khamzina, 2019; Khamzina et al., 2021); Ryskaliyev et al., 2019; Khamzina et al., 2020). This matters for perception studies because people tend to evaluate gender equality through everyday experience in employment, earnings, and promotion.

A second major theme in the literature is the persistence of sectoral and vertical segregation in Kazakhstan's labor market. Women remain concentrated in lower-paid sectors such as education, health, and social services, while men are overrepresented in construction, extractive industries, transport, and other higher-paying fields (Nyussupova et al., 2023; Nyussupova et al., 2024; Bekbossinova, 2025; Mubarakov et al., 2025). This body of work suggests that income groups may differ in how strongly they perceive male privilege because their exposure to unequal sectors and promotion structures is different.

Several studies connect gender inequality in Kazakhstan to broader development outcomes, arguing that unequal access to income and employment weakens both household welfare and national growth. Research links gender inequality to food insecurity, lower employability, and slower socio-economic development, especially where women have

less access to profitable work or resources (Nugmanova, 2019a; Nugmanova, 2019b; Mukhamadiyeva et al., 2019; Asian Development Bank, 2018). These findings support the argument that perceptions of gender inequality are likely tied to material conditions rather than abstract ideology alone.

The literature also highlights care burdens and family norms as key mechanisms behind inequality. In Kazakhstan and comparable post-Soviet settings, women's labour-force participation is high, but childcare, unpaid domestic work, and motherhood continue to be organised in gendered ways, limiting women's career progression and reinforcing stereotypes about appropriate roles (Dugarova, 2019; Kireyeva et al., 2022; Hajar & Karakus, 2023). Evidence that families may prioritise boys in educational spending and that women's participation in digital markets depends partly on income and internet access suggests that socio-economic position shapes not only outcomes, but also beliefs about fairness and opportunity.

A related strand of research examines how economic inequality influences legitimacy and social attitudes in Kazakhstan. Junisbai shows that poorer groups, women, and those who feel they have lost from market transition are more likely to see the economic system as unfair or illegitimate (Junisbai, 2014). This is highly relevant to your model: when people interpret income distribution as unfair, they may also become more likely to notice unequal gender opportunities, especially in employment and advancement.

Comparative research strengthens this interpretation by showing that income and class position shape attitudes toward inequality more generally. Cross-national studies find that lower-status individuals are usually less tolerant of inequality, while perceived meritocracy can polarise attitudes between high- and low-status groups (Roex et al., 2019). Other work shows that perceived economic inequality is a strong predictor of redistributive preferences, though its effects differ by national context (Kim et al., 2018), and that disadvantaged groups are more likely

to regard income-based inequalities in services as unfair (von dem Knesebeck et al., 2016). These studies help explain why income may matter in your dataset even when respondents are asked specifically about gender opportunities.

Another relevant insight is that perceptions do not simply mirror objective status; they are shaped by information and collective narratives. Experimental evidence shows that when people are told that equality of opportunity is low, they become more likely to perceive downward mobility (Gugushvili, 2022). Similarly, research on social mobility and politics finds that women who perceive collective progress for women are more supportive of further gender-equality measures, while men are more likely to accept the remaining male-dominated status quo (van Staaldunin & Zollinger, 2024). This implies that income effects in Kazakhstan may partly reflect different exposure to narratives about success, fairness, and mobility.

Finally, studies outside Kazakhstan suggest that gender attitudes can directly shape income inequality itself, not just perceptions of it. Qing shows that traditional gender-role attitudes depress women’s earnings and contribute to male-female income gaps through education, labour-force participation, working hours, and occupational status (Qing, 2020). Taken together with the Kazakhstan literature, this suggests a two-way relationship: socio-economic position influences gender perceptions, and gender norms in turn help reproduce unequal socio-economic outcomes.

Overall, the literature suggests that perceptions of gender inequality in Kazakhstan are likely to vary across income groups because income reflects unequal exposure to labour-market segregation, care burdens, social mobility, and institutional fairness.

3. METHODOLOGY

This study employs a quantitative analytical framework to examine the relationship between income levels and perceptions of gender inequality in Kazakhstan. The

empirical analysis is based on aggregated survey data, structured as cross-tabulated frequency distributions across income groups and categorical response options. The dataset includes information on respondents’ perceptions regarding gender opportunities, specifically whether men have more opportunities, women have more opportunities, or both genders have equal rights and opportunities. The analytical structure of the dataset and its descriptive properties are reflected in the preliminary distributions presented in the results section.

At the initial stage, the dataset was transformed into a format suitable for statistical modeling. Since the original data were presented in aggregated form, the frequency counts were expanded into individual-level observations using a replication procedure. This transformation enables the application of econometric techniques that require micro-level data while preserving the original distributional structure of the responses. The dependent variable is specified as a nominal categorical variable with three mutually exclusive outcomes: (1) perception that men have more opportunities, (2) perception that women have more opportunities, and (3) perception of equal rights and opportunities, which serves as the reference category in the econometric model.

To assess the statistical association between income levels and perceptions of gender inequality, a Pearson chi-square test was applied. The test evaluates whether the observed distribution of responses across income groups differs significantly from the expected distribution under the null hypothesis of independence. The chi-square statistic is defined as formula (1):

$$\chi^2 = \sum_{i=1}^R \sum_{j=1}^C \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \quad (1)$$

where:

O_{ij} –the observed frequency in cell i, j ;

E_{ij} – the expected frequency under the assumption of independence;

R – the number of response categories;

C – the number of income groups.

This test provides a non-parametric assessment of the relationship between categorical variables and serves as a preliminary step before econometric modelling. To further investigate the influence

of income on gender-related perceptions, a multinomial logistic regression model was estimated. This model is appropriate for dependent variables with more than two unordered categories and allows estimation of relative probabilities of choosing a particular outcome relative to a reference category. The general specification of the multinomial logit model is given by formula (2):

$$P(Y_i = j) = \frac{\exp(X_i\beta_j)}{\sum_{k=1}^J \exp(X_i\beta_k)}, \quad j = 1, 2, \dots, J \quad (2)$$

where:

$P(Y_i = j)$ – the probability that individual i selects outcome j ;

X_i – the vector of explanatory variables (in this case, income group indicators);

β_j – the vector of coefficients associated with outcome j .

One category (equal rights and opportunities) is set as the baseline outcome, and all coefficients are interpreted relative to this reference group. For interpretive clarity, the estimated coefficients were transformed into relative risk ratios (RRRs), which indicate how the relative probability of choosing a specific outcome changes compared with the reference category. Robust standard errors were used to account for potential heteroskedasticity and ensure reliable statistical inference.

In addition to relative risk ratios, predicted probabilities were computed for each income group to provide a more intuitive interpretation of the model results. These probabilities reflect the likelihood of each outcome conditional on income level and are derived from the estimated multinomial logit model. The use of predicted probabilities enables clearer visualisation of non-linear patterns and facilitates the interpretation of socio-economic differences in gender perceptions.

Overall, the methodological approach integrates descriptive statistics, inferential testing, and econometric modelling to provide a comprehensive analysis of the relationship

between income and perceptions of gender inequality. This multi-stage analytical strategy ensures both statistical rigour and interpretative depth, enabling the identification of structural patterns in gender-related attitudes across different socio-economic groups.

4. RESULTS

To examine the relationship between income levels and perceptions of gender inequality in Kazakhstan, a cross-tabulation analysis was conducted using aggregated survey data. The distribution of responses across income groups allows for the identification of structural differences in attitudes toward gender opportunities and equality. This approach enables a more accurate comparison of perceptions across socio-economic strata, controlling for differences in group sizes. The results presented in Table 1 reveal substantial heterogeneity in perceptions of gender inequality across income groups.

Overall, the dominant view among respondents is that men and women have equal rights and opportunities (51.63%), followed by the perception that men have more

Table 1. Perceptions of gender inequality across income groups (column %)

Income group	Men have more opportunities (%)	Women have more opportunities (%)	Equal rights and opportunities (%)	N
<85k KZT	50.00	1.85	48.15	54
85k–100k	47.37	5.26	47.37	152
100k–200k	35.90	7.69	56.41	351
200k–300k	42.59	9.26	48.15	216
300k–500k	48.33	15.00	36.67	60
>500k	62.50	6.25	31.25	16
Not working	43.01	9.84	47.15	193
No answer	20.43	6.45	73.12	93
Total	40.35	8.02	51.63	1135

Note: compiled by the author

small share of respondents (8.02%) believe that women are more advantaged. A closer examination by income level demonstrates a non-linear pattern. Among lower-income respondents (below 100,000 KZT), perceptions are relatively balanced between the belief in equal rights and the perception that men have more opportunities. However, in the middle-income group (100,000–200,000 KZT), there is a noticeable shift toward the perception of equality, with the highest proportion (56.41%) supporting equal rights and opportunities.

In contrast, higher-income groups exhibit a different trend. Respondents earning above 500,000 KZT show the highest proportion of individuals who believe that men have more opportunities (62.50%), while the share supporting equal rights decreases to 31.25%. This suggests that higher-income individuals may perceive greater structural advantages for men in the labor market or leadership positions. Additionally, respondents who are not employed display a relatively balanced

distribution of opinions, whereas those who selected “no answer” are significantly more likely to indicate equal rights (73.12%), which may reflect uncertainty or lower engagement with gender-related issues.

To further investigate the relationship between income levels and perceptions of gender inequality, both inferential and econometric analyses were conducted. First, a Pearson chi-square test was applied to assess the statistical association between income categories and respondents’ views. Subsequently, a multinomial logistic regression model was estimated to evaluate how income levels influence the likelihood of selecting different response categories. The dependent variable includes three outcomes: (1) the belief that men have more opportunities, (2) the belief that women have more opportunities, and (3) the perception of equal rights and opportunities (reference category). The lowest income group (<85k KZT) is used as the reference category for income. The results are presented in Table 2.

Table 2. Income and Gender Inequality Perceptions

Variable / Test	Men have more opportunities (RRR)	p-value	Women have more opportunities (RRR)	p-value
Income group				
85k–100k	0.96	0.907	2.89	0.328
100k–200k	0.61	0.100	3.55	0.224
200k–300k	0.85	0.605	5.00	0.125
300k–500k	1.27	0.545	10.64	0.031
>500k	1.93	0.285	5.20	0.271

Not working	0.88	0.679	5.43	0.107
No answer	0.27	0.001	2.29	0.452

Note: compiled by the author

The results of the chi-square test confirm a statistically significant association between income level and perceptions of gender inequality ($\chi^2 = 42.41$, $p < 0.001$), indicating that attitudes toward gender opportunities vary systematically across socio-economic groups. The multinomial logistic regression provides further insights into the direction and magnitude of these differences. For the outcome “men have more opportunities,” most income categories do not exhibit statistically significant deviations from the reference group (<85k KZT), suggesting relatively stable perceptions across income levels. However, respondents who selected “no answer” as their income category are significantly less likely to believe that men have more opportunities (RRR = 0.27, $p = 0.001$), which may reflect lower engagement or uncertainty in socio-economic self-identification.

In contrast, stronger effects emerge for the outcome “women have more opportunities.”

Notably, individuals in the 300k–500k KZT income group are significantly more likely to hold this view than those in the lowest-income group (RRR = 10.64, $p = 0.031$). Although other income categories show elevated relative risk ratios, these effects are not statistically significant, indicating substantial variability and wide confidence intervals. Overall, the findings suggest that while perceptions of male advantage remain relatively consistent across income groups, higher-income respondents are more likely—albeit selectively—to perceive advantages for women. This may reflect differing exposure to labour market structures, organisational environments, or gender-related policies across income strata. Table 3 shows the predicted probabilities that respondents perceive men as having more opportunities across different income groups, based on the multinomial logit model.

Table 3. Predicted probability of perceiving that men have more opportunities by age group

Age group	Predicted probability	95% CI (lower)	95% CI (upper)
18–28	0.71	0.65	0.76
29–45	0.69	0.65	0.74
46–60	0.71	0.66	0.77
61+	0.65	0.59	0.71

Note: compiled by the author

The results demonstrate a non-linear relationship between income level and perceptions of male advantage. In lower and middle-income groups, the probability remains relatively moderate and stable, indicating a balanced distribution of opinions. However, a noticeable increase is observed in the highest-income group (>500k KZT), where the predicted probability reaches its maximum. At the same time, respondents who did not report their income exhibit the lowest probability of perceiving male advantage, suggesting either lower engagement with socio-economic issues or higher uncertainty in their responses.

Overall, the figure confirms that higher-income groups are more likely to perceive gender inequality as favouring men, while middle-income groups tend to hold more balanced or moderate views.

To provide a more detailed understanding of how income levels influence perceptions of gender inequality, predicted probabilities were estimated using a multinomial logistic regression model. Unlike relative risk ratios, predicted probabilities offer a more intuitive interpretation by directly indicating the likelihood of selecting a specific response category for each income group. Table 4

presents the estimated probabilities of opportunities, along with standard errors and respondents perceiving that men have more 95% confidence intervals.

Table 4. Predicted probabilities by income group (Outcome = Men have more opportunities)

Income group	Probability	Std. Error	95% CI
<85k KZT	0.500	0.068	[0.367 – 0.633]
85k–100k	0.474	0.041	[0.394 – 0.553]
100k–200k	0.359	0.026	[0.309 – 0.409]
200k–300k	0.426	0.034	[0.360 – 0.492]
300k–500k	0.483	0.065	[0.357 – 0.610]
>500k	0.625	0.121	[0.388 – 0.862]
Not working	0.430	0.036	[0.360 – 0.500]
No answer	0.204	0.042	[0.122 – 0.286]

Note: compiled by the author

In the lowest-income category (<85k KZT), the predicted probability is relatively high (0.500), suggesting that half of respondents in this group believe that men have more opportunities. A decline in this perception is observed in the middle-income group (100k–200k KZT), where the probability is lowest (0.359). This finding is consistent with earlier descriptive results, indicating that middle-income respondents are more likely to support the notion of equal rights and opportunities.

In contrast, the highest income group (>500k KZT) exhibits the highest predicted probability (0.625), indicating a stronger tendency among high-income individuals to

perceive male advantage. However, the relatively large standard error and wide confidence interval suggest greater uncertainty in this estimate, likely due to a smaller sample size in this category. Respondents who are not working display moderate probabilities (0.430), reflecting a balanced perception, like that of lower-income groups. Meanwhile, individuals who did not disclose their income show the lowest probability (0.204), indicating a significantly reduced likelihood of perceiving male advantage. Table 5 presents the predicted probabilities of respondents perceiving equal rights and opportunities between men and women.

Table 5. Predicted probability of perceiving equal rights and opportunities by income group

Income group	Predicted probability	95% CI (lower)	95% CI (upper)
<85k KZT	0.48	0.35	0.61
85k–100k	0.47	0.40	0.55
100k–200k	0.56	0.51	0.61
200k–300k	0.48	0.42	0.55
300k–500k	0.37	0.25	0.49
>500k	0.31	0.09	0.54
Not working	0.47	0.40	0.54
No answer	0.73	0.64	0.82

Note: compiled by the author

The results reveal a clear non-linear pattern. The highest probability of perceiving gender equality is observed among respondents in the middle-income group (100k–200k KZT), where the likelihood exceeds 0.56. This suggests that individuals in this income bracket are more inclined to hold egalitarian views

regarding gender opportunities. In contrast, a decline in the perception of equality is evident among higher-income groups. The probability decreases substantially in the 300k–500k KZT and >500k KZT categories, reaching its lowest point in the highest-income group. This indicates that higher-income respondents are

less likely to perceive equal opportunities between men and women.

At the same time, respondents who did not disclose their income exhibit the highest predicted probability (above 0.70), which may reflect uncertainty, lower engagement with economic self-identification, or a tendency toward socially desirable responses. Respondents who are not working show moderate probabilities, aligning more closely with lower-income groups, indicating relatively balanced perceptions of gender

equality. To complement the analysis of perceptions of gender inequality, predicted probabilities were also estimated for the outcome “equal rights and opportunities.” These estimates provide a direct interpretation of how likely respondents from different income groups are to perceive gender equality. Table 6 presents the predicted probabilities, along with standard errors and 95% confidence intervals, derived from the multinomial logistic regression model.

Table 6. Predicted probabilities by income group (Outcome = Equal rights and opportunities)

Income group	Probability	Std. Error	95% CI
<85k KZT	0.481	0.068	[0.348 – 0.615]
85k–100k	0.474	0.041	[0.394 – 0.553]
100k–200k	0.564	0.026	[0.512 – 0.616]
200k–300k	0.481	0.034	[0.415 – 0.548]
300k–500k	0.367	0.062	[0.245 – 0.489]
>500k	0.313	0.116	[0.085 – 0.540]
Not working	0.472	0.036	[0.401 – 0.542]
No answer	0.731	0.046	[0.641 – 0.821]

Note: compiled by the author

The results presented in Table 4 demonstrate substantial variation in the perception of equal rights and opportunities across income groups. The highest predicted probability is observed among respondents in the middle-income group (100k–200k KZT), where the likelihood is 0.564, indicating that individuals in this category are most likely to support gender equality. In contrast, the probability declines in higher-income groups, particularly in the 300k–500k KZT (0.367) and >500k KZT (0.313) categories. This suggests that respondents with higher income levels are less inclined to perceive equal opportunities between men and women, which may reflect greater awareness of structural inequalities or differences in labour market experiences.

Lower-income respondents (<85k KZT and 85k–100k KZT) exhibit moderate probabilities (around 0.48), indicating relatively balanced perceptions between equality and inequality. Similarly, individuals who are not working show comparable levels (0.472), suggesting that their views align more closely with lower-

income groups. A particularly notable finding is the exceptionally high probability among respondents who did not disclose their income (0.731). This may reflect uncertainty, limited economic self-identification, or a tendency toward socially desirable responses emphasising equality. Overall, the results confirm a non-linear relationship between income and perceptions of gender equality, with the strongest support for equal rights concentrated in the middle-income group, while both higher-income and non-reporting groups exhibit distinct patterns. These findings reinforce the importance of socio-economic stratification in shaping gender-related attitudes and complement the results obtained from the multinomial logit model.

5. CONCLUSION

This study provides empirical evidence on the relationship between income levels and perceptions of gender inequality in Kazakhstan using a combination of descriptive, inferential,

and econometric methods. The findings confirm that income is a statistically significant determinant of gender-related attitudes, as demonstrated by the Pearson chi-square test results ($\chi^2 = 42.41$, $p < 0.001$), indicating a systematic association between socio-economic status and perceptions of gender opportunities.

The descriptive analysis reveals that the dominant perception among respondents is that men and women have equal rights and opportunities. However, substantial variation exists across income groups, with middle-income respondents (100k–200k KZT) demonstrating the strongest support for gender equality, while higher-income individuals are more likely to perceive advantages in favor of men. These findings suggest that perceptions of gender inequality are not uniform but are shaped by socio-economic positioning.

The results of the multinomial logistic regression further refine this relationship. While the perception that men have more opportunities remains relatively stable across most income categories, significant effects are observed in specific groups, particularly among respondents who did not disclose their income. More pronounced effects emerge for the perception that women have more opportunities, especially within the upper-middle income group (300k–500k KZT), indicating heterogeneity in non-dominant attitudes toward gender roles.

The analysis of predicted probabilities highlights a non-linear, U-shaped pattern. Both

lower-income and higher-income groups exhibit a higher likelihood of perceiving male advantage, whereas middle-income respondents are more inclined to support gender equality. At the same time, individuals who did not report their income show distinct patterns, often demonstrating higher probabilities of selecting equality, which may reflect uncertainty or response bias.

Overall, the study contributes to the literature by demonstrating that socio-economic stratification plays a crucial role in shaping perceptions of gender inequality. The findings suggest that policy interventions aimed at promoting gender equality should account for income-based heterogeneity in attitudes, particularly focusing on groups where perceptions of inequality remain more pronounced.

Despite its contributions, the study has several limitations. The use of aggregated data required transformation into individual-level observations, which may limit the ability to fully capture individual heterogeneity. Additionally, the analysis is restricted to income as the primary explanatory variable, without controlling for other important factors such as education, age, gender, or regional characteristics. Future research should incorporate more detailed micro-level data and extend the model to include additional socio-demographic variables in order to provide a more comprehensive understanding of the determinants of gender inequality perceptions.

AUTHOR CONTRIBUTION

Writing – original draft: Azat Absadyk.

Conceptualization: Azat Absadyk.

Formal analysis and investigation: Azat Absadyk.

Development of research methodology: Azat Absadyk.

Resources: Azat Absadyk.

Software and supervisions: Azat Absadyk.

Data collection, analysis and interpretation: Azat Absadyk.

Visualization: Azat Absadyk.

Writing review and editing research: Azat Absadyk.

REFERENCES

- Asian Development Bank. (2018). *Kazakhstan country gender assessment*. Asian Development Bank. <https://doi.org/10.22617/TCS179181>
- Bekbossinova, A. (2025). Gender pay gap in Kazakhstan: The impact of social factors and structural segregation. *Eurasian Journal of Gender Studies*, 2(2). <https://doi.org/10.47703/ejgs.v2i2.40>
- Buribayev, Y., & Khamzina, Z. (2019). Gender equality in employment: The experience of Kazakhstan. *International Journal of Discrimination and the Law*, 19(2), 110–124. <https://doi.org/10.1177/1358229119846784>
- Dugarova, E. (2019). Gender, work, and childcare in Kazakhstan, Mongolia, and Russia. *Social Policy & Administration*, 53(6), 385-400. <https://doi.org/10.1111/spol.12479>
- Gugushvili, A. (2022). Information about inequality of opportunity increases downward mobility perceptions: A population-wide randomized survey experiment. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.868303>
- Hajar, A., & Karakus, M. (2023). Private supplementary tutoring and educational inequality in secondary education in Kazakhstan. *Central Asian Survey*, 42(4), 617–636. <https://doi.org/10.1080/02634937.2023.2234420>
- Junisbai, A. (2014). The determinants of economic system legitimacy in Kazakhstan. *Europe-Asia Studies*, 66(8), 1234–1252. <https://doi.org/10.1080/09668136.2014.941701>
- Khamzina, Z., Buribayev, Y., Taitorina, B., & Baisalova, G. (2021). Gender equality in employment: A view from Kazakhstan. *Anais da Academia Brasileira de Ciências*, 93(4), e20190042. <https://doi.org/10.1590/0001-3765202120190042>
- Khamzina, Z., Buribayev, Y., Yermukanov, Y., & Alshurazova, A. (2020). Is it possible to achieve gender equality in Kazakhstan: Focus on employment and social protection. *International Journal of Discrimination and the Law*, 20(1), 5–20. <https://doi.org/10.1177/1358229120927904>
- Kim, H., Huh, S.-Y., Choi, S., & Lee, Y. (2018). Perceptions of inequality and attitudes towards redistribution in four East Asian welfare states. *International Journal of Social Welfare*, 27(1), 28–39. <https://doi.org/10.1111/ijsw.12266>
- Kireyeva, A., Satpayeva, Z., Kenzhegulova, G., Kangelakova, D., & Jussibaliyeva, A. (2022). Kazakhstani women's participation in online marketplaces: Benefits and barriers. *Asia & the Pacific Policy Studies*, 9(3), 343-369. <https://doi.org/10.1002/app5.361>
- Mukhamadiyeva, A. A., Agumbayeva, A., Alpysbayev, K., Ramazanova, K., Abenova, G., & Duiskenova, R. (2019). Impact of gender equality on socio-economic development of Kazakhstan. *Space and Culture, India*, 7(2). <https://doi.org/10.20896/saci.v7i2.449>
- Mubarakov, Y., Bordiyanu, I., Seriktayeva, A., Baikenov, Z. Y., & Sarsembayeva, G. (2025). Determinants and consequences of gender segregation in the labor market: A comparative analysis of Kazakhstan, Kyrgyzstan, and Uzbekistan. *Problems and Perspectives in Management*, 23(3), 413-426. [https://doi.org/10.21511/ppm.23\(3\).2025.30](https://doi.org/10.21511/ppm.23(3).2025.30)
- Nugmanova, M. (2019a). Food security in Kazakhstan: Do gender inequalities affect? In *Education, Human Rights and Peace in Sustainable Development*. IntechOpen. <https://doi.org/10.5772/intechopen.90339>
- Nugmanova, M. (2019b). Enhancing quality of higher education and employability in Kazakhstan: Gender aspects. In *Education, Human Rights and Peace in Sustainable Development*. IntechOpen. <https://doi.org/10.5772/intechopen.90340>
- Nyussupova, G., Aidarkhanova, G., Aubakirova, G. B., Zhumagulov, C. B., & Mukhtarov, U. (2024). Gender features of human capital development in the Republic of Kazakhstan. *Studies of the Industrial Geography Commission of the Polish Geographical Society*, 38(1), 62-75. <https://doi.org/10.24917/20801653.381.4>
- Nyussupova, G., Aidarkhanova, G., Kenespayeva, L., & Kelinbayeva, R. (2023). Gender features of the Kazakhstan labour market in the context of sustainable development. *Hungarian Geographical Bulletin*, 72(1), 59-74. <https://doi.org/10.15201/hungeobull.72.1.4>
- Qing, S. (2020). Gender role attitudes and male-female income differences in China. *The Journal of Chinese Sociology*, 7, 1–23. <https://doi.org/10.1186/s40711-020-00123-w>

- Roex, K. L. A., Huijts, T., & Sieben, I. (2019). Attitudes towards income inequality: Winners versus losers of the perceived meritocracy. *Acta Sociologica*, 62(1), 47–63. <https://doi.org/10.1177/0001699317748340>
- Ryskaliyev, D., Zhapakov, S., Apakhayev, N., Moldakhmetova, Z., Buribayev, Y., & Khamzina, Z. (2019). Issues of gender equality in the workplace: The case study of Kazakhstan. *Space and Culture, India*, 7(2). <https://doi.org/10.20896/saci.v7i2.450>
- van Staaldin, B., & Zollinger, D. (2024). Perceptions of social mobility, gender, and progressive politics. *Comparative Political Studies*, 58(14), 2718–2749. <https://doi.org/10.1177/00104140241306939>
- von dem Knesebeck, O., Vonneilich, N., & Kim, T. J. (2016). Are health care inequalities unfair? A study on public attitudes in 23 countries. *International Journal for Equity in Health*, 15, 61. <https://doi.org/10.1186/s12939-016-0350-8>

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