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FROM A WOMEN'S LEAD TO A MEN'S LEAD: THE GENDER GAP IN DIGITAL PAYMENTS IN KAZAKHSTAN AND THREE CENTRAL ASIAN NEIGHBOURS, 2021-2024

Abstract: For most of the last decade, women in Kazakhstan were slightly more likely than men to have a financial account. Using the World Bank's Global Findex surveys of 2021 and 2024, I compared women and men in Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan in account ownership, digital payments and saving. In Kazakhstan the gap reversed. In 2021, 81.8% of women and 73.6% of men made or received a digital payment; in 2024 the figures were 82.1% and 88.3%. The change in the gap, 14.3 percentage points, is larger than its approximate 95% margin of error of 7.9 points. The reversal happened because men's use grew by 14.7 points while women's stayed almost the same. Accounts and saving moved in the same direction. Two other indicators changed at the same time: the share of men who received wages into an account rose by 22.9 points, and the share of women who received a government transfer or pension fell by 9.4 points. The neighbours followed different paths. In Tajikistan a gap in favour of men opened, in Uzbekistan an earlier male advantage in accounts and saving almost disappeared, and in Kyrgyzstan the gap hardly changed. These are country-level survey figures and cannot show causes, but they suggest that in Kazakhstan the way people receive money, through wages or government transfers, matters for who uses digital finance.

Keywords: gender gap; digital payments; financial inclusion; Global Findex; Kazakhstan; Central Asia; wages

Introduction

In most discussions of financial inclusion, the gender gap means one thing: women are less likely than men to have an account, save formally or use digital payments. Using individual data from 98 developing countries, Demirgüç-Kunt, Klapper and Singer found that gender remains significantly related to the use of financial services even after controlling for income, education, employment, age and rural residence, and that legal restrictions on women's work and inheritance help explain where the gap is largest [1]. A study of 144 countries in the 2017 Findex data also found statistically significant differences between men and women in account ownership, saving and digital payments [2].

Kazakhstan did not fit this picture. In every Findex round from 2011 to 2021, women in Kazakhstan were slightly more likely than men to have an account: 43.7% against 40.2% in 2011, 60.3% against 56.9% in 2017 and 83.6% against 78.3% in 2021 [3]. In digital payments, women were also ahead in 2017 and 2021. The 2024 round is the first in which men are ahead on both measures. Because the overall level is high, 87.0% of adults in Kazakhstan had an account in 2024 [3], a change like this can stay hidden inside the national average.

Research on women's finance in Kazakhstan has mostly looked at credit. Bekturganova and Kurmasheva studied how the structure of the banking sector affects women's access to loans and found that credit for women did not grow in proportion to banking resources [4], and

Kireyeva and Kurmasheva linked women's entrepreneurial lending to regional output and the share of wages in GDP [5]. At the regional level, Poghosyan showed that the probability of having a financial institution account in the Caucasus and Central Asia is lower than in Central and Eastern Europe across gender, income and education groups [6]. What has not been described, as far as I could find, is how the gender gap in everyday digital payments changed between the two latest Findex rounds, and whether Kazakhstan's change is part of a regional pattern.

This study asks three questions:

- How did the gap between men and women in digital payments, accounts and saving in Kazakhstan change between 2021 and 2024, and is the change larger than the survey's margin of error?
- Did the gap change because women's use fell, or because men's use grew?
- Did the same thing happen in Kyrgyzstan, Tajikistan and Uzbekistan?

Data and method

Data. All figures come from the Global Findex Database 2025, which contains the 2021 and 2024 survey rounds [7, 8], and were downloaded from the World Bank's data service on 6 October 2026 [3]. In each economy Gallup interviews about 1,000 randomly selected people aged 15 and older. In all four countries the interviews were face to face in both rounds, so a change in how the survey was carried out cannot explain the results [9, 10]. In Uzbekistan in 2024, the Republic of Karakalpakstan, about 6% of the population, was excluded from the sample [10]. I used only the published percentages for women and men, not individual answers.

Indicators. The main indicator is the share of adults who made or received a digital payment in the past year, which includes paying with a card or phone, paying bills online and receiving wages, transfers or other payments into an account. I also used account ownership, account ownership at a bank or similar financial institution, having saved any money, having saved at a bank, and owning a debit card. To look at what was behind the change in Kazakhstan, I split digital payments into made and received, and used three more indicators: having received wages, having received wages into an account, and having received a government transfer or pension. For Kazakhstan in 2021 mobile money was not measured, so in that year the share with an account is the same as the share with a bank account (83.6% of women and 78.3% of men). To compare like with like across years, I therefore also report the bank account indicator.

Calculations. For each indicator the gap is the share of men minus the share of women, in percentage points, so a negative gap means women are ahead. The change in the gap is the gap in 2024 minus the gap in 2021. All values were calculated from the unrounded figures in the database.

Margins of error. The database does not give standard errors, so I estimated them. The Findex methodology notes give the sample size and the design effect for each country and year, for example 1.46 for Kazakhstan in 2021 and 1.24 in 2024 [9, 10]. I assumed that each sample is split evenly, 500 women and 500 men, and estimated the standard error of each percentage as the square root of the design effect times $p(1 - p)/500$. The standard error of a gap combines those of the two groups, and the standard error of a change combines those of the two years, because the two rounds are independent samples. I report 95% margins of error as 1.96 standard errors and call a change clear only when it is larger than its margin. These are rough estimates, because the real number of women in each sample is not exactly 500.

Results

Kazakhstan: a women's lead became a men's lead

Table 1 shows the main indicators for Kazakhstan. In 2021 women were ahead or level on every measure, and in 2024 men were ahead on every measure.

Table 1. Women and men in Kazakhstan, Global Findex 2021 and 2024

Indicator (% of adults 15+)	W 2021	M 2021	Gap 2021	W 2024	M 2024	Gap 2024	Change in gap
Made or received a digital payment	81.8	73.6	-8.2	82.1	88.3	+6.2	+14.3 (±7.9)
Account	83.6	78.3	-5.3	85.7	88.5	+2.8	+8.1 (±7.5)
Account at a bank or similar institution	83.6	78.3	-5.3	81.9	86.8	+4.9	+10.2 (±7.7)
Saved any money	42.2	38.0	-4.2	49.5	56.8	+7.2	+11.5 (±10.0)
Saved at a bank or similar institution	19.3	18.9	-0.5	24.4	30.7	+6.3	+6.8 (±8.5)
Owens a debit card	62.2	57.5	-4.6	66.5	69.1	+2.6	+7.2 (±9.8)

Note: W = women, M = men. Gap = men minus women, percentage points; a negative gap means women are ahead. Numbers in brackets are approximate 95% margins of error (see Data and method). Gaps and changes are calculated from unrounded values. Source: Global Findex Database 2025; author's calculations.

In 2021, women in Kazakhstan were ahead of men. The share of women using digital payments was 81.8%, compared with 73.6% of men. This created a gender gap of -8.2 percentage points, meaning that women used digital payments more often. By 2024, the situation had reversed. Men reached 88.3%, while women reached 82.1%, so the gap became +6.2 percentage points in favour of men. This change was mainly caused by the rapid increase among men. The share of men using digital payments increased by 14.7 percentage points, while the share among women increased by only 0.3 percentage points. Therefore, the reversal was not mainly because women used digital payments less. Instead, men caught up and moved clearly ahead.

For digital payments, the gap in each year and the change between the years are all larger than their margins of error: the gap was -8.2 (±6.2) in 2021 and +6.2 (±4.9) in 2024. For accounts the picture is less sharp. In each year taken alone, the account gap is within the margin of error, but the change of 8.1 points is just larger than its margin of 7.5, and with the bank account indicator, which is measured the same way in both years, the change is 10.2 (±7.7). The change in saving any money, 11.5 points, is also just larger than its margin of 10.0. The smaller changes in saving at a bank and debit card ownership go in the same direction but are within the margin of error.

Figure 1 shows that the 2024 result was not a continuation of an old trend. Women had a small lead in account ownership in every round from 2011 to 2021, and their lead in digital payments was largest in 2021. In 2024 both lines crossed.

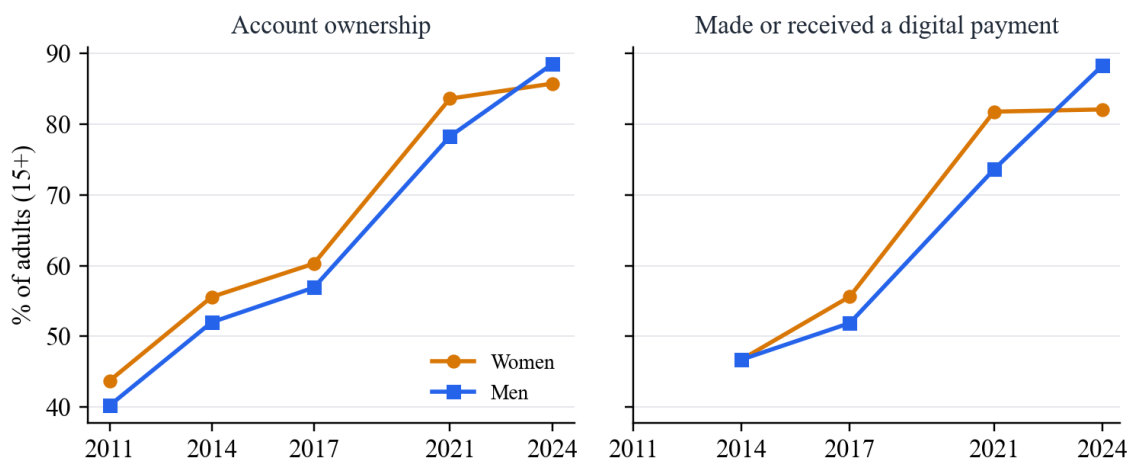


Figure 1. Kazakhstan: account ownership and digital payments, women and men, 2011-2024. Digital payments were not measured in 2011.

Kazakhstan and its neighbours

In Uzbekistan, 2021, men were clearly ahead of women in digital payment use. 48.5% of men used digital payments compared with 35.9% of women, creating a gap of 12.6 percentage points in favour of men. However, by 2024, this difference had become much smaller. Women's digital payment use increased to 48.6%, while men's increased to 51.3%. As a result, the gender gap fell to only 2.7 percentage points. This means that women made much faster progress than men. Women's use increased by 12.7 percentage points, compared with only 2.8 percentage points for men. Therefore, Uzbekistan can be seen as a mirror of Kazakhstan because the countries started with different gender patterns. Kazakhstan moved from a female advantage to a male advantage, while Uzbekistan moved from a strong male advantage towards almost equal use.

The results for Kyrgyzstan and Tajikistan show different trends. In Kyrgyzstan, the gender gap changed only slightly, from +2.9 percentage points in 2021 to +4.3 in 2024. Both women and men increased their use strongly, but men remained ahead. In Tajikistan, the gender gap became much wider. In 2021, men were only 0.9 percentage points behind women, but by 2024 men were ahead by 18.5 percentage points. This was mainly because men's digital payment use increased from 32.6% to 58.8%, while women's use increased only from 33.6% to 40.3%.

Table 2. Gender gaps in digital payments and account ownership in four Central Asian countries, 2021 and 2024

Country	Payments 2021	Payments 2024	Change	Account 2021	Account 2024	Change
Kazakhstan	-8.2	+6.2	+14.3 (±7.9)	-5.3	+2.8	+8.1 (±7.5)
Kyrgyzstan	+2.9	+4.3	+1.4 (±9.7)	+2.8	+2.1	-0.6 (±9.6)
Tajikistan	-0.9	+18.5	+19.5 (±10.6)	+0.2	+15.7	+15.5 (±10.8)
Uzbekistan	+12.6	+2.7	-9.9 (±10.7)	+11.4	-2.2	-13.6 (±10.7)

Note: Payments = made or received a digital payment; Account = account ownership. All values are gaps, men minus women, in percentage points; changes are given with approximate 95% margins of error. Source: Global Findex Database 2025; author's calculations.

The margins of error for the neighbours are wider than for Kazakhstan, because their levels are closer to 50%, where survey estimates are least precise, and their design effects are larger. Two of the four stories are clear in the data. Tajikistan's widening is larger than its margin both for digital payments and for accounts. Uzbekistan's narrowing is clear for accounts (-13.6 ± 10.7) and for saving any money (-11.1 ± 9.9), but for digital payments the change of -9.9 is just inside its margin of 10.7 , so on that indicator alone it could still be survey noise. In Kyrgyzstan none of the changes is close to its margin. Figure 2 shows the digital payment gaps with their margins.

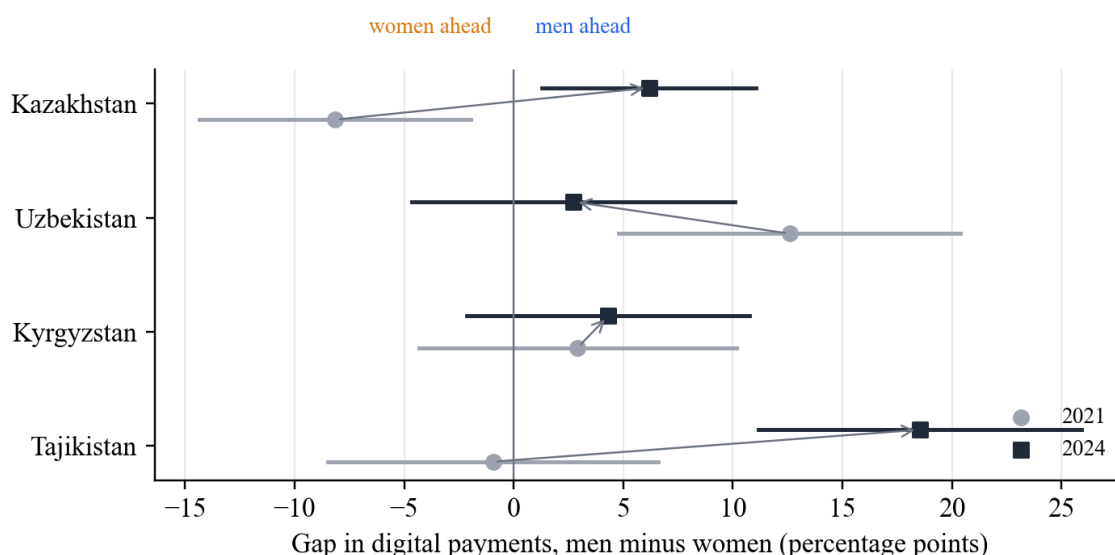


Figure 2. Gender gap in digital payments, men minus women, 2021 and 2024. Lines show approximate 95% margins of error.

What changed inside Kazakhstan

Digital payments can be made or received, and the two parts moved differently (Figure 3). The share of women who made a digital payment changed little, from 70.5% to 68.4%, while the share of men rose from 61.3% to 72.6%. The share who received a digital payment rose for both, by 9.8 points for women and by 24.4 points for men.

Received payments include wages, government transfers and pensions, and money sent by family. Two of these moved very differently for women and men. The share of men who received wages into an account rose from 36.0% to 58.9%, and the share of women from 31.1% to 44.1%. More men than women receive wages in the first place: in 2024, 66.6% of men and 49.5% of women said they had received wages in the past year. At the same time, the share of women who received a government transfer or pension fell from 34.8% to 25.4%, a fall of 9.4 points (± 6.6), while among men it fell less, from 23.1% to 19.6%. In 2021 women had been 11.8 points more likely than men to receive such payments.

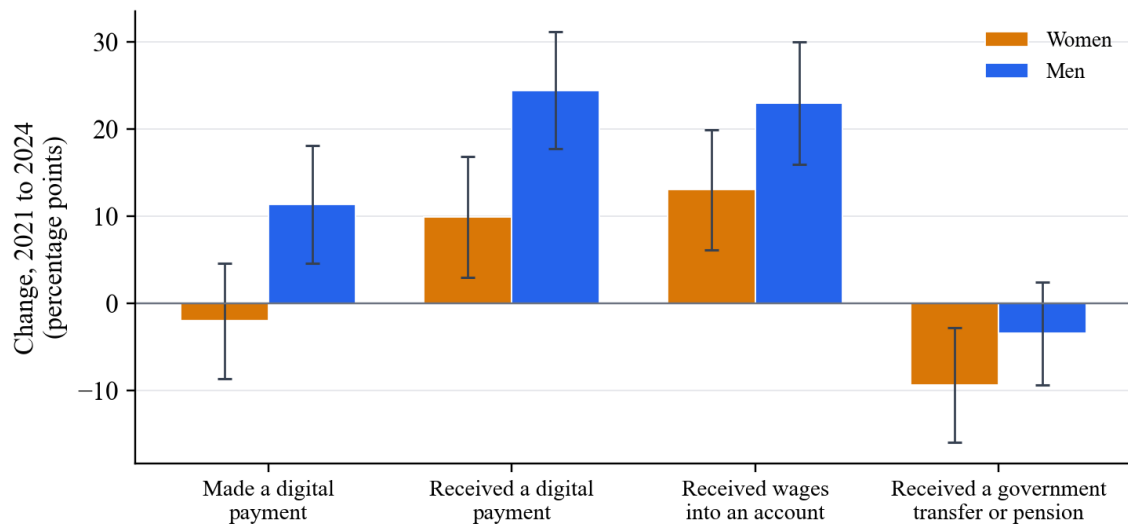


Figure 3. Kazakhstan: change between 2021 and 2024 in four indicators, women and men. Lines show approximate 95% margins of error.

Discussion

The first result is that Kazakhstan's reversal did not happen because women dropped out of digital finance. In 2024, 82.1% of women made or received a digital payment, almost exactly as many as in 2021. The gap changed because men, who were behind, moved past them. This matters for how the change is described. A headline saying that women are now behind would be true, but it would suggest a loss that did not happen.

The second result is about where the change came from. The two indicators that moved most, wages into an account for men and government transfers for women, both concern how people receive money. Men receive wages more often than women, so when more wages are paid into accounts, men's digital payment figures rise more. Women in Kazakhstan were more likely than men to receive government transfers or pensions, and in 2024 fewer women received them than in 2021. The 2021 round was carried out during the COVID-19 pandemic, when, as the Findex report notes, mobility restrictions and health policies increased demand for digital services [7], so part of women's 2021 lead may have depended on payments that were larger or more common at that time. The data cannot show this directly. They only show that both changes happened in the same three years as the reversal.

If this reading is right, the gender gap in Kazakhstan's digital payments may now depend more on the labour market than on access to accounts, because almost everyone already has one. Experimental evidence suggests that the channel through which money arrives matters for women. In India, women whose public sector wages were paid directly into their own bank accounts, together with training in how to use them, worked more and changed their views about women's work [11]. In Kenya, the effects of mobile money on poverty were larger for female-headed households [12]. Both studies are from countries very different from Kazakhstan, but they support the idea that it matters where and to whom payments go.

The neighbours show that there is no single Central Asian pattern. Tajikistan moved the way Kazakhstan did, with men pulling ahead, but from a much lower level of use. Uzbekistan moved the other way: women caught up on accounts, saving and debit cards, and the earlier male advantage almost disappeared. Kyrgyzstan grew fast for both women and men without a change in the gap. Earlier work found that the region as a whole is behind Central and Eastern Europe for women and men alike [6]. My results add that, inside the region, the direction of the

gender gap changed in different ways in just three years. For Kazakhstan, this means the gender gap needs to be tracked in every survey round and for each type of payment, because a national average of 87% account ownership can hide a reversal like this one.

Limitations

This study has several limitations. First, it uses published country averages, not individual answers, so it cannot test whether the women and men who stopped or started using digital payments are the same people who changed how they receive wages or transfers. Second, the margins of error are my own approximations based on an even split between women and men; the official standard errors would be somewhat different. Third, mobile money was not measured in Kazakhstan in 2021, so changes in mobile money accounts could only be described for 2024. Fourth, Uzbekistan's 2024 sample excluded Karakalpakstan. Finally, the comparison covers only two rounds three years apart, and the 2021 round was carried out in an unusual pandemic year, so the next Findex round is needed to see whether the men's lead in Kazakhstan lasts.

Conclusion

Between 2021 and 2024, the gender gap in digital payments in Kazakhstan turned from a lead for women of 8.2 percentage points into a lead for men of 6.2 points. The change is larger than its approximate margin of error, and accounts and saving moved in the same direction. Women's use did not fall; men's use grew by 14.7 points. In the same period, more men started receiving wages into an account, and fewer women received government transfers or pensions. Kazakhstan's neighbours followed three different paths: a widening gap in Tajikistan, a narrowing gap in Uzbekistan and almost no change in Kyrgyzstan. For a country where almost every adult already has an account, the gender gap in digital finance may depend more on how people receive their money than on who has an account.

Data availability

All data are publicly available from the World Bank Global Findex Database 2025 [3]. The table of all values used in this paper and the script that calculates every number and margin of error are available from the author on request.

AI and tools disclosure

I collected the account and digital payment figures for the four countries from the Global Findex database myself and wrote the description of the results. My mentor added the other indicators, checked all values against the World Bank data service, estimated the margins of error and helped prepare the figures and the rest of the text. Generative AI tools were used for language editing and to help with the calculations and figures in Python. No data, results or citations were generated by AI: all numbers come from the World Bank database, and all cited sources were checked against the originals. I have reviewed the final manuscript and take full responsibility for it.

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