


Digitalization and Its Impact on the Adaptation of the Small and Medium-Sized Enterprises in Russian Economy

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Abstract: In 2023, the Russian index in the annual Information and Communication Technologies Development Index (ICT, calculated by the International Telecommunication Union of the United Nations) was estimated at 88.9. According to experts, this is a fairly high value, exceeding the indicators of most countries, which, along with Russia, are included by researchers in the group of countries with above-average incomes. According to data from the Institute for Statistical Studies and Economics of Knowledge of the National Research University Higher School of Economics, over the past few years, the number of organizations in the country using technologies for collecting, processing and analyzing big data (30.4%), working with cloud services (28.9%) and using data center services (16.5%) has increased. In 2023, the share of the IT industry in GDP was 1.96%, which is 1.5 times more than five years ago. So far, digitalization is developing unevenly in different industries. Artificial intelligence is gradually beginning to perform the functions of a digital assistant in a number of industries. The level of digitalization will largely depend on the economic development of the country. The survey analyzes the level of digitalization in Russia, the factors determining the development of digitalization now and in the future, impact of the digitalization on the adaptation of the Russian enterprises.

1 INTRODUCTION

In 2023, the Russian index in the annual Information and Communication Technologies Development Index (ICT, calculated by the International Telecommunication Union of the United Nations) was estimated at 88.9^b. According to experts, this is a fairly high value, exceeding the indicators of most countries, which, along with Russia, are included by researchers in the group of countries with above-average incomes. According to data from the Institute for Statistical Studies and Economics of Knowledge of the National Research University Higher School of Economics, over the past few years, the number of organizations in the country using technologies for

collecting, processing and analyzing big data (30.4%), working with cloud services (28.9%) and using data center services (16.5%) has increased. In 2023, the share of the IT industry in GDP was 1.96%, which is 1.5 times more than five years ago. So far, digitalization is developing unevenly in different industries. Artificial intelligence is gradually beginning to perform the functions of a digital assistant in a number of industries. The level of digitalization will largely depend on the economic development of the country. From 2019 to 2024, Russia's digital maturity (Digital IQ, an indicator of digital development) reached 74.4% instead of the planned 64.2% (Digitalization in Russia: trends and forecasts, 2025).

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According to Statista, the volume of the AI market in the United States in 2023 amounted to \$37.2 billion, about the same amount was the market of all European countries, including Russia. According to the same data, Russia accounts for \$5 billion in 2023. Russian experts from the Sberbank Software confirmed that the growth rate of the AI market in 2023 was estimated at 30-40% both in Russia and in the world, and in 2024 some reports quite significantly increased the estimate, for example, in Bain Technology Report, the growth rate forecast until 2027 was already 37%. Some Russian experts estimate the growth rates of 37% and a total market volume of P900 billion (\$12 bln) in 2024. They indicate high dynamics, but a stable level of venture capital investment shows the caution of private capital and a possible lack of success in commercializing startups. Government funding (P9,2 billion/\$128 mln) is a positive factor in development of digitalization and AI. In 2025, further growth can be expected thanks to government orders and large AI implementations in the corporate sector, but the overall situation will strongly depend on macroeconomic stability. Experts considered that government funding seemed insufficient for large-scale projects, which shifts the focus to the commercial sector. They expect the growth in 2024-2025 on the level of 30-40%, but without active private capital it will be difficult to accelerate development. at the level of 40-55%. Group of companies VK has the practice of co-financing AI projects by the state at the end of 2024, which implies investments in projects for testing and pilot implementation of AI technologies to solve applied problems. In medicine, the amount of state support in various formats can be 70-75% of the total investment in AI projects. The important role plays the institutions such as the Skolkovo Foundation. In addition, the state financing of purchases of medical products with AI has become a serious catalyst for their practical application. According to the index of readiness of priority sectors of the Russian economy for the introduction of AI, healthcare was added to the leading financial sector and ICT in 2023. AI becomes possible to use in education, science, social sphere and many other spheres.

Digitalization is developing unevenly in different industries. Among the reasons: shortage of personnel and the need for accelerated import substitution due to the departure of foreign vendors. Artificial intelligence is gradually beginning to perform the functions of a digital assistant in a number of industries. The public sector is the leader in terms of digitalization. To 2023, all planned socially

significant services were transferred online, and the number of users of the Gosuslugi portal doubled and reached 109 million people.

IT costs in public sector exceeded 540 billion rubles in period 2022-2024. It is associated with import substitution, as well as with the general trend towards digitalization of most sectors of the economy. Russia ranks 10th in the World Bank's GovTech Maturity Index in terms of the level of digitalization of public administration. Traditionally, the digital leaders are the financial sector (banking), IT, retail, e-commerce, and in recent years, the manufacturing industry. Experts attribute this to the ever-growing competition, as well as to drastic changes in these industries: changing sales markets and suppliers of raw materials, restructuring logistics chains, the departure of suppliers of foreign IT solutions. The most advanced sectors of the economy in the application of high technologies and artificial intelligence (AI) are those where there is high competition. For such companies, the use of modern IT solutions is a method of fighting for the consumer. Therefore, the speed of implementation of advanced IT solutions is maximum here.

Based on the experts opinions in the development of digitalization and artificial intelligence we can predict the following trends:

- 1) The level of digitalization will largely depend on the economic development of the country:
 - According to Rosstat (Federal Statistics Service), the Russian economy grew by 4.1% in 2024. This is an acceleration compared to 2023, when GDP increased by 3.6%;
 - According to IMF experts, "strong corporate investment" is supporting growth;
 - Finance Ministry analysts note the impact of the budget impulse on economic growth in the Russian economy;
 - Our research show that those small and medium-sized businesses that increased their R&D expenses, as well as the number of personnel, were most effectively able to adapt to the changes in the external environment (e.g. sanctions pressure) in the short term.
- 2) According to the experts estimation the new market for digital financial instruments will grow at least fivefold in Russia in the next few years and reach a trillion rubles by 2027
- 3) This year, the domestic market for digital financial instruments has already shown significant growth — from 60 to 217 billion rubles.
- 4) The drivers of market growth are the accelerating digitalization of business, the popularity

of tokens, and the intention of the government and companies to use digital financial instruments for international payments.

5) According to the experts estimation digitalization and the development of artificial intelligence will continue to develop in Russia.

6) Robotization will increase in the world.

7) According to the Institute for Statistical Research and Knowledge Economics of the Higher School of Economics, the possibility of intellectualization of industrial robots, primarily due to the integration of AI solutions, is one of the key areas of development of industrial robotics. It is expected that the global AI market in robotics, which amounts to \$17 billion, will show stable growth (about 25% annually).

2 METHODOLOGY

According to Rosstat, the Russian economy will grow by 4.1% in 2024. This is an acceleration compared to 2023, when growth was 3.6%. According to IMF experts, strong corporate investment is supporting this growth (The IMF named the main factors driving Russian economic growth,2025). At the same time, analysts at the Russian Ministry of Finance note the impact of the budgetary impulse on economic growth in the Russian economy(The Ministry of Finance reported a record "budget impulse" in 2023,2025).

In 2024, we conducted our first study of the adaptation strategies of Russian enterprises. This study examined how the adaptation strategies of Russian small and medium-sized businesses, implemented in response to sanctions imposed by the United States and the European Union following the start of the special military operation, impacted their short-term performance. The study examined the relationship between the company's key financial indicator—revenue—and strategies related to innovation and human resource management. We also examined the impact of the companies' international activities, their use of government support, marketing and other changes, and key firm characteristics on the effectiveness of their response to sanctions pressure. Data collection was organized with the support of the federal and regional centers of the My Business national project. A total of 129 Russian small and medium-sized businesses from seven federal districts participated in the study.

In 2025, a second study was conducted examining the adaptation strategies of small and medium-sized businesses in the face of environmental changes. Questions were added to the questionnaire to analyze

the impact of government support on adaptation. The second study was conducted with the support of the Chamber of Commerce and Industry of the Leningrad Region. Ninety-six small and medium-sized businesses from various federal districts participated in the survey.

The ordered choice model was used to process the data.

3 RESULTS AND DISCUSSION

Stage 1 of the study (2024)

An analysis using an ordered choice model revealed that those small and medium-sized businesses that increased their R&D spending and staffing were most effective in adapting to Western sanctions pressure in the short term. This is likely due to the need to import technologies and attract personnel capable of developing new solutions. This type of firm policy helps ensure sustainability and potentially a long-term competitive advantage. The remaining factors studied did not have a significant impact on the financial success of these companies, which may be due to the insufficient time period from the onset of the sanctions regime (Markovskaya E. I., Kukovenko E. S., Shirshov A. M.,2025).

The results demonstrate that manufacturing companies coped with the sanctions significantly better than service companies. Exporters with ties to Western countries prior to the start of the special military operation are less adaptable than other firms. This study confirms the low effectiveness of sanctions imposed by Western countries: even among the most vulnerable entities in the Russian economy—small and medium-sized enterprises—they are showing increased activity and increased investment aimed at building long-term sustainability and competitiveness. The obtained results indirectly confirm the positive effect of domestic investment on economic growth and also indicate the effectiveness of government policy towards business in the sanctions era.

Stage 2 of the Study (2025)

General Analysis of Respondent Responses

For the 2025 study, several questions were added to the questionnaire to analyze the impact of government support on the development of small and medium-sized businesses' adaptation strategies in the face of environmental changes. Ordered choice analysis was used to process the data (Markovskaya E., Anohin N., Maximov A. ,2025).

Analysis of respondents' responses regarding the impact of environmental changes on company operations allowed us to systematize certain value judgments. Economic sanctions impacted all respondents, causing widespread disruptions. Many respondents reported the inability to conduct international business following the departure of Western partners and clients. For those operating in internationally oriented sectors, the departure of foreign firms led to a sharp decline in foreign contracts and collaborations. This forced firms to shift their focus to domestic markets and seek alternative suppliers to ensure continued operations.

In addition to the loss of sales markets, companies faced significant financial and logistical difficulties due to the sanctions. Respondents involved in cross-border trade described how blockages of international payment systems (such as the SWIFT network) led to increased transaction times and increased risks in receiving payments. These complications disrupted supply chains and cash flows, forcing companies to resort to complex workarounds for routine operations. Some also faced increased transaction costs amid exchange rate volatility and general uncertainty. Notably, an indirect consequence of this was staffing issues: several respondents noted difficulties retaining qualified personnel during this period, which were exacerbated by efforts to mobilize internal resources, leading to the layoffs of some employees.

However, several respondents pointed to opportunities related to sanctions. One respondent noted that the withdrawal of Western competitors effectively "opened up a niche in the market," significantly reducing competition and allowing the company to strengthen its market position. This respondent's perspective highlights that while sanctions have had overall negative consequences, they have also eliminated some competitors, creating opportunities for flexible domestic companies to expand.

Several participants provided examples of how government support has helped improve the stability of their operations. For example, one respondent noted that government subsidies play a significant role in funding the expansion of production lines and the development of new products, both of which are strategic moves. Another respondent took advantage of a subsidized import support loan (with an interest rate of only 5%) to purchase necessary imported materials, while others received government-supported discounts on new commercial vehicles, which reduced transportation costs and improved their cash flow. Furthermore, some respondents

utilized government-funded training programs to enhance the skills of their employees.

In addition to official programs, broader government actions have also impacted the situation of sanctioned companies. One respondent noted that officials provide promotional support for the company, such as through high-ranking government officials attending local exhibitions. Respondents also pointed to macro-level initiatives, such as agreements between the Russian Central Bank and Chinese banks, which provide alternative payment channels and mitigate the impact of Western financial restrictions. Despite the broad reach of these support mechanisms, not all firms were able or willing to take full advantage of them, and several respondents indicated that they received virtually no direct assistance. For example, a respondent who is a foreign-owned subsidiary reported receiving no government support at all.

Furthermore, even among those who utilized government programs, some considered the support insufficient or difficult to access. For example, one respondent noted a high debt burden that made it impractical to take out additional subsidized loans, and there was a perception that much of the available support was overly "formal." According to the respondent, the company urgently needed "real measures" to assist business, such as simplifying the tax system and creating technology parks. The respondent company from the light industry sector reported that it did not receive any significant government support and noted that there were practically no cases of receiving government assistance in this sector. However, the respondent emphasized the importance of government support for small and medium-sized businesses, especially in the current economic situation, when many light industry companies are struggling to survive.

Results of econometrics analysis of the second stage (2025)

Variable name	Variable type
Y_SG_ordered	Categorical
Sanctions_influence	Categorical
Sanctions_adaptation	Categorical
RD	Categorical
IT	Categorical
Staff	Categorical
Salary	Categorical

Learning	Categorical
Export_EU	Dummy
Industry_services	Dummy
Gov_finance	Dummy
Gov non finance	Dummy

Table of variables used in R studio

Before proceeding to analyze the econometric model, let us consider descriptive statistics for the variables of interest. The dependent variable is a factor variable from 1 to 4, where 1 is decreased by more than 20%, 2 is decreased by up to 20%, 3 is increased by up to 20%, and 4 is grew by more than 20%. More than 66% of companies increased their revenue in the 23rd year and the mean of the factor variable is 3.04.

Table 1: Descriptive statistics of the dependent variable.

Y_SG_ordered	Freq.Freq	Percent.Freq	Cum.Percent
1	13	13,54	13,54
2	3	3,13	16,67
3	47	48,96	65,63
4	33	34,38	100,00
Total	96	100,00	

Source: Author calculation

Table 2: Descriptive statistics of the variables.

	Mean	p50	Min	Max	SD	CV
Sanctions_influence	3,38	3,5	1	5	1,22	36,03
Sanctions_adaptation	3,63	4	1	5	1,24	34,26
RD	2,29	2	1	3	0,63	27,54
IT	2,41	2	1	3	0,59	24,55
staff	2,32	3	1	3	0,80	34,49
salary	2,49	3	1	3	0,66	26,70
Learning	1,90	2	1	3	0,69	36,29
Consulting	0,28	0	0	1	0,45	160,70
Exporter_to2022	0,14	0	0	1	0,34	254,00
Export_EU	0,08	0	0	1	0,28	333,40
Export_now	0,13	0	0	1	0,33	265,96

Export_reor	0,07	0	0	1	0,26	358,44
Import_before	0,23	0	0	1	0,42	184,36
Import_now	0,20	0	0	1	0,40	202,37
Marketing	2,31	2	1	3	0,67	28,97
Reorientation	0,45	0	0	1	0,50	111,60
gov_finance	0,48	0	0	1	0,50	104,80
gov_non_finance	0,11	0	0	1	0,32	279,44
size	0,33	0	0	1	0,47	142,16
age	2,67	2	1	5	1,37	51,23
Industry_Services	0,40	0	0	1	0,49	124,19
High_educ_manager	0,91	1	0	1	0,29	32,33
Y_SG_ordered	3,04	3	1	4	0,96	31,61

Source: Author calculation

Consider the variable of how sanctions have affected SME companies. This variable is a factor variable from 1 to 5 where one sanctions did not affect the company at all, again sanctions had a very strong effect on the companies. Only 9.3% of the companies were not affected by the sanctions while other companies felt their effect. The mean value of the variable 3,38, means that for many companies the effect of sanctions was very strong.

The variable of how companies adapted to the sanctions shows that only 5.2% of companies were extremely unsuccessful in adapting to the sanctions while more than 61,5% of companies adapted to the sanctions successfully or more than successfully. On average, companies successfully adapted to sanctions, with a mean of 3,63.

Multicollinearity analyze

To construct multiple logit regression to avoid multicollinearity analyze the correlation matrix that show the preliminary relationship between the variables. The correlation coefficient with the dependent variable is significant for the variables adaptation to sanctions, RD, staff, salary, Learning, Marketing, government finance, size of company and high education of manager. A pattern can be found that the change in revenue is positively influenced by all factors except Exporter to 2022 and Export EU. There is no multicollinearity between the variables.

Table 3: Multicollinearity matrix.

	Y_SG_ordered
Sanctions_influence	0,1125

Sanctions adaptation	0,4628
RD	0,2573
IT	0,0440
staff	0,5562
salary	0,2477
Learning	0,2135
Consulting	0,1665
Exporter to2022	-0,0809
Export EU	-0,0919
Export now	0,0494
Export reor	0,0297
Import before	0,0281
Import now	0,1424

Marketing	0,2247
Reorientation	0,0703
gov finance	0,3288
gov non finance	0,1211
size	0,2002
age	0,0748
Industry Services	0,0315
High educ manager	0,2755

Source: Author calculation

Ordinal logit regression

An ordinal logit regression was constructed to test the hypotheses and examine the effect on the dependent variable. The model chi-square is 47.429 with 19 d.f. tells us that the model is significant and it is reasonable to interpret the results.

Table 4: Ordinal logit regression.

Variable	Value	Std. Error	t value	p-value	CI 2.5%	CI 97.5%
Sanctions influence	0,1386	0,2152	0,6441	0,52	-0,2847	0,5638
Sanctions adaptation	0,1135	0,2431	0,4669	0,64	-0,3694	0,5930
RD	0,5361	0,4767	1,1246	0,26	-0,3817	1,5017
IT	-0,0299	0,5015	-0,0597	0,95	-1,0241	0,9547
staff	1,2752	0,3958	3,2223	0,00	0,5251	2,0894
salary	0,1918	0,3659	0,5242	0,60	-0,5295	0,9157
Learning	0,3042	0,3797	0,8012	0,42	-0,4359	1,0609
Consulting	0,6989	0,6117	1,1426	0,25	-0,4913	1,9278
Exporter to2022	-0,4922	1,8159	-0,2711	0,79	-4,3418	2,9645
Export EU	0,3068	1,6609	0,1847	0,85	-3,0074	3,7852
Export now	1,2940	1,6228	0,7973	0,43	-1,5978	4,9893
Export reor	-1,8844	1,5160	-1,2430	0,21	-5,1815	1,0167
Import before	0,7277	1,2445	0,5847	0,56	-1,7766	3,2048
Import now	-0,1359	1,2415	-0,1095	0,91	-2,5733	2,4005
Marketing	0,2655	0,4251	0,6246	0,53	-0,5633	1,1152
Reorientation	-0,3395	0,4963	-0,6841	0,49	-1,3243	0,6306
gov finance	0,6959	0,6313	1,1022	0,27	-0,5310	1,9573
gov non finance	0,3974	0,7753	0,5125	0,61	-1,0933	2,0032
size	0,0071	0,5523	0,0128	0,99	-1,0809	1,0952
Industry Services	-0,4026	0,4931	-0,8164	0,41	-1,3793	0,5648

High educ manager	0,9948	0,8147	1,2211	0,22	-0,5762	2,6514
1 2	5,2169	2,0363	2,5620	0,01	-0,2847	0,5638
2 3	5,6401	2,0517	2,7490	0,01	-0,3694	0,5930
3 4	9,0331	2,2161	4,0761	0,00	-0,3817	1,5017

Source: Author calculation

To identify significant factors, we will use z statistics. If P-value is less than 0.10, the coefficient is significant, indicating that the variable affects the dependent variable. Interpreting the model, it was found a positive and significant effect of increasing in the number of employees.

Variance inflation factor

Next, we need to check our model for multicollinearity. To do this, we will use the variance inflation factor metric which measures the correlation and strength of correlation between the explanatory variables in regression model. For this purpose we performed VIF test, which clearly showed that there is no multicollinearity between the variables, because the mean vif is 2.68, which is less than 10, that were used in the model for predicating the dependent variable of revenue change and the model is significant.

Variable	VIF	1/VIF
Sanctions_influence	1.477751	0.6767038
Sanctions_adaptation	2.026010	0.4935809
RD	1.890757	0.5288886
IT	1.872406	0.5340721
staff	1.977196	0.5057667
salary	1.357956	0.7364007
Learning	1.430472	0.6990699
Consulting	1.678521	0.5957627
Exporter_to2022	7.167701	0.1395147
Export_EU	4.677309	0.2137981
Export_now	4.641226	0.2154603
Export_reor	3.134472	0.3190330
Import_before	6.362939	0.1571601
Import_now	5.972653	0.1674298
Marketing	1.684634	0.5936009
Reorientation	1.304109	0.7668070
gov_finance	2.169811	0.4608696
gov_non_finance	1.235157	0.8096139
size	1.555961	0.6426894
Industry_Services	1.323809	0.7553958
High_educ_manager	1.291083	0.7745438

Figure 1: VIF coefficients. Source: Authors' calculations.

Specification link test

Next, a log likelihood test was run, the results of which showed that the simplified model describes the results no worse than the more complete one. According to the results of the simplified model, three variables are significant: staff, consulting and government finance.

#Df	LogLik	Df	Chisq	Pr(>Chisq)			
11	-83.26						
3	-105.20	-8	43.871	6.017e-07	***		
Variable	Value	Std. Error	t value	p-value	CI 2.5%	CI 97.5%	
RD	0.4419837	0.3711751	1.190769	0.23	-0.28121597	1.1828278	
staff	1.4680655	0.3379951	4.343452	0.00	0.83228549	2.1662010	
Consulting	0.9292089	0.5597206	1.660130	0.10	-0.14671069	2.0633715	
Export_reor	-1.3368556	0.9473374	-1.411172	0.16	-3.21924406	0.5362654	
Import_before	0.7813634	0.5412578	1.443607	0.15	-0.26365447	1.8720749	
Marketing	0.4199495	0.3543269	1.185204	0.24	-0.26653920	1.1290261	
gov_finance	1.0322045	0.5246510	1.967412	0.05	0.01743159	2.0857599	
Industry_Services	-0.4212447	0.4439440	-0.948869	0.34	-1.30225954	0.4456510	
1 2	3.4208616	1.1797831	2.899568	0.00	-0.28121597	1.1828278	
2 3	3.8198827	1.2016348	3.178905	0.00	0.83228549	2.1662010	
3 4	7.1369835	1.3997697	5.098684	0.00	-0.14671069	2.0633715	

Figure 2: Log-Likelihood Test of the Simplified Model. Source: Authors' calculations.

There is still no multicollinearity between the variables, because the mean vif is less than 10, that were used in the model for predicating the dependent variable of revenue change and the model is significant.

Variable	VIF	1/VIF
RD	1.237296	0.8082138
staff	1.262038	0.7923689
Consulting	1.300195	0.7691154
Export_reor	1.327679	0.7531942
Import_before	1.162336	0.8603365
Marketing	1.155926	0.8651073
gov_finance	1.481319	0.6750741
Industry_Services	1.088975	0.9182947

Figure 3: VIF Coefficients for the Simplified Model. Source: Authors' calculations.

Odds ratio

Since we have logical regression, we interpret the odds ratio rather than the coefficients. This indicator estimates the relationship between the predictor variable and the response variable.

Variable	Value	Std. Error	t value	p-value	CI 2.5%	CI 97.5%
RD	1.56	1.45	3.29	0.00	-0.28121597	1.1828278
staff	4.34	1.40	76.97	0.00	0.83228549	2.1662010
Consulting	2.53	1.75	5.26	0.00	-0.14671069	2.0633715
Export_reor	0.26	2.58	0.24	0.81	-3.21924406	0.5362654
Import_before	2.18	1.72	4.24	0.00	-0.26365447	1.8720749
Marketing	1.52	1.43	3.27	0.00	-0.26653920	1.1290261
gov_finance	2.81	1.69	7.15	0.00	0.01743159	2.0857599
Industry_Services	0.66	1.56	0.39	0.70	-1.30225954	0.4456510

Figure 4: Odds Ratios for the Simplified Model. Source: Authors' Calculations.

After logical regression, significant variables were identified that are interpretable:

- An increase in the number of employees leads to a 4.34 times higher chance of increasing revenue.
- Companies that used consulting services are 2.53 times more likely to increase revenue than companies without consulting services.
- Companies with government finance are 2.81 times more likely to increase revenue than companies without government finance.

marginal effect shows not only the probability of an increase or decrease in revenue, but also the extent to which revenue will change. The marginal effect will demonstrate how each factor of interest depends on the predictive variables.

factor	AME	SE	z	p	lower	upper
Consulting	-0.0794	0.0668	-1.1895	0.2342	-0.2102	0.0514
gov_finance	-0.0882	0.0624	-1.4130	0.1577	-0.2106	0.0341
staff	-0.1255	0.0585	-2.1459	0.0319	-0.2400	-0.0109

Figure 5: Marginal Effects. Source: Authors' Calculations.

Marginal effects

The final step of the statistical analysis and the model is the interpretation of the marginal effect. The

Consulting and government finance: For these variables, the marginal effect is insignificant.
Staff:

factor	staff	AME	SE	z	p	lower	upper
staff 1.0000	-0.2930	0.0992	-2.9530	0.0031	-0.4875	-0.0985	
staff 2.0000	-0.1512	0.1051	-1.4379	0.1505	-0.3572	0.0549	
staff 3.0000	-0.0480	0.0503	-0.9528	0.3407	-0.1466	0.0507	

Figure 6. Marginal effects of the "Staff" variable. Source: Authors' calculations.

Reducing the number of employees reduces the probability of a revenue increase by 29.3%.

The results of the second stage of the study, conducted in 2025, showed that the following were

effective adaptation strategies that increased revenue in 2024:

- Increasing the Number of Employees
- Using Consulting Services

- □ Using Government Support Measures

4 CONCLUSION

The results of the study showed that in 2023, companies increased their revenue through innovation and increased staffing. It can be assumed that digitalization was one of the innovation elements that contributed to the successful adaptation of Russian companies to the changing external environment. In 2024, companies increased their revenue through the use of consulting services and government support. It can be concluded that in the long term, we will be able to see the impact of factors such as innovation. Further research could focus on examining which types of innovation influenced revenue increases for Russian small and medium-sized businesses and the role digitalization played among these innovations.

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