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Impact of gender equality at workplace on financial performance of Russian firms

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Abstract

In recent years, the developed states have been promoting and implementing the measures to achieve social and gender equality. One of the important aspects of this problem is economic. In particular, there has been a raise of interest on the issue of gender equality at the workplace, the beneficial opportunities of it and the methods of how it can be achieved. This have provoked controversial opinions and discussions on the question whether gender equality at workplace can provide economic advantages, and led to different research initiatives on the topic. In order to contribute to the initiatives, this study investigates impact of amount of female employees in Russian firms on their financial performance, expressed in revenue and stock price. To accomplish the task, the regression models on panel data are used. The findings of the study show that measures towards gender equality at workplace of Russian firms are not linked with more effective financial performance. The reasons for this outcome may be underdevelopment of corporate social responsibility in Russia, the small role of women in the companies from sectors in the sample and the heavy dependence of stock prices of Russian firms on other factors such as revenue, debt and political situation. The results highlight the need for more broad and detailed research on the topic specifically for the Russian market, as the current study was limited by the availability of data.

Introduction

Background

Due to the increasingly frequent corporate failures, nowadays investors are paying more and more attention to the corporate culture of the company and to the effectiveness of its management, for which the board of directors is responsible. At the same time, companies have begun to search for various ways to improve the quality of management. One of the important aspects of human resource management is promotion of gender equality on all positions within the company.

The gender inequality has been an issue for the society for generations. The part of this social issue is the inequality at the workplace, which has existed since women joined men at the labor market. For many years, only men were engaged in labor, while women were exclusively housewives. However, with the rise of feminism, a lot has changed. Due to the efforts of female rights movements and governments, significant progress towards making male and female employees equal in rights and opportunities has been achieved over the years. Women, fortunately, have been able to achieve gender equality in many areas, including the opportunity to work in the same jobs as men. Female rights were approved at the beginning of the previous century, and it seems that women in their workplaces are equal to men; in fact, this is not correct. However, full gender equality remains a goal to reach for every state of the world, and the same applies for equality at the workplace. There are many problems, ranging from a small number of women among the employees in many firms, especially in senior positions, to the wage gap between males and females, which sometimes can reach significant amounts, which is certainly a discrimination.

The issue is complex and has many dimensions, including ethical, social and economic. Each dimension has been widely discussed, with economic one being no exception. One of the questions related to it is about possible consequences of all kinds the organizations may face by promoting gender equality at their workplace. Based on the assumption that gender equality is generally good, it is discussed which possible economic advantages, opportunities and benefits can be obtained by organizations that promote equality among their employees. As a result, some discussions are focused on the question whether equality at firm's workplace is positively linked with increased financial performance of that firm.

Problem statement

The study on the relationship between gender equality and financial performance is relevant due to promotion of equality and diversity being currently a social trend in both developed and developing economies around the world; therefore, it would be useful to learn about advantages, benefits and opportunities related specifically to this trend. In addition, the firms always search for ways to improve their financial performance and to gain positive recognition of their brands in the society – in this case, promotion of equality may be the right instrument for improvement. Increase in the value of the company, that is, its market capitalization, is one of the main indicators of the quality of the work of top management, since the main purpose of investing funds by investors is to gain profit from the growth of the value of the company's shares on the stock market. Accordingly, if gender equality at all levels of the company is positively recognized and leads to an increase in the share price, then investors will be more willing to invest more money in companies that adhere to gender equality.

In this study, we propose two research questions. The first question is whether gender equality at the workplace is positively related to the financial performance of the firm in terms of revenue. The second question is whether gender equality at the workplace is positively related to the stock market performance of the firm in terms of stock market prices.

Professional significance

From managerial perspective, the study may be useful in terms of practical recommendations on how to implement workplace equality measures in an organization if they have positive impact on financial performance. There are different other studies investigating the possible benefits of employee equality for business, however, they also differ in the results and their interpretations – some find positive relationship between variables of interest while others state that there is no such relationship or it is even negative. Additionally, there are very few studies investigating the problem of gender inequality at workplace specifically at Russian market. Being a state where the market economy was established relatively recently, Russia still has to catch up in terms of technologies, economy development and social trends after already developed Western countries. If gender equality may provide benefits for organizations, it can be useful for Russian business as well and for the state. These are the serious reasons why this important and relevant topic requires more research, analysis and discussion.

Delimitations of the study

The research is conducted for publicly traded large Russian companies due to the more availability of data for them than for foreign ones and to the lack of similar studies related to Russian market. In addition, the sample size is chosen in terms of time limits for the research and to not to be overcomplicated for analyzing.

Literature review

The problem of gender inequality in labor has been a topic for academic discussions for many decades. Because the topic is related to human behavior and relationships, it has been studied from different points of view and scientific attitudes, including psychology, sociology, economics and human resource management. Gender inequality related to functioning of a firm and impact on its performance is specifically relevant for researchers. They want to know what are the disadvantages arising from gender inequality of a company's employees, how to solve them and how to prevent them. Alternatively, economic and any other advantages of gender equality and its impact on a firm's performance are no less important, since its positive effect possibly will push companies to eliminate any bias occurring towards women at the recruiting stage and create comfortable and motivating conditions for them at workplace.

Negative performance effects of gender biases. Despite many years of social progress, various forms of discrimination towards females still exist at the workplaces of organizations. These forms include wide pay gap, unequal treatment from management and colleagues, and worse career opportunities compared to men (Zhu, et. al., 2022). Many of these problems are deeply rooted to gender stereotypes, which provide ground for gender biases in decision-making. Gender inequality starts to affect the performance of organizations even before the employee is hired. The experiments have shown that there are biases among human resource managers because of which they prefer hiring male applicants to female applicants with equal characteristics (Chang & Milkman, 2020). These biases towards male applicants affect both male and female human resource managers. They arise from gender stereotypes in society, when people often tend to view females as weak and vulnerable and therefore associate them with family and household, while males are seen as strong and resilient, consequently, males are associated with hard work and career growth because they are capable of them. Therefore, because of gender biases and prejudices, organizations can easily fail to identify and hire the best employees, which, as a result, may lead to lower workforce performance

than it could be. However, successfully hiring the right employee does not guarantee that all problems arising from stereotypical thinking are avoided. Instead, there can be even more new relationship challenges for both organization and new employees after hiring process. If a female employee is hired, she still may be treated not as good, as if she was male, obviously, such treatment may result in problems no less serious for the firm than for the worker (Chang & Milkman, 2020). These problems include psychological ones for employees. Gender inequality among workforce is interrelated with low self-esteem, low morale and ineffective productivity (Shannon et al., 2019). For example, gender and behavior stereotypes often affect credit allocation much – males receive more rewards and respect for group performance since they are considered to have better managerial and leadership capabilities. On the contrary, women are often punished for violation of gender stereotypes at the workplace; these punishments can seriously decrease their possibilities for career growth and work involvement. Of course, all these unfair measures reduce satisfaction of women from work. As a result, the managerial decisions affected by gender biases can have negative impacts on the interests and plans of a whole organization, its long-term effectiveness, competitiveness and performance (Chang & Milkman, 2020). For many years, various studies on gender equality and diversity in terms of economic impact have been conducted in various countries around the world. The gathered data clearly shows how reducing gender differences at various economic levels (individual households, farms or firms) can improve overall organizational performance in specific conditions, with robust results in some areas, and less clear evidence in others (Klasen, 2018).

Positive impact of equality. Gender equality in the workplace is a part of measures towards fair diversity among workforce. At the same time, employee diversity is linked to corporate social responsibility (CSR), a business self-regulation practice aimed at contribution to societal goals by supporting ethically oriented practices. Diversity in the workplace means that the organization employs individuals with different personal characteristics such as age, gender, race, age, education and many other attributes. Therefore, hiring females as well as males is one of the goals of employee diversity policy. It is done not only because the organization wants to act fairly and gain positive reputation but also because this policy has other different useful opportunities. While gender inequality reduces the effectiveness of an organization and can be a source of conflicts among workforce and between employees and management, equality can provide sufficient benefits. If employees of both genders feel that they are treated equally well and there is justice in their company, they can show higher engagement in performance (Mohamad, 2019). It has been found

that a diverse workforce has a positive impact on corporate philanthropy, and, as a result, progressive and fair relationships between organizations and their employees positively affect financial outcomes of these organizations. It means that managerial measures towards positive relationships with employees using the principles of diversity and equality improve the financial performance of the firms (Câmara & Petrenko, 2021). The research on US commercial banks shows that their socially responsible behavior generously rewards them because financial performance indicators are positively and significantly linked to CSR rates (Cornett et al., 2016). In addition, the equality expressed as presence of women on managerial positions and in corporate boards of directors increases financial performance of the companies and can be used as a tool to improve corporate brand image (Cavero-Rubio et al., 2019). It has been also found that women directorship has a positive effect on returns on assets and returns on equity (Bennouri et. al., 2018). Studies prove that those organizations that ensure equality and diversity at their workplaces benefit from increased productivity, better decision-making and more employee satisfaction (Shannon et al., 2019). Moreover, the study that has been conducted in Australia provides evidence that organizations, which adopt many work-family programs, benefit from their implementation. The advantages are expressed by the impact of adoption of such programs, because with them non-management gender diversity has a more positive effect on productivity. On the other hand, in organizations which have few such programs, the gender diversity across managers results in less effective financial performance (Ali et al., 2015). The economic growth of developed and developing countries and ongoing globalization in the world led to an ever increased demand for labor, which was largely closed by women, hence it can be concluded that the feminization of labor is necessary not only from a moral and ethical points of view, but also from an economic point of view. Gender diversity and equality are also the important part of the ESG's corporate goals. Companies that have diversity and gender equality policies create a favorable environment for cooperation between employees, which leads to increased productivity and efficiency, and, consequently, it contributes to supporting a comfortable and motivating climate that inclines employees to innovation, which, in turn, has a positive impact on business activity and its outcomes. Women are considered more socially responsible in corporations, their presence on corporate boards has a positive effect on corporate social responsibility dimensions related to such stakeholders like suppliers, community, partners and environment in general (Francouer et. al., 2019). Firms with diverse, heterogeneous leadership teams are more likely than other firms to successfully pursue environmental, social and governance strategies (Glass, et al., 2016). In the organizational management structures, which support cross-

functional teamwork, diverse top management teams significantly increase financial performance of their organizations (Opstrup & Villadsen, 2015). Gender diversity policies are especially effective in emerging markets as these policies appear to be financially beneficial and match the goals of sustainable development of economy and environment (Ionascu et. al., 2018).

Female representation on the board of directors. There has been a discussion whether there is a link between the representation of women on the boards of directors and financial performance of the firm. A research of stock performance of 577 Australian companies has found no clear evidence that gender diversity on board is associated with better financial performance (Chapple & Humphrey, 2014). Another research group has found no direct positive impact of female representation on the board of directors on value of the European firms. However, it has found indirect positive impact because female directors have an effect on financial performance and social compliance, which increase the value of the company (Isidro & Sobral, 2015). The effect of female representation on value of the company is explained by specific skills, competencies and expertise that female directors have and that often are not presented on male only boards. That is, the contribution of female directors can benefit board performance of the company (Kim & Starks, 2016). These unique skills and experience of women affect their work style, making them more process-oriented and consumer-oriented (Carrasco-Santos et al., 2020). They improve creativity and productivity across the organization and companies run by women tend to show better stock price performance. The presence of women on the board is viewed by stakeholders as a good sign while the absence of such representation is often perceived as a flaw (Carrasco-Santos et al., 2020). On the contrary, in some cases, such disapproval of lack of gender diversity by society may lead to a problem of tokenism. Such situations happen when minorities (including females) are hired for no other reason except for only to pretend that the company fulfills the requirements of the society, while in fact it does not really care about diversity and equality at all (Low et al., 2015).

The results of different research studies may significantly vary one from another because of many factors including methodology and sample. This is true for studies about economic impact of measures towards gender equality in organizations as well. A study of the sample of Asian firms from Hong Kong, South Korea, Malaysia and Singapore indicates that increase of amount of women on board strongly boosts the financial performance measured in return on equity (Low et al., 2015). A different group of researchers (Badea et. al., 2020) in their paper suggests that the issue of gender equality is important not only for employees themselves. It also plays a significant role for investors

and stakeholders, as they are increasingly adapting to the needs of society, and are beginning to pay attention not only to profitability and to risk indicators, but also to gender equality within the company. In their work, the authors also refer to the study conducted by International Monetary Fund, which states that a high level of gender diversification in organizations is often associated with better financial performance of them. The same study by IMF also states that when a man in a senior managerial position is replaced by a woman at the same level of management, it leads to an increase in the return on the company's assets on few basis points. The group of researchers compared the indicators of three indices, which include companies that have committed to make efforts to achieve gender equality (for example, Bloomberg Gender-Equality Index), with general market indices. In total, the authors used 11 indices, three of which reflected the performance of stocks of companies which adopted measures towards gender equality, and eight indices reflected the entire market. Observations were taken for 834 days. For the analysis of the data they collected, the authors used econometric and statistical methods. After conducting the analysis, the authors came to the conclusion that the returns on the indices they used turned out to be very similar, and this result indicated that despite other studies, most investors still do not expect better financial performance from companies that adhere to gender equality within their organizational structure. The research on the situation with hospitality and tourism in China also found negative effect of diversity of executive management on performance and lack of significant effect of diverse boards on financial performance of Chinese hotel firms (Chen et. al., 2021). Still, another recent study of environmental, social and governance measures for gender diversity and equality in South Korean firms compared the financial performance of companies, which operated without investments from The Women Fund, with the same performance of companies, which had these investments. The findings indicated that Korean companies that showed better efforts in implementation of equality and diversity measures and because of that were supported by the Fund's investments achieved higher return on assets and return on equity than the firms which operated without investment support (Cho et. al., 2020).

Another study shows that the CSR fully mediates the link between female directors on board and firm's financial performance (Galbreath, 2016). In case of environmental and corporate social responsibility performance, there is solid evidence that the representation of females on the board of directors is positively related to CSR and environmental performance of the company (Lopatta et al., 2020). This highlights the fact that relevant legislation has positive effects and can be beneficially and effectively implemented in states where the diverse representation is limited due to some

reasons. Nuria Reguera-Alvarado, Pilar de Fuentes and Joaquina Laffarga (2015) in their research article, using the example of Spain, consider the positive impact of the representation of women on the corporate board of directors on financial performance. Spanish firms are taken for the sample of the study, since historically women in this country have practically not taken any important part in activity on labor market. The authors say that the law creating quotas for seats on the board of directors for women is a working, effective and simple way to diversify gender representation in companies. In the study, the authors found that the introduction of quotas allowed to significantly increase the number of women on the board of directors - almost twice, by 98%. In addition, an important conclusion is that the authors in their study were able to find a positive relationship between the number of women on the board of directors and the financial performance of the company. Gender diversity in the board of directors, according to the authors, allows solving many business and organizational problems in more innovative and therefore effective ways, as diversity brings many new useful views, approaches and ideas to the board of directors.

However, the impact of corporate social responsibility and gender equality on the financial gain of firms depends a lot, on how well the stakeholders are aware about CSR initiatives being implemented by companies. If they do not get enough information about such activities, their awareness is low and it acts as a barrier which prevents the firm from capturing the full value of benefits that may be gained from their CSR and equality efforts (Rhou et al., 2016).

Many people still have a biased attitude toward management skills of females on managerial positions in firms. It is mostly because of such prejudices that the proportion of women who are managers and directors in companies remains low, which is why the obligatory introduction of workforce and board diversity quotas at the national or even international level is a necessary measure to achieve better economic outcomes (Valls Martínez & Cruz Rambaud, 2019).

Equality and innovativeness. Jenny María Ruiz-Jiménez and María del Mar Fuentes-Fuentes (2015) consider the existence of direct impact of managerial abilities on the effectiveness of innovations in the company; in addition, they consider the role of gender diversity in senior management in this relationship. Authors used a sample of 205 Spanish SMEs from the technology sector and a hierarchical regression analysis to test their hypotheses. Results of the study confirmed that managerial abilities have a positive correlation with the effectiveness of technological innovations, but an even more important discovery was made that gender diversification has a positive impact on the relationship between the presence of managerial abilities and appearance of

innovative ideas in the organizations. Thus, it turns out that gender diversity and equality in top management lead to more effective innovations within technology companies.

Women on corporate boards and fraud levels. Additionally, there are studies showing that presence of women on corporate boards is associated with a reduced level of corporate fraud and higher ability of fraud detection such as tax evasion, financial statement fraud and other (Wang et al., (2021), Cumming et al., (2015)). There is sufficient evidence that gender-diverse boards help to make less mistakes in financial reports and tend to commit corporate and financial fraud less often (Wahid, 2019).

Employee performance and firm's performance. Our goal is to find out whether gender equality can positively influence financial performance of the company. We believe that a deeper study of this issue will help determine the exact impact of gender equality on the company's results. It will also be able to help senior managers understand what actions and changes need to be taken in relation to gender diversification within the company. The financial performance of a company primarily depends on the performance of its employees, whose efforts are capable of leading their organization to prosperity and higher achievements. It is often necessary to take into account the fact that gender diversity in a company can affect financial success due to the different approaches of men and women to solving some specific business problems (Gutiérrez-Fernández & Fernández-Torres, 2020). The volumes of gross domestic product of states are obviously increasing due to their economic development, and there is no possibility for successful and effective development without the growth of private business, which acts as the core and main driver of economy. In our study, we want to find out whether gender equality among workforce is able to positively influence the financial performance of public companies operating in Russia.

Methodology

Data collection and description. There are many various aspects of gender equality, especially, at the workplace, and various ways and approaches are used to measure it. Our research questions are designed to investigate the relationship between gender equality of employees and financial performance of the firms. Therefore, we propose the following hypotheses:

Hypothesis 1: the more positive the deviation for the amount of women in a company from average amount in the sector, the more effective the financial performance of that company in terms of revenue.

In this hypothesis, we suppose that companies that have larger amount of female employees than other companies in their sector show more effective performance in terms of revenue because women in such companies are treated better and feel more motivated, putting more efforts into their work and decreasing the risks of relationship conflicts between employees. Moreover, if we suppose that, we can suppose that the lower amount of female employees in a company compared to average amount in the economy sectors leads to worse financial performance in terms of revenue.

Hypothesis 2: the more positive the deviation for the amount of women in a company from average amount in the sector, the more effective the financial performance of that company in terms of stock price.

Here we suppose the same relationship for the stock price of the companies. Positive deviation for the amount of females in a company from average amount in the sector leads to higher stock prices of that company. Consequently, negative deviation leads to lower stock prices. This relationship may be explained in the following manner: in companies, where the amount of female employees is higher than on average in sector, women are more motivated and perform better. Firstly, better performance of employees results in better performance of the company, which is represented in the firm's statements. This data sends a positive message to stockholders and, consequently, the stock price of the company increases. Secondly, the fact that company has more females than its competitors also acts as a positive message for stockholders, showing that the company cares about its workers and gender equality and diversity among them, being socially responsible.

To test our hypotheses, we had to choose proper and consistent variables of interest. The independent variable of interest is the deviation for the amount of female employees in a company from the average amount in the sector of economy. We decided to express the deviation as an amount of women in a company subtracted from the average amount of women in firms of the sector. This is made because the amount of female employees in various sectors of economy may differ. For example, there may be less females in mining industry than in IT sector because mining is dangerous and requires physical strength. The amount of females in companies and sectors we

express in percent of total employees, but the deviations from these percentage amounts we express in numeric values.

For research question 1, the dependent variable of interest is the annual amount of revenue in rubles for the company. For research question 2, the dependent variable of interest is the annual average stock price of the company in rubles.

Of course, aside from dependent and independent variables, we also need some proper control variables to ensure that we have taken into account other present factors, which can affect the relationship between the variables of interest. Here we decided to take three control variables: sector of industry to which the company belongs, the amount of female top managers in the company and the amount of female directors on the board. Industry sector acts as a control variable because the proportion of female workers in companies from different industries can vary. The amounts of female top managers and directors are used as control variables because the presence of women on these corporate positions can have direct impact on firm's financial performance due to the fact that the females are involved in corporate decision-making and they have specific approaches to it, different from these that men have.

The sample for our research consists of publicly traded Russian companies operating on Russian market. We are interested in investigating the situation with employee diversity and equality in Russian firms. Moreover, we decided not to include foreign companies because of the current political uncertainty and possible difficulties of collecting data about foreign firms, many of which already have left the market of Russia or may leave in the future during the research, making the current study about them irrelevant. The Russian public companies that are chosen belong to five different sectors of economy to make the research study more broad and to check if there are differences in relationships between variables in different spheres of Russian economy.

The sample size was chosen taking into the account the limitations of the research in terms of time, resources, research difficulty and convenience, therefore, we have set a sample size of 22 companies. We decided to use as data sources annual reports of the companies and any other official, reliable and relevant sources where the appropriate data can be obtained by open access. We were able to find the data about the share of female employees in total workforce, in executive management and on the board, in annual sustainability reports of the selected companies. The data about revenue can be easily taken from their annual financial reports. Moreover, the data about stock

price can be found on the various official web resources about stock markets, which contain information about publicly traded firms.

We have collected data for 22 companies from five different sectors – retail, mining, information technologies, energy and banking sector. We compiled a list of Russian companies by their market capitalization, then, going from top to bottom, we selected companies from different sectors. Thus, many of the companies selected for the study are the largest companies in their sectors in Russia. The exceptions are companies that, as it turned out, do not publish information about the number of employees in the context of gender. We also collected data on stock prices for all 22 companies.

The time period for the observations in our data set is three years – from 2018 to 2020. The data is observed annually. We expected to use a more broad time period, for example, five or ten years, but it turned out to be currently impossible, since many Russian companies started publishing sustainability reports with gender-related data about their employees only several years ago. We considered this as a limitation for our study, but we expect more researchable data about sustainable development, corporate social responsibility, gender diversity and gender equality among workforce to be published by public Russian firms during the following years.

Procedures and theories. To check the relationships between variables of interest, we need to compare them across time. Therefore, we need to use panel data. To work with it, we decided to use panel regression models, and the software that is appropriate for us in this case is Stata 17. To start with, we need to check our data set carefully for possible missing values, mistakes and outliers and delete all of them from the set if found. Then we should set up panel data and create a set of reliable control variables. The following work is about creating different econometric models of regression and comparing them to find out the measure of relationship between dependent and independent variables of interest, precisely analyze it, produce results, and, finally, explain and discuss them.

Achievement of literally any research goal would be impossible without a matching theoretical basis that is deep enough. Gender diversity in organizations and their performance are closely linked to human behavior and motivation; therefore, the theories of motivation are required.

Firstly, the expectancy theory by Canadian psychologist Victor Vroom, firstly presented in his work “Work and motivation” (1964), is applicable to our research study. This theory by Vroom proposes a relationship between employee’s performance and the organizational rewards for the employee or

work outcomes. The more desirable the outcome for the employee, the more strongly the employee is motivated and therefore his personal efforts put into the work are larger. In the case of gender inequality, if a female employee puts equal or more effort into work performance than male ones, but gets fewer rewards from the organization (less salary or respect from managers or colleagues, for example) than male employees, it would reduce female employee's motivation, engagement and general wish to work. Organizational rewards include salary, respect, financial and non-financial bonuses and other reward types. As a result, gender equality among workers acts as an instrument to increase their motivation.

Secondly, theory Y by famous American psychologist Douglas McGregor (this theory was described for the first time in his book "The Human Side of Enterprise" in 1960) provides another necessary explanation why motivation matters for the organization, its performance and employees. It assumes that employees are generally ambitious and creative, they can maintain self-control, be responsible, patient and enjoy working. As a result, the satisfaction from the performance results acts as a strong motivational factor for them. One of the main tasks of a manager in an organization is to provide its employees with comfortable work conditions, guidance and feedback, so they could have no barriers for maximizing their own work efficiency and satisfaction from the process of this work, contributing as much as they can to the goals of their firm. These statements are applicable as well to gender diversity and equality in terms of motivation. In this case, comfortable work conditions, fair feedback, broad, clear and accessible career opportunities and good relationships with managers and colleagues act as a motivational factor for both male and female employees. However, as in many companies the majority of employees and management consists of males, women often do not get these properly fair conditions to be motivated enough. Instead, they face different obstacles, challenges and problems. For example, pay gap between male and female employees, limited career opportunities, unequal treatment from management and male-dominated organizational environment certainly cannot be comfortable work conditions for female employees; these are the adverse barriers, which undoubtedly should be eliminated by management. By ensuring the absence of these barriers, by granting female employees the same workplace conditions and treatment as for males, the organization can significantly improve their motivation and, consequently, increase its own overall performance in terms of finances and productivity.

Therefore, we use two different theories of motivation to explain how gender equality at workplace may affect financial performance of the organizations. First theory states that the employees are

motivated by their work outcomes, and the second states that the employees generally enjoy work itself as a process, so the managers definitely should ensure that there are no harmful barriers that prevent employees from experiencing full satisfaction from the process of work.

With these theories of workforce motivation by Vroom and McGregor, we suppose that measures towards gender equality at workplace have a positive impact on performance and efficiency of the companies in which they are implemented. Despite that, there may exist other and more significant factors affecting organizational performance.

Results

We have gathered data for 22 large publicly traded Russian companies and analyzed it using regression models. The selected companies were grouped by sectors of industry (5 sectors total). We had a total of 30 variables, including average stock price, annual net income, and share of female and male employees at top management and board of directors measured in percent.

The first part of our regression analysis was focused on impact of total amount of female employees on firm's net income.

Before we started our regression analysis, we had to choose proper control variables that may affect revenue and stock price. Such control variables in our research study are the percentages of female employees at board and top management of the company, and economy sector to which the selected company belongs.

Firstly, we performed a linear regression with control variables and company clusters (table 1). In addition, here we use a dummy variable called “data”, which is added to compare results in years 2019 and 2020.

Table 1

reg ln_net_income_deviation \$cv i.data, cluster (company_n) r

Linear regression

	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
ln_net_income							
—							
deviation	.044	.018	2.46	.023	.007	.081	**
female_board	-.014	.041	-0.33	.744	-.098	.071	
female_top	-.025	.019	-1.31	.206	-.065	.015	
industry_enc	-.252	.29	-0.87	.395	-.855	.351	
2018b	0	.	.	.	.	.
2019	-.044	.199	-0.22	.829	-.458	.371	
2020	-.054	.219	-0.25	.808	-.509	.401	
Constant	12.428	1.344	9.25	0	9.634	15.222	***
Mean dependent var		10.569	SD dependent var			1.583	
R-squared		0.203	Number of obs			66	
F-test		2.439	Prob > F			0.060	
Akaike crit. (AIC)		245.901	Bayesian crit. (BIC)			261.229	

*** $p < .01$, ** $p < .05$, * $p < .1$

The p-values here are mostly greater than 0.05 at 95% level of confidence, which undoubtedly means that the impact of total amount of female employees on net income of firms is not statistically significant.

After that, we performed a regression based on the model of random effects. This regression included control variables, company clusters and data dummy (table 2).

Table 2

eststo re2: xtreg ln_net_income_deviation \$cv, re

Regression results

	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
ln_net_income							
—							
deviation	.044	.024	1.84	.065	-.003	.091	*
female_board	.003	.019	0.16	.87	-.035	.041	
female_top	-.029	.015	-1.92	.055	-.058	.001	*
industry_enc	-.193	.25	-0.78	.438	-.683	.296	
Constant	12.085	.965	12.53	0	10.194	13.976	***
<hr/>							
Mean dependent var		10.569	SD dependent var			1.583	
Overall r-squared		0.194	Number of obs			66	
Chi-square		7.334	Prob > chi2			0.119	
R-squared within		0.054	R-squared between			0.215	

*** $p < .01$, ** $p < .05$, * $p < .1$

In this case, the p-values are mostly greater than 0.05 at 95% level of confidence, with p-values for female_total and female_top being the only exceptions. Therefore, the impact of amount of women on income of the company here is statistically insignificant as well.

We performed a test for inclusion of data dummy variable, and found out that it is also statistically insignificant. Breusch and Pagan test for random effects showed p-value much less than 0.05 at 95% level of confidence, so we needed to choose between two different models: random effects and fixed effects.

We performed another regression. This one is based on the model with fixed effects. The regression here includes the set of control variables of interest and data dummy (table 3).

Table 3

eststo fe2: xtreg ln_net_income_deviation \$cv, fe

Regression results

	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
ln_net_income							
—							
deviation	.048	.049	1.00	.325	-.05	.146	
female_board	.009	.023	0.39	.697	-.038	.056	
female_top	-.032	.024	-1.32	.193	-.082	.017	
o	0	.	.	.	.	.
Constant	11.499	.945	12.17	0	9.591	13.407	***
<hr/>							
Mean dependent var		10.569	SD dependent var			1.583	
R-squared		0.056	Number of obs			66	
F-test		0.804	Prob > F			0.711	
Akaike crit. (AIC)		114.194	Bayesian crit. (BIC)			122.953	

*** $p < .01$, ** $p < .05$, * $p < .1$

All presented p-values here are larger than 0.05 at 95% level of confidence. Such large values indicate the statistical insignificance of impact of amount of females on company's income again. In the following test for dummy inclusion in fixed effects and Hausman test (table 4) for choice of fixed effects the results were also greater than 0.05, showing that we do not need data dummy and need to use the model which is based on fixed effects instead of the model which is based on fixed effects.

Table 4

hausman fe2 re2

Hausman (1978) specification test

	Coef.
Chi-square test value	.387
P-value	.943

The second part of the regression analysis was aimed at the same operations, but this time we studied the impact of total amount of female employees on firm's average stock price in each year. Table 5 shows the simple linear regression, table 6 shows the regression based on the model of random effects and table 6 shows the regression based on the fixed effects model (all these three represented models include control variables and data dummy).

Table 5

reg ln_stock_price deviation \$cv i.data, cluster (company_n) r
Linear regression

ln_stock_price	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
deviation	-.072	.059	-1.22	.238	-.194	.051	
female_board	.117	.083	1.42	.169	-.054	.289	
female_top	.007	.034	0.20	.844	-.064	.078	
industry_enc	1.888	.686	2.75	.012	.461	3.314	**
2018b	0	.	.	.	.	.
2019	.173	.151	1.14	.266	-.141	.486	
2020	.194	.235	0.82	.42	-.296	.683	
Constant	-3.397	2.925	-1.16	.258	-9.48	2.685	
Mean dependent var		4.707	SD dependent var		3.811		
R-squared		0.420	Number of obs		66		
F-test		2.606	Prob > F		0.048		
Akaike crit. (AIC)		340.987	Bayesian crit. (BIC)		356.315		

*** $p < .01$, ** $p < .05$, * $p < .1$

Table 6

eststo re30: xtreg ln_stock_price deviation \$cv i.data, re
Regression results

ln_stock_price	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
deviation	-.003	.013	-0.22	.826	-.029	.023	
female_board	-.006	.007	-0.87	.382	-.019	.007	
female_top	-.004	.007	-0.54	.591	-.018	.01	
industry_enc	1.646	.532	3.09	.002	.604	2.689	***
2018b	0	.	.	.	.	.
2019	.093	.059	1.57	.116	-.023	.21	
2020	.344	.06	5.72	0	.226	.462	***
Constant	-.458	1.839	-0.25	.803	-4.062	3.146	
Mean dependent var		4.707	SD dependent var		3.811		
Overall r-squared		0.317	Number of obs		66		
Chi-square		44.856	Prob > chi2		0.000		
R-squared within		0.478	R-squared between		0.317		

*** $p < .01$, ** $p < .05$, * $p < .1$

Table 7

eststo fe30: xtreg ln_stock_price deviation \$cv i.data, fe
Regression results

ln_stock_price	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
deviation	0	.014	-0.00	.999	-.028	.028	
female_board	-.007	.007	-1.02	.316	-.021	.007	
female_top	-.005	.007	-0.67	.51	-.02	.01	
o	0	.	.	.	.	.
2018b	0	.	.	.	.	.
2019	.092	.059	1.56	.126	-.027	.212	
2020	.347	.06	5.79	0	.226	.468	***
Constant	4.826	.294	16.44	0	4.232	5.42	***
Mean dependent var		4.707	SD dependent var		3.811		
R-squared		0.479	Number of obs		66		
F-test		7.178	Prob > F		0.000		
Akaike crit. (AIC)		-54.068	Bayesian crit. (BIC)		-40.930		

*** $p < .01$, ** $p < .05$, * $p < .1$

In all these three models, the p-values are much larger than 0.05 at 95% level of confidence, representing the statistical insignificance of impact of amount of females employees in the company on its average stock price. However, the p-values in tests for inclusion of data dummy in regressions based on both random and fixed effects models show the statistical significance of data dummy, The Hausman test (table 8) tells us that we need to choose fixed effects model instead of random effects model for use in regression analysis of panel data.

Table 8

hausman fe30 re30**Hausman (1978) specification test**

	Coef.
Chi-square test value	-.03
P-value	1

We performed regressions for two relationships: between total amount of female employees and firm's annual net income and between total amount of female employees and average stock price of the companies. In both cases, the impact of amount of female employees surprisingly turned out to be statistically insignificant. However, we may use confidence level of 90%, add much more observations to the data set and control variables to the regressions to see if the results become significant.

Such regression analysis results lacking the signs of positive relationship can be explained by various reasons. Firstly, we can suggest that for many investors in Russia, gender equality and diversity within a company are not important indicators in evaluating the company and stock selection, so the Russian investors choose stocks in which they wish to put their funds despite the number of women in companies. It means that Russian stock prices are still mainly formed based on other parameters, such as successful efforts of managers in reducing the company's debt, revenues higher than expected, announcements of potentially beneficial partnerships or other types of firm's activity. When investing in Russian stocks, an investor carries much more risks than when investing in shares of American companies. The reasons for these risks are the geopolitical situation and the high level of corruption. The impact of geopolitical situation is partially expressed as a large number of sanctions that have been imposed on many Russian companies. These sanctions in many ways complicate and restrict the work of companies, complicate the conduct of operational activities, which in turn affects profits and the price of shares. Also, all this repels a large number of foreign investors who could invest a lot of capital in Russian companies, thereby raising the price for shares. It can be concluded that with high investment risks, investors are not inclined to pay attention to such things as the fight against inequality within the company. They are rather interested in such things as an increase in the exchange rate if the company they are interested in exports, an increase in lending to the population if it is a company from the banking sector, or the price of energy

carriers, if the company produces them. Thus, it can be concluded that issues related to ESG principles fall into the field of vision of investors if the company is in normal economic conditions and is not forced to constantly get out of various types of crisis. Secondly, many selected companies from our list form their profits by exporting their goods (mostly natural resources like oil, gas and metals) abroad, accordingly they receive payment in foreign currency, the most often in dollars. This fact means that their net profit largely depends on the dollar exchange rate, and not on any internal or external actions on the part of their employees, top managers or directors.

Conclusion

To sum up, gender equality is a relevant and important topic for researchers because the society is interested in possibilities and opportunities it may provide because of adoption. ESG principles become a very important criterion for investors when choosing a company. Investors are becoming more and more far-sighted; they are beginning to understand that companies should be responsible for the impact on the environment, as well as for social interaction. Achieving meaningful performance in these areas requires the input of all stakeholders, including management, employees, investors and customers. Gender equality is one of the most important parts of ESG. The policy aimed at ensuring gender equality and diversity influences the working atmosphere within the team, which generally affects the effectiveness of doing business and its innovativeness. Over the past few years, the public agenda has changed radically, and its main topics are more focused on ESG goals. Thus, it has become more urgent for the company to prove its commitment to combating gender inequality in the workplace. This is also reflected in the agenda of investors, who are increasingly adapting to the priorities of the communities and are no longer focused only on optimizing the risk/return ratio. That is the reason why employees, investors and regulators have become interested in how a listed company is coping with ESG's global goals. There have been different studies across countries, and the results show that the topic should be investigated even more because the studies provide different results. Our paper studies the effects of the share of female employees on the financial performance of Russian firms from different economy sectors in both revenue and stock price. We use panel data from official sources like annual reports on sustainable development and stock market archives. The data is analyzed in Stata 17 software using regression models. The theories of motivation state that the employees who are not discriminated and ignored by their management, but instead supported and provided with fair and comfortable working conditions, payment and treatment, tend to perform better, which results in an increase of overall performance of the organization. Consequently, we expected that gender equality among employees has a positive relationship with financial performance. The effect on stock price was expected to be less significant than the effect on revenue. However, the results showed the insignificance of amount of female employees on both net income and stock price. These findings were not surprising for us, because Russian society is still catching up in terms of current global trends. Investors in Russia still value other characteristics of the companies like revenue, debt to equity ratio more than their commitment to gender equality among their workforce. Moreover, many public Russian companies are involved in extraction of natural resources and selling them abroad as a way to generate income.

They receive payment in foreign currency and the nature of their activity does not allow for significant amounts of female employees and their contribution to the performance.

As for limitations, there may be lack of data for analysis expressed in a small time frame of only three years because we found out that many companies in Russia, including those in our sample, started to publish sustainability reports only a few years ago, which does not match our desired time frame of observations of 10 years. In addition, some companies may not publish information about their gender composition of their workforce at all. The problem is also worsened by the situation that the sustainability reports in Russia often do not have clear criteria and standards, which leads to the fact that all companies have different levels of information disclosure. It often even happens that the same company may publish different types of information in its sustainability reports in each year. For example, in one year a company in a sustainability report names the number of women in the company, the number of women on the board of directors and the number of women holding senior positions, and the next year this company can simply name the number of women on the board of directors. Another limitation linked to that is the sample size for our research. We managed to collect data for 22 companies. The larger sample may show different results but there is a problem of availability of required data for larger amount of companies and in a broader period of time. Moreover, our controls in regressions models may have omitted variable bias – they may affect the financial performance but miss values. There also may exist factors that have larger impact of financial performance of Russian companies than the share of female employees. For example, we can guess that the political situation and its instability affects the stock prices of Russian companies much more than gender equality among their workforce.

Next studies of other researchers can check the relationship effects between diversity and business performance using other sets of variables, research models or sample and the criteria for their selection. For example, at first, we wanted to use pay gap ratio between male and female employees as an independent variable of interest but we soon found out that there is no open and accessible annual data about salaries of males and females in Russian companies. In their reports, many companies state that their salaries do not depend on gender. If the reliable and available in open sources official data about pay gaps in different companies and sectors would be published in the future, the research based on it may be conducted. Additionally, other research studies may compare the situation of Russian market with markets of other countries or compare performance and parameters of workforce of Russian and foreign companies operating within Russian market. With

gender equality in business being a complex and therefore difficult topic, there is broad range of future research possibilities.

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