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Research paper



Gender Aspects of Modern Management: World Practices and Ukrainian Realities

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Abstract

The globalization processes taking place in modern economy shape new requirements for the development of managerial approaches aimed at ensuring the highest performance of companies. Gender diversity of top management can provide a comprehensive view of the top management of the company's development, improve its reputation and increase investor interest in the company. The purpose of this study is to analyze the gender aspects of the world and Ukraine's management practices. The paper analyzes a series of studies that prove the growing role of women in the top management of companies. The authors compare management styles of female and male managers. The specifics of gender issues in Ukraine are researched. The study has shown that employed women are more likely to be hired and, accordingly, they are more rarely employers and self-employed persons. Branches and activities that are mainly headed by women and those that are predominantly headed by men are highlighted. The authors came to the conclusion that under the conditions of the post-industrial economy there arise new factors of modern development, and the failure to consider them significantly reduces the efficiency of the functioning of companies and the state as a whole.

Keywords: *efficiency, female top managers, gender diversity, leader, management.*

1. Introduction

Globalization is the dominant feature of the development of the modern world economy. It is an objective process, which leads to increased interaction between countries, companies, strengthening of migration processes, increasing requirements for labor in almost all countries of the world. The market for skilled labor acquires global features, the global supply and global demand for highly trained professionals in different spheres of the economy, including highly skilled managers, is emerging. Global economic processes create new requirements for the development of managerial approaches to ensure the highest performance of companies. Informatization and intellectualization of labor lead to changes in the management system itself. At present, management processes take place at two parallel levels: a traditional in-house level, which involves direct managers and subordinates, and a virtual one, since much of the work is done by employees outside the office space and without the participation of their direct managers. Thus, firms outsource some of their functions, only concentrating their efforts on the core activities that are priority for them. Theoretical studies increasingly place more emphasis on non-financial aspects of the companies operations that influence managerial decision making. The ownership structure and the board of directors are of the greatest interest to the research community. Thus, the board of directors diversity, including the gender one, can provide the leadership with a comprehensive view of the company's development, improve its reputation and increase the interest of investors in the company. Hence, the analysis of the impact of social characteristics of the persons involved in business processes on the general managerial efficiency, assumes paramount importance. Among such characteristics it is reasonable to consider the gender aspect and evaluate the peculiarities of "male" and "female" management. The purpose of this study is to analyze the gender aspects of the world and Ukraine's management practices.

Research analysis and publications problem solution is based on. The issues of gender diversity of the company top management have been investigated by a number of researchers, among which Karen Korabik, Donna Lero, Roya Ayman, Leow Kah Loong, Eagly A. H., Foldy E.G., Goleman D. and others deserve special attention. But given the dynamic changes taking place in the global economy: the emergence of new leaders who generate their own managerial approaches enhancing managerial performance, the issue of interdependence and the interplay of gender aspects and the company performance remains topical. General tendencies of the global economy, directed towards globalization, make the price of errors in the managerial decision making increasingly higher. Only the companies with effective management survive, while the others go bankrupt or get taken over by large corporations.

2. Statement of the main material

Main material and results. At the beginning of the XXI century, new trends in understanding leadership issues emerge. One of them is taking into account the gender factor and, as a result, the appearance of a new scientific field − gender psychology of leadership [17]. As part of this area, the following aspects began to be

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explored: leadership functions; leadership style of men and women; criteria for success of different gender leaders.

It is worth pointing out that leadership qualities and possibility to realize one's potential as a manager depend on the country and mentality. In this context, it is appropriate to cite the results of the study by Karen Korabik, Donna Lero, Roya Ayman (2003) [17]. They analyzed data from 42 countries that were grouped into 10 cultural clusters. It turned out that women have higher rates by the "initiating structure" parameter (focus on the task) and the "attention" parameter (orientation to the relationship). However, these results were tracked mainly within the Western culture cluster, indicating a significant impact of the cultural factor on leadership qualities of top managers.

Similar studies were also conducted by Eastern scholars. Thus, Leow Kah Loong (2011) from Malaysia analyzed a sample of 961 people (auditors from 100 firms) [18]. 59% of this sample were women, 41% − men; 82% − Chinese and 13.5% − Malaysians (4.5% were representatives of other ethnic groups). The study revealed that the main factors for ensuring and improving managerial efficiency are the factors of mentoring and positive relations with the manager. And that was confirmed, first of all, by women respondents. Yet, these criteria were also very important for men, which allows to identify additional characteristics of Eastern companies management.

The works of Eagly A. H. (2003) deserve particular attention [9]. To compare different management styles, transactional and transformational paradigms were used for studying organizational leadership. Transactional leadership is based on purely business relationships between a manager and subordinates. While, transformational leadership is based on the emotional component and involves improving the internal psychological settings of subordinates. In the latter case, the manager does not act as a business partner, but as a mentor or teacher. Studies have shown that women are more prone to transformational leadership, and men to transactional one. Therefore Eagly A. H. concludes that women leaders are more promising and successful in terms of achieving managerial effectiveness. It is also important to note the growing popularity of the transformational approach, which indicates a further increase in the number of female leaders. It is stated in the work by R. Ayman and K. Korabik (2010) [6].

The American researcher Foldy E.G. (2012) addresses the gender aspect along with racial and professional discrimination [11]. The findings of the research conducted in a number of companies indicate that gender discrimination is taking place − women and "non-white workers feel less confident than men and whites. And above all, solving the problems of gender equality depends on top managers who are responsible for developing a corporate culture and ensuring a normal psychological climate in the company.

Recently, due to the works by Goleman D. (2011), the attention of researchers has increasingly been attracted by such a component as the emotional intelligence and its impact on managerial performance [12]. According to the research conducted, female leaders significantly surpassed their colleagues by the level of overall emotional intelligence and interpersonal emotional intelligence based on the technique of D. Lioussine (2004) [20]. And the differences pertained not only to the indicators of emotional intelligence, but also to many other aspects of psychological effectiveness: the authority of the top /manager, job satisfaction, and motivation of the employees. Personal characteristics of women provided them with the advantages in performing their managerial activities.

At the same time, according to Koenig A.M (2011) [16], women have lower levels of self-monitoring. Lupano P.M.L., Castro S.A. (2015) [21] found that self-monitoring is a determinant of leadership for men, not women.

Therefore, both women and men have the ability to perform managerial functions. But the question remains why most of the top management positions are occupied by men? What are the barriers for women on their way to top management?

One of the main barriers is the presence of stereotypes that the leader should be a man. It is confirmed by a number of studies. Thus, Afolabi A.O. (2013) [5] examined the views of 250 workers (men and women) who assessed the work of their female top managers. It was confirmed that gender stereotypes strongly influence the perception of the work process by representatives of both genders. However, female subordinates evaluated achievements of women managers higher than male subordinates. On the whole, gender stereotypes were a reflection of existing cultural beliefs that a woman cannot manage a company.

Studies conducted by American researchers Thoroughgood C.N., Sawyer K.B., Hunter S.T. (2013) [25] have proven that stereotypes are directed not only against female top managers. A male top manager was perceived as a person who is not entitled to a mistake. The male leader who made a mistake was rated lower than the female leader by the leadership competency. Women were treated with greater tolerance, which in principle reduced the likelihood of conflict situations.

It should be noted that over the last decades there has been an increase in the average number of women on the boards of directors. Women now hold more than 20% of the board seats of the Fortune 1000 companies that costitute the Gender Diversity Index (GDI) [1].

In the 801 active GDI companies, the number of women currently holding 20.8% of the board seats, has increased from 19.7% in 2016 and 14.6% in 2011.

19.8% of board seats of the companies ranked by total revenue in the 2017 F1000 were occupied by women. The list currently includes 980 active companies. In 2016, the proportion of women on the boards of directors in 967 active F1000 companies was 18.8% [1].

Larger companies continue to outpace smaller companies by the diversity of their boards of directors. In GDI F100 companies, 24% of the board seats belong to 272 women, which is on average 2.9 female directors per board. In GDI F500 companies, 22% of the board seats are held by 1051 women, which on average is 2.5 female directors per board, an increase as compared to 2.3 female directors last year. In smaller GDI F501-1000 companies there was no change in the number of female directors per board, with 677 women occupying 18.8% of board seats, on average 1.8 female director per board. Particularly interesting is the fact that 34% of the companies from the GDI list have 25% or more women on boards of directors, 19% have 30% or more, 4% have 40% or more, and only 1% of companies have parity [1].

Table 1: Breakdown of Fortune 1000 Showing F 1000, F100, F500 and F501-1000 [1]

	2017 current F 1000	2016 current F 1000	2017 GDI	2016 GDI	2011 GDI
FORTUNE 1000					
% Women on Board	19,8 %	18,8 %	20,8 %	19,7%	14,6%
Total Women	1979	1869	1728	1679	1440
Total Directors	9977	9947	8322	8537	9846
Active companies	980	967	801	810	951
FORTUNE 100					
% Women on Board	24,3%	23,5%	24,4 %	24,0%	19,6%
Total Women	284	284	272	273	233
Total Directors	1167	1210	1114	1139	1188
Active companies	98	100	95	95	100
FORTUNE 500					
% Women on Board	21,8 %	20,6 %	22,2 %	21,0%	16,4 %
Total Women	1155	1097	1051	1020	888
Total Directors	5307	5316	4724	4856	5407
Active compa-	488	484	428	436	489

nies					
FORTUNE 501-1000					
% Women on Board	17,6 %	16,7 %	18,8 %	17,9 %	12,5 %
Total Women	824	772	677	659	554
Total Directors	4670	4631	3598	3681	4436
Active companies	492	483	373	374	462

Six sectors of 2017 GDI companies have retained an average of 20% or more female directors on their boards since 2016. The greatest advance in diversity was made by Consumer Cyclical, Industrials and Real Estate sectors. Six sectors in the 2017 F1000 companies list have more than 20% female directors on their boards, with one sector more than in 2016. Women increased their presence on boards in every sector, though in the Energy sector the diversity is much lower with only 15.2% GDI and 14.0% 2017 F1000 female directors on the boards [1].

Table 2: Sector Analysis [1]

Sector	2017 Fortune 1000		GDI		
	Companies	% Women on Boards	Companies	2017 % WOB	2016 % WOB
Basic Materials	69	16,4 %	59	18,0 %	17,5 %
Communication Services	13	22,5 %	17	19,5 %	18,8 %
Consumer Cyclical	204	21,1 %	161	22,1 %	20,2 %
Consumer Defense	81	22,4 %	66	23,7%	22,8 %
Energy	53	14,0 %	49	15,2 %	13,9 %
Financial Services	127	22,0 %	115	22,0 %	21,3 %
Healthcare	80	19,3 %	67	21,3 %	21,0 %
Industries	187	17,9 %	136	19,3 %	17,7 %
Real Estate	23	23,1 %	12	27,1 %	24,0 %
Technology	101	18,8 %	74	18,2 %	17,9 %
Utilities	42	22,9 %	45	23,6 %	22,7 %

There are several objective factors that explain the increasing presence of women on the companies' boards of directors: legislative quotas, global demographic and social trends. The minimum quotas for women on the boards of directors in one form or another are legally imposed in 22 countries of the world. Norway is an outstanding example among them, where in 2003 the quota for all public companies was set at 40%. In 2012, an attempt was made to pass an analogous bill in the European Parliament, with similar laws in seven European countries. The quotas for women on the boards of directors exist not only in developed countries. Seats for women on the boards of directors of public companies are legally secured in India and Malaysia and for the companies with a government stake − in the Republic of South Africa, Kenya and the United Arab Emirates [7].

The presence of women in top management significantly affects the peculiarities of management and corporate culture. The work of Adams B. and Funk P. makes it possible to understand whether decisions made by women in managerial positions differ from the decisions of their male colleagues, based on the Schwarz value approach used in psychology [3]. The authors interviewed women who are senior managers or members of the boards of directors in Swedish companies. Having applied the regression analysis to the survey data, the authors were able to compare the attitudes of women and men to the following psychological values: achievement, power, security, conformism, tradition, non-violence, universalism, autonomy, encouragement, hedonism and risk. The results of the study indicate that women are less prone to conflict, conformism, and tradition than their male counterparts, though they are more predisposed to taking risks. At the same time, significant social differences were identified within the top management and board of directors: women are generally younger, less likely to have husbands and children. That allows the authors to state that the behavior of men and women in managerial positions of Swedish companies varies considerably.

Psychological differences between men and women in managerial positions are highlighted in the work of Grant A. and Taylor A. (2014) [13]. They interviewed 20 men and 20 women with the same work experience as the top managers and members on boards of directors of American companies ranked in the Fortune 50 list. The authors concluded that men and women in managerial positions differ significantly in verbal and non-verbal means communications, the fact that can have an impact on the nature of management.

Levi M. (2013) and colleagues investigated the relationship between gender diversity on the board of directors and M & A policies [19]. They came to the conclusion that the proportion of women on the board of directors negatively correlates with the company M & A operations.

The quality of corporate management affects the company's efficiency, so the non-financial factor is of particular interest to investors and financial institutions which make up different ratings of corporate management efficiency.

The work of Adams R. et al. allows us to assess the response of investors to gender diversity [4]. The study was based on the data from the Australian Stock Exchange. The authors concluded that investors are positively responding to the inclusion of women on the Board of Directors. In addition, women more often have an academic degree or an MBA degree than their male counterparts.

Of considerable interest is the work of Adams B. and Ferreira D. (2009) [2], which explores the impact of gender disparity on the boards of directors on the indicators of strategic efficiency of companies. The authors consider the interdependence of the board's gender diversity with the Tobin's Q and ROA indicators, which, in their view, reflect the long-term efficiency of the company. The researchers managed to show that the presence of women on the board of directors reduces absenteeism at the meetings among male directors and increases the amount of CEO compensation in the form of shares, though the main issue of the existence of a stable relationship between the proportion of women on the board of directors and Tobin's Q and ROA strategic efficiency indicators remains unanswered.

More significant results were obtained by Chinese researchers Liu Y., Wei Z., Xie F. (2013) [21]. Having examined 2,000 Chinese companies, the authors not only analyzed the impact of women on such indicators as ROE and ROA, but they also examined the relationship between women in top management and the company efficiency. Based on the calculations made, the authors have shown a significant positive effect of the presence of female directors on the performance indicators of the company.

Therefore, men and women in the company management positions may have different management approaches that influence decision making on such important issues as M & A agreements, placement of securities on the stock exchange, the company's internal organization and its strategic performance measured by the Tobin's Q index. It should be noted that the more efficiently the company operates, the more innovative decision-making in the area of management and application of risky strategies it can afford. The presence of women in top management is one of such innovative decisions.

According to recent studies by the World Bank, the reduction in the difference in the economic activity of women and men was an important factor in economic growth, which increased the GDP in Europe by 13%, in the United States by 9%, in Japan by 16% [29]. This impact was due to the fact that, firstly, the promotion of gender equality is accompanied by an increase in labor productivity [14], and secondly, the elimination of gender discrimination in the choice of profession and labor compensation can help increase women's earnings [30].

Thus, in Latin American countries, the elimination of gender segregation and wage differentials could result in an increase in women's earnings by 50%, with a slight impact on men's earnings and an increase in GDP by 3-9% [26]. The results of the study of

eight Latin American countries show that the elimination of barriers to increasing the representation of women in the workforce and giving them equal rights in choosing their occupational activities can help reduce poverty and raise income levels [24] In general, according to the UN expert assessments, restrictions on the economic activity of women may cost countries 42-46 billion USD a year [31].

However, international experts emphasize that economic growth is characterized by a positive correlation with the reduction of gender inequality, as a rule, in high-income countries [24]. This is due to the fact that in the countries with low income and weak activity of trade unions, companies have the opportunity to pay women lower labor compensation as compared to their labor productivity. That allows companies to earn extra profits in the face of intense competition among a significant number of women with appropriate qualifications for a limited number of jobs.

Gender issues are the issues of the global level. In September 2015, the United Nations Summit on Sustainable Development and the Adoption of the Agenda for Development beyond 2015 [31] was held in New York in the framework of the 70th UN General Assembly. The outcome document of the Summit "Transforming Our World: The 2030 Agenda for Sustainable Development" approved 17 Sustainable Development Goals and 169 Targets. Among the goals of sustainable development, gender equality occupies an important place. Empowering women and reducing gender disparities in health care, education, labor market, etc. contributes to the reduction of poverty, the growth of economic development, the increase in productivity, etc.

Specifics of gender issues in Ukraine in general reflect the discrepancies in the situation women and men are in, and which are characteristic of the developed countries of the world. Thus, there are no visible gender imbalances in the access to basic social services for the population, opportunities for education and performing economic activities. At the same time, women have an average income lower than men, and perform most of the unpaid work on family responsibilities in households. Moreover, the impact of gender stereotypes results in the spread of such phenomena as occupational segregation of gender-based employment, inability to recognize gender-based discrimination, low awareness of the patterns of domestic violence and lack of usual practice of seeking help [23].

Particular attention needs to be paid to the problem of women's disproportionate representation in decision-making, management positions in institutions, organizations and enterprises. A number of studies indicate that women's leadership in economic life is an important factor in sustainable development and growth at the level of the country, community, or a particular company [15].

According to the State Statistics Service of Ukraine, the employment rate among women in Ukraine is lower than among men (52% and 62% respectively) [27]. The employment rate among women in Ukraine is comparable to that of the average in Europe, and the gap in the employment rate between women and men is lower than the average for the EU. The employment rate among women in Ukraine is close to the figure in such countries as Croatia (57%), Italy (52%), Greece (47%), though it is lower than the EU average (65%) [10].

Employed women are more likely to be hired and, accordingly, less likely to be employers and self-employed (compared with men). Thus, among employed women, 87% are hired (compared with 82% among men), 12% are self-employed (compared with 16% of men), and 0.8% are employers (compared with 1.5% of men). Hence, women constitute 42% of all self-employed people, and 32% among employers [9].

According to the results of the analysis of the data of the Unified State Register of Enterprises of Ukraine, the proportion of women top managers in general (among all active economic entities) is 40%. But this level was achieved mainly due to the individual entrepreneurs, accounting for 63% of all economic entities: the proportion of women among active individual entrepreneurs is 46%. At the same time, among legal entities, the proportion of women top managers is lower: they head 30% of enterprises and organizations [28]. It means that in Ukraine women's opportunities to conduct their own business as individual entrepreneurs are almost equal to men's, though it is much less likely that a woman will head an enterprise or organization. There are industries and activities in Ukraine that are predominantly headed by women, and there are the ones that are predominantly headed by men (Table 3) [28].

Table 3: Distribution of managers and individual entrepreneurs within each section of the classification of economic activities [28]

Section	Number of men	Number of women
Wholesale and retail trade; repair of motor vehicles and motorcycle	591613	535384
Provision of other types of services	139124	117361
Professional, scientific and technical activities	88293	61172
Real estate operations	62115	51976
Activity in the field of administrative and support services	71980	51398
Hotel and catering	36126	40000
Education	17128	39034
Information and telecommunications	112729	37799
Processing industry	121942	37233
Health care and social services	26039	21707
Public administration and defense; compulsory social insurance	18941	20599
Transport, warehousing, postal and courier activities	121573	19026
Agriculture, Forestry and Fisheries	80854	18258
Construction	88458	14232
Arts, sports, entertainment and recreation	15652	12211
Financial and insurance activities	11351	6903
Water supply; sewage, waste management	7739	1946
Supply of electricity, gas and air conditioning	3184	589
Mining and quarrying	3416	458
Activities of households	52	56
Activities of extraterritorial organizations and bodies	73	34

As we can see, education is the only branch in which most managers (69%) among legal entities and individual entrepreneurs are women. Branches with a high proportion of women top managers are public administration and defense; compulsory social insurance and hotel and catering sector. However, in these sectors, the proportion of women top managers is 52-53%, which characterizes them more as gender-balanced.

Some types of activities, where the organizations are mainly headed by women, are accounting and auditing, tourism, beauty salons, concert halls, trade unions, and social services institutions (Table 4) [28].

Table 4: Types of activities (Class of the Classification of the Types of Economic Activities) of legal entities dominated by women headed organizations [28]

Type of activities (Class of Classification of the Types of Economic Activities)	Percentage of women top managers,%	Total number of legal entities
Activities of tour operators	61	1959
Activities of travel agencies	62	3979
Activities of trade unions	62	25062
Activities in the field of accounting and audit; tax consultancy	62	4526
Functioning of theater and concert halls	66	1349
Education in the field of culture	66	1431
Regulation in the spheres of health, education, culture and other social spheres, except for compulsory social insurance	68	1825
Secondary education	68	16575
Providing services by hairdressers and beauty salons	77	1689

So, if we talk about the most widespread types of activities, women predominate (constitute more than 60%) only in pre-school and secondary education, as well as in trade unions.

Let us determine the impact of the number of women top managers on the regional gross product in Ukraine with the help of pair correlation. The calculation of the pair correlation between the indicator of the number of women top managers (x) and the regional gross product (y) in Ukraine is given in Table 5. As a raw data, we have taken the relevant indicators by regions of Ukraine for 2016. Since we applied pair correlation, the representativeness of the sample is quite sufficient (at least 14 pairs of indicators are required for representativeness of the sample). The Pearson's correlation coefficient (r_{XY}) in our case is 0.9268, which indicates a direct and close correlation between the number of women leaders (x) and the regional gross product (y).

Table 5: Calculation of the pair correlation coefficient between the number of women top managers and the regional gross product in Ukraine for 2016 [27, 28]

№ з/п	Region	Number of women top managers, people (x)	Regional gross product, mln. UAH (y)	$x-\bar{x}$	$y-\bar{y}$	x^2	y^2	$x\times y$
1	Vinnytsya	37126	74411	-4270,28	-21003,68	18235291,28	441154573,5	89691594,63
2	Volyn	22347	35744	-19049,28	-59670,68	362875068,5	3560590052	1136683491
3	Dnipropetrovsk	73398	244478	32001,72	149063,32	1024110083	22219873369	4770282629
4	Donetsk	71492	137500	30095,72	42085,32	905752362,3	177117416 0	126658800 7
5	Zhytomyr	26743	47919	-14653,28	-47495,68	214718614,8	2255839619	695967497,8
6	Zakarpattya	29337	32390	-12059,28	-63024,68	145426234,1	3972110289	760032263
7	Zaporizhzhya	46374	104323	4977,72	8908,32	24777696,4	79358165,22	44343122,63
8	Ivano-Frankivsk	26142	51404	-15254,28	-44010,68	232693058,3	1936939954	671351235,7
9	Kyiv	50149	128638	8752,72	33223,32	76610107,4	1103788992	290794417,4
10	Kirovohrad	22339	46021	-19057,28	-49393,68	363179921	2439735624	941309190
11	Luhansk	36356	31356	-5040,28	-64058,68	25404422,48	4103514483	322873683,6
12	Lviv	51268	114842	9871,72	19427,32	97450855,76	377420762,4	191781063,4
13	Mykolayiv	36251	57815	-5145,28	-37599,68	26473906,28	1413735936	193460881,5
14	Odesa	75933	119800	34536,72	24385,32	1192785028	594643831,5	842188969
15	Poltava	32595	116272	-8801,28	20857,32	77462529,64	435027797,6	-183571113,4
16	Rivne	23752	39469	-17644,28	-55945,68	311320616,7	3129919111	987121242,7
17	Sumy	23606	46287	-17790,28	-49127,68	316494062,5	2413528942	873995183
18	Ternopil	21933	31072	-19463,28	-64342,68	378819268,4	4139980470	1252319597
19	Kharkiv	71866	154871	30469,72	59456,32	928403836,9	3535053988	1811617423
20	Kherson	25392	38743	-16004,28	-56671,68	256136978,3	3211679314	906989434,8
21	Khmelnytskiy	26977	48859	-14419,28	-46555,68	207915635,7	2167431340	671299385,5
22	Cherkasy	23454	59412	-	-	321925411	129619296	645970165

				17942,28	36002,68	,6	7	,3
23	Chernivtsi	22204	21239	-19192,28	-74175,68	368343611,6	5502031503	1423600420
24	Chernihiv	22308	43362	-19088,28	-52052,68	364362433,4	2709481495	993596130,6
25	City of Kyiv	135565	559140	94168,72	463725,32	8867747826	215041172409	43668419816
Total		1034907	2385367	0,00	0,00	17109424861,0	289851379147,4	65268705729,2
Average Average value		41396,28	95414,68					
Correlation coefficient				0,926828991				

Let us determine the form of dependence and construct a mathematical model of the relationship between the number of women top managers and the regional gross product in Ukraine (Table 6).

Table 6: Calculation of the parameters of the correlation relationship between the number of women top managers and the regional gross product in Ukraine [27, 28]

№ з/п	Region	Number of women top managers, people (x)	Regional gross product, mln. UAH (y)	$x \times y$	y^2	x^2	y_x
1	Vinnytsya	37126	74411	2762582786	5536996921	1378339876	79124,49778
2	Volyn	22347	35744	798771168	1277633536	499388409	22745,8521
3	Dnipropetrovsk	73398	244478	17944196244	59769492484	5387266404	217494,2275
4	Donetsk	71492	137500	9830150000	18906250000	5111106064	210223,2553
5	Zhytomyr	26743	47919	1281497817	2296230561	715188049	39515,62857
6	Zakarpattya	29337	32390	950225430	1049112100	860659569	49411,17
7	Zaporizhzhya	46374	104323	4837874802	10883288329	2150547876	114403,5908
8	Ivano-Frankivsk	26142	51404	1343803368	2642371216	683404164	37222,9453
9	Kyiv	50149	128638	6451067062	16547735044	2514922201	128804,3883
10	Kirovohrad	22339	46021	1028063119	2117932441	499030921	22715,333385
11	Luhansk	36356	31356	1139978736	983198736	1321758736	76187,116155
12	Lviv	51268	114842	5887719656	13188684964	2628407824	133073,1281
13	Mykolayiv	36251	57815	2095851565	3342574225	1314135001	75786,56456
14	Odesa	75933	119800	9096773400	14352040000	5765820489	227164,6969
15	Poltava	32595	116272	3789885840	13519177984	1062434025	61839,7259
16	Rivne	23752	39469	937467688	1557801961	564157504	28105,61915
17	Sumy	23606	46287	1092650922	2142486369	557243236	27548,66115
18	Ternopil	21933	31072	681502176	965469184	481056489	21166,53284
19	Kharkiv	71866	154871	11129959286	23985026641	5164721956	211649,9833
20	Kherson	25392	38743	983762256	1501020049	644753664	34361,85969
21	Khmelnytskiy	26977	48859	1318069243	2387201881	727758529	40408,28728
22	Cherkasy	23454	59412	1393449048	3529785744	550090116	26968,81446
23	Chernivtsi	22204	21239	471590756	451095121	493017616	22200,33844
24	Chernihiv	22308	43362	967319496	1880263044	497646864	22597,07565
25	City of Kyiv	135565	559140	75799814100	312637539600	18377869225	454647,7065
Total		1034907	2385367	164014025	517450408	59950724	2385367

			964	135	807	
/Average	41396,28	95414,68	6560561039	20698016325	2398028992	95414,68

The equation parameters of the correlation relationship between the number of women top managers and the regional gross product in Ukraine are as follows:

$$a = -62{,}503.05,$$
$$b = 3.81478.$$

Accordingly, the general equation form of the correlation relationship between the number of women top managers and the regional gross product in Ukraine is as follows:

$$y_X = -62{,}503.05 + 3.81478 \times x.$$

Graphically, the form of the dependence is presented in Fig. 1.

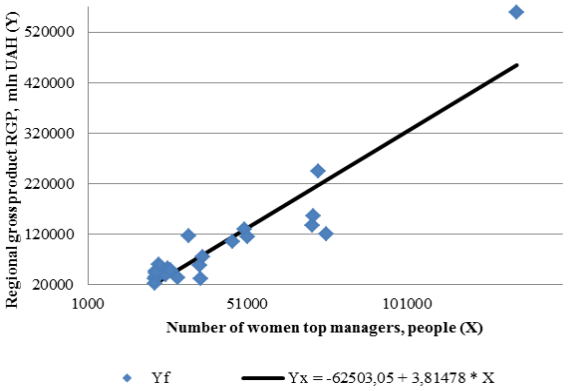


Fig .1: Empirical and theoretical distribution of relationship between the number of women top managers and the regional gross product in Ukraine

Thus, the calculated equation of the correlation between the number of women top managers and the regional gross product in Ukraine shows that, with the increase in the number of female managers at the enterprises by 1 person, the regional gross product in Ukraine may increase by 3.815 million UAH under the influence of this factor.

3. Conclusions

Thus, under the conditions of the post-industrial economy, there arise new factors of modern development and the failure to consider them significantly reduces social, economic and institutional efficiency of functioning of the companies and the state as a whole. Gender structure of the company top management affects the efficiency of its activities, corporate culture, and the relationship with potential investors. Women are increasingly reaching key positions in top management and on boards of directors of the leading companies of the world. Among the objective factors that explain the increase in the presence of women on the companies' boards of directors one should first of all highlight legislative quotas, global demographic and social trends.

In Fortune's top companies, the number of women on the boards of directors is steadily increasing. The sectors with the highest gender diversity were Consumer Cyclical, Industrials and Real Estate sectors.

In Ukraine, the situation concerning gender diversity is slightly different. Gender imbalance is quite significant among the heads of organizations, at the same time there is almost no gender imbalance among individual entrepreneurs. This imbalance is associated, first of all, with the lower economic activity of women. The largest number of women top managers in Ukraine can be observed in education, while transport, construction, and agricultural sectors are mostly managed by men. There are also some types of activities where female top managers make up the majority: education and child care, social services, hotel and catering, food and clothing retailing, clothing, beauty salons, tourism, arts and recreation, accounting and audit.

Quantitative assessment of the effect of the number of women top managers on the overall indicators of Ukraine's economic development is possible by calculating the correlation coefficients between the number of women top managers and the regional gross product in Ukraine. The calculation was made on the basis of statistical data from 2016. Determining the closeness and the form of relationship between the number of women top managers and the regional gross product in Ukraine will allow us to conclude that with the increase in the number of women managers of enterprises by 1 person, the regional gross product in Ukraine may increase by 3.815 million UAH under the influence of this factor.

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