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Digitalisation, Growth Vision and Gender Equality Practices in the Machines and Equipment Sector – Does Gender Matter?



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ABSTRACT

This paper explores the nuanced relationship between gender diversity in senior management and key aspects of organizational dynamics in the machines and equipment sector in the Republic of Serbia. The aim is to uncover differences in digitalization, growth strategies and gender equality measures between companies led by women and men. Employing field research methods, specifically utilizing Computer Assisted Telephone Interviewing, the results show that companies led by women have a higher propensity to adopt information and communication technologies, a more optimistic view of their future development over the next five years, greater gender diversity among employees and more

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robust implementation of gender equality policies compared to companies led exclusively by men. The research findings highlight the significant impact of gender diversity in leadership on business outcomes and show that women-led companies are proactively embracing digitalization, promoting growth optimism and implementing gender equality initiatives. These findings offer valuable insights for business leaders, policymakers and researchers working on initiatives to promote diversity, equality, and technological progress.

KEYWORDS: *women in leadership, women entrepreneurship, machines and equipment sector, ICT adoption, growth strategies, Serbia*

Introduction

The unequal engagement of men and women in entrepreneurship is a subject of significant concern for researchers and policymakers in both developed and developing nations. There are three primary lines of research that shed light on the differences in entrepreneurial outcomes between men and women: personality and traits, gender beliefs and ascriptions, and contextual factors (Rietveld & Patel, 2022). The relative significance of these factors may vary across individuals, industries, and regions. Additionally, the interplay and combination of these factors likely influence entrepreneurial outcomes in a nuanced way.

The disparity between genders is more pronounced in established businesses compared to early-stage activities. Data from the Global Entrepreneurship Monitor (2023) reveal that the global established rate for women in 2022 is 5.5%, while for men, it is 8.1%. These data underscore the challenges women face in advancing to and sustaining businesses at later stages. This report points to positive developments in women's entrepreneurial activities in certain regions, characterized by an increase in early-stage entrepreneurial activities and a narrowing of the gender gap. Despite these positive trends, the overarching conclusion emphasizes the need for significant efforts to promote and support women entrepreneurs. Challenging stereotypes and broadening societal perspectives are cited as crucial steps to promote a more inclusive vision of entrepreneurship.

Entrepreneurship is not only an economic and social activity but is also widely recognized as a “gendered process” (Nguyen, Lin & Vu, 2023; Marlow, 2019). This means that the experiences, opportunities, and challenges that individuals face in entrepreneurship are often influenced by their gender. Furthermore, the priorities and decision-making processes

often differ considering the gender structure of a company's owners and managers (Marlow, 2019). This intricate interplay between entrepreneurship and gender dynamics forms the backdrop for our research, which specifically examines the impact of gender diversity in senior management on digitalization, growth vision, and gender equality practices in the machines and equipment sector. We aim to contribute not only to the broader understanding of gendered processes in entrepreneurship but also to the strategic considerations that companies need to make in order to leverage the diverse perspectives and strengths that bring women in leadership positions to the forefront of technological and organizational progress.

In modern times, many nations have taken legislative measures to ensure equal representation of women on company boards. Spain was one of the pioneers in introducing legal provisions requiring the inclusion of women on corporate boards (Reguera et al., 2017), followed by India (Kamath, 2022), which introduced similar practices. Despite legislation mandating a fixed quota of female board members in companies, compliance with these guidelines appears to be gradually gaining ground, albeit at a moderate pace (Kamath, 2022).

The intersection of gender dynamics with digitalization and visions of growth is a compelling area of study, as it not only reflects the evolving nature of the sector, but also highlights the need for inclusive and equitable practices. Despite progress towards gender equality in various domains, disparities persist, raising critical questions about the impact on innovation, organizational culture, and overall sectoral advancement.

Gender diversity and inclusive leadership are recognized as factors that foster innovation and facilitate successful digital transformation efforts within organizations. Gender diversity in top management teams has a positive impact on innovation and, thus, on the overall performance of the company (Lee & Chung, 2022; del Mar Fuentes-Fuentes et al., 2023; Capozza & Divella, 2023). Organizations with greater gender diversity tend to exhibit higher levels of innovation, including generating new ideas, developing innovative products and services, and implementing creative solutions to complex problems. In addition to gender diversity, the presence of inclusive leadership practises is particularly important for creating a supportive work environment. This includes open communication, encouraging collaboration and valuing different opinions within the organization.

There is a dynamic relationship between digital transformation and gender equality. On the one hand, digitalization is a powerful tool to influence gender diversity; on the other hand, gender diversity has numerous positive effects on digital transformation. Gender diversity brings different perspectives, creativity, innovation and inclusion to organizations. Empirical research has shown that in countries with a high proportion of women in middle and senior management positions, the integration of digital technologies in organizations tends to be higher, and more demanding ICT tasks are performed by women in the workplace (Onozaka & Nemoto, 2023).

In an era characterized by rapid technological advances and unprecedented digitalization, industries are forced to adapt quickly in order to remain competitive and secure their growth. As a cornerstone of global economic development, the machines and equipment sector is at the forefront of this wave of transformation. This sector includes nine divisions of the manufacturing industry (as indicated in the “Data and Methods” section), which is considered the backbone of economic growth in national economies. Manufacturing plays a crucial role in the economy due to its extensive linkages with other sectors of the economy through the value chain. Compared to other sectors, manufacturing offers the best conditions for capital accumulation, technological innovation and economies of scale. In addition, manufacturing offers favorable conditions for capital accumulation, economies of scale, technological innovation and digital transformation.

Future machines and manufacturing systems are identified as one of the priority areas in the Smart Specialisation Strategy of the Republic of Serbia. More specifically, the following sub-priorities are supported: General and special-purpose machines, Information for smart management: Industry 4.0, Smart components and tools (Smart specialization strategy of the Republic of Serbia for the period 2020 to 2027, 2020). Although there are ongoing efforts to promote gender equality in various industries, the machines and equipment sector represents a unique landscape where traditional gender imbalances persist. As companies in this sector leverage digital technologies to increase efficiency and innovation, it is imperative to critically examine the intersection of growth visions and gender equality practices within their organizational framework.

The main objective of this paper is to investigate potential disparities in digitalization, growth strategies, and gender equality measures between

companies led by women and men in the machines and equipment sector within the Republic of Serbia. In this research, the term “digitalization” encompasses a wide range of technological progress and adjustments that companies are making to adapt to the digital era. To measure the extent of adoption of information and communication technologies (ICT), businesses were surveyed about their utilization of particular technologies such as Cloud service, Enterprise Resource Planning software, Customer Relationship Management software, or the Internet of Things. Specifically, the study aims to ascertain whether discernible differences exist between companies led by women and those led by men in these critical dimensions.

Following the main objective, three research questions (RQ) are formulated:

- RQ1: Are there any differences in ICT adoption between companies led by women and those led by men?
- RQ2: Are there any differences in growth vision between companies led by women and those led by men?
- RQ3: Are there any differences in gender equality practices between companies led by women and those led by men?

In accordance with the main objective of the study and the three research questions, the companies surveyed are divided into two groups depending on whether they have women in senior management positions. Subsequently, the non-parametric Mann-Whitney test is used to determine whether there are differences between companies led by women and those led by men in terms of the use of ICT, growth vision and gender equality practices.

This research contributes to a better understanding of the current landscape and informs potential interventions or policies that can promote inclusivity and equitable opportunities for both women and men in leadership roles within the machines and equipment industry in Serbia.

The structure of the paper is as follows. The next section provides an overview of the literature on digitalization, growth strategies and gender equality measures from the perspective of gender differences. A further section describes the materials and methods, including the data used for the statistical analysis. The third section presents the most important results and findings of the statistical analysis. The final section summarises the main conclusions.

Literature Review

A systematic literature review conducted by Cardella, Hernandez-Sanchez and Sanchez-Garcia (2020) highlights the increasing trend in research studies on women's entrepreneurship, which began in 2006 and peaked in 2019. Six distinct research themes were recognized, highlighting the significance of entrepreneurial education, social entrepreneurship, and socio-cultural elements like culture, family, and institutional support as instruments to tackle the gender gap. Furthermore, it emphasizes the pivotal role of women's entrepreneurship in fostering economic growth, particularly in developing nations, fostering social inclusion, and combating poverty and discrimination.

Recognizing ICT as a catalyst for empowering female entrepreneurship is in line with global perspectives, as underscored by the United Nations Conference on Trade and Development (UNCTAD, 2014). UNCTAD emphasizes the central role of ICT in job creation, economic growth, poverty reduction and gender equality. In emerging economies, the use of ICT has transformative potential to reshape the social, political and economic landscape for women. Ajumobi and Kyobe (2016) argue that ICTs in such contexts can promote growth opportunities, contribute to development and address socioeconomic inequalities.

Crittenden, Crittenden and Ajjan (2019) looked at the decision-making processes of women entrepreneurs in relation to ICT adoption. This study emphasizes the importance of their reflections on the perceived ease of ICT use and associated benefits. Significantly, the study revealed a robust and direct relationship between ICT use, self-efficacy and the formation of bonding social capital, shedding light on the multifaceted impact of technology on entrepreneurial endeavors. In addition, recent research focussing on small and medium-sized enterprises (SMEs) has revealed significant differences in the perspectives of women and men-led businesses on digital transformation. Women-led businesses showed a greater commitment to social networking platforms and a higher proportion of employees with ICT skills than their male-led counterparts. These findings suggest that women in leadership positions in SMEs tend to use social networks more intensively and employ more ICT professionals, highlighting the nuanced dynamics of digital adoption and utilization across gender boundaries (Alam, Erdiaw-Kwasie & Wiesner, 2022). Findings by Shamaki, Ibrahim, and Philemon (2022) suggest that while digitalization awareness

alone does not significantly impact business performance, the adoption and adaptation of new technologies play a critical role in creating value and enhancing customer satisfaction. This underscores the necessity for businesses, particularly those led by women, to actively engage with evolving digital landscapes to remain competitive and responsive to market demands. While these studies provide valuable insights, they may not fully capture the complexity of gender dynamics in specific industries, which points to a gap in the literature that our research aims to fill.

Building on the interplay between gender dynamics, digitalization and growth strategies, the literature on gender entrepreneurship highlights the particular contributions of female leaders to sustainable investment and environmental protection (Atif, Alam & Hossain, 2020). Women entrepreneurs show a strong commitment to incorporating green practices into their businesses, driven by unique motivations. Most notably, women demonstrate a proactive approach to seeking green networks, connecting with like-minded businesses, accessing a broader customer base, and utilizing alternative resources, all of which contribute to the expansion of their green business networks (Braun, 2010). Complementing this, an empirical study by Nguyen, Lin and Vu (2023) looks at the motives for environmentally conscious practices in women-led businesses. This study distinguishes between intrinsic motivation and extrinsic pressure and shows that women-led firms tend to adopt environmentally friendly practices for both intrinsic and extrinsic reasons, which emphasizes the multifaceted nature of their environmental commitment. Moreover, a study focusing on women entrepreneurs in Serbia (Chroneos Krasavac, Karamata & Đorđević, 2019) emphasizes the importance of complementing the environmental dimensions with economic and social components in business activities in order to fully exploit their potential impact. This intuitive inclination towards environmental aspects is in line with the broader discussion on gendered processes in entrepreneurship and emphasizes the need for a holistic approach. However, it's crucial to critically assess the applicability of these findings to other contexts and industries, particularly within the machines and equipment sector in Serbia. In Serbia, where the traditional gender imbalance in the machines and equipment sector persists, understanding and promoting such multi-faceted approaches is crucial for women entrepreneurs to make a meaningful contribution to the national economy.

Numerous studies have endeavored to investigate the relationship between gender and a company's commitment to exports. Marques (2015) found that the gender of top managers and owners exerts an indirect influence on a company's exports through factors such as the company's productivity, access to finance, choice of sector and the voluntary decision to export. When these factors are taken into account, the sole gender effect diminishes, suggesting that the impact on export decisions is not solely due to being a woman, but rather to the ownership and sector characteristics of women-owned or managed firms. Similarly, the study by Garg and Shastri (2022) provides insights into the export behavior of companies with a majority of female owners. In contrast to Marques, their findings suggest that such companies are less inclined to export. However, when these companies decide to export, the gender of the owner has no significant influence on the choice of export type or export intensity. This nuanced view sheds light on the complicated interplay between gender, ownership and export decisions and highlights the need for a comprehensive understanding of factors beyond gender to explain export behavior.

Sabarwal and Terrell (2005) have shown that female entrepreneurs achieve profit margins per unit of turnover that are equal to those of their male colleagues. However, women entrepreneurs tend to operate small businesses due to capital constraints and a concentration in industries dominated by small firms. This suggests that women's returns to scale are notably higher than men's, implying potential benefits from scaling up their enterprises. Subsequently, Christiansen et al. (2016) investigated the correlation between gender diversity in leadership roles and firm performance. The study revealed a positive relationship, emphasizing that a greater representation of women in decision-making positions is associated with enhanced financial performance. This positive correlation is particularly pronounced in service sectors, where women constitute a larger workforce, and in manufacturing, where there is a high demand for complementary skills and critical thinking. Conversely, in retail and construction, there is no statistically significant difference in the financial performance of companies based on the proportion of women in management positions. Nevertheless, it is crucial to acknowledge that the causative link between gender diversity and firm performance is not conclusively established, warranting further research to comprehend the underlying mechanisms.

Given the sector-specific nuances in the relationship between gender diversity and firm performance, it becomes evident that a one-size-fits-all approach may not be appropriate. Instead, targeted research in specific industries can provide deeper insights into the dynamics at play. In this context, the machines and equipment sector stands out as a compelling area for analysis due to its technological complexity, innovation-driven nature and historical gender imbalance in leadership positions.

Previous studies concerning gender inequality in the machines and equipment sector have largely been ignored. Recent research on women's entrepreneurship in Serbia has focussed on assessing their potential for further development, identifying the main obstacles and motives and determining their contribution to the national economy. In a study by Pavlović et al. (2022) in the tourism industry, the results emphasize the crucial role of education, training and financial support for women in starting their businesses. Financial support is cited as a decisive factor in maintaining businesses in the tourism sector. Milojević et al. (2021) examined women's entrepreneurship in organic food production in Serbia and highlighted promising opportunities, despite challenges such as economic stagnation, indebtedness to foreign investors and the impact of the global Covid-19 pandemic on the sector. The study notes that the impact of automation and digitalization on organic food production and women's participation is uncertain and emphasizes the need for greater and transparent incentives to promote women's employment. It also calls for the development of expertise and management skills, especially for work in small family farms and potentially larger businesses. Another study by Jovanović and Lazić (2018) shows that there are still obstacles for female entrepreneurs in Serbia, especially difficulties in accessing information about potential markets, technologies and sources of financing. Despite the obvious potential for female entrepreneurship in the country, these challenges highlight the need for targeted support and interventions to close information gaps and facilitate women's entrepreneurial endeavors.

Although the aforementioned studies offer valuable insights, there are notable gaps in the current research landscape. While there are numerous studies on women's entrepreneurship in Serbia in general, as well as in sectors such as tourism and organic food production, there is a lack of studies specifically focusing on the machines and equipment sector. This sector represents a significant segment of the economy and offers unique challenges and opportunities for women entrepreneurs. Therefore, our study

aims to fill this gap by examining potential differences in digitalization, growth strategies and gender equality policies in the machines and equipment sector in the Republic of Serbia. By filling these gaps, our study aims to contribute to a more nuanced understanding of gender dynamics in entrepreneurship and support policy measures to promote inclusion and equal opportunities for women in leadership positions.

Data and Methods

Our research employed a field research method, specifically utilizing Computer Assisted Telephone Interviewing (CATI), to survey companies within the Republic of Serbia operating in the machines and equipment sector. Block and Erskine (2012) point out that telephone interviews have distinct advantages, such as the flexibility and access that researchers do not have with traditional methods, and that many of the challenges of telephone interviews are simply the result of a natural trade-off that exists with all research methods. The main advantage of CATI is that the data is entered directly into the survey database in a structured format, so that no additional data processing is required, and the survey process is, therefore, faster.

The population for the sample selection was formed on the basis of the Statistical Business Register of the Republic of Serbia. It includes all active companies that have submitted the financial report for the year 2020 and whose main activity corresponds to the equipment and machines sector. The broader definition of the equipment and machines sector includes the following economic activities according to the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2): rubber and plastic products (22), fabricated metal products (25), computer, electronic and optical products (26), electrical equipment (27), machinery and equipment (28), motor vehicles, trailers and semi-trailers (29), other transport equipment (30) and repair and installation of machinery and equipment (33) (Eurostat, 2008). Enterprises with fewer than 5 or more than 500 employees were excluded from the population. The decision to exclude companies with fewer than 5 employees is due to their simplified management structures, which could provide meaningful insights into the interplay of gender dynamics, digitalization and growth strategies. Conversely, the exclusion of companies with more than 500 employees reflects the assumption that larger organizations are better placed to implement comprehensive gender management strategies. Given their

extensive resources and established operational frameworks, it can be assumed that they are more advanced in addressing gender issues than smaller organizations. The population thus defined consisted of 2,850 enterprises.

Stratified random sampling was chosen as the sampling method, as it enables a more accurate representation of the population. This method requires a smaller sample size, which saves resources and time. It ensures that each subgroup of the population is adequately represented in the sample. Consequently, stratified random sampling provides better coverage of the population as it allows control over the subgroups and ensures that all subgroups are represented in the sample. The stratification was carried out according to NACE Rev. 2 two-digit activity, regions, and the company size. The regional stratification was carried out for the four statistical regions of the Republic of Serbia – Vojvodina, Belgrade, South and East Serbia, Šumadija and West Serbia. The strata for company size include companies with 5-20, 21-50, 51-250 and 251-500 employees. The optimal allocation of companies was made based on revenue and employment heterogeneity in each of the strata. Where the heterogeneity was higher, a larger sample was formed and vice versa. The survey sample (gross sample) consisted of 546 companies from the machines and equipment sector.

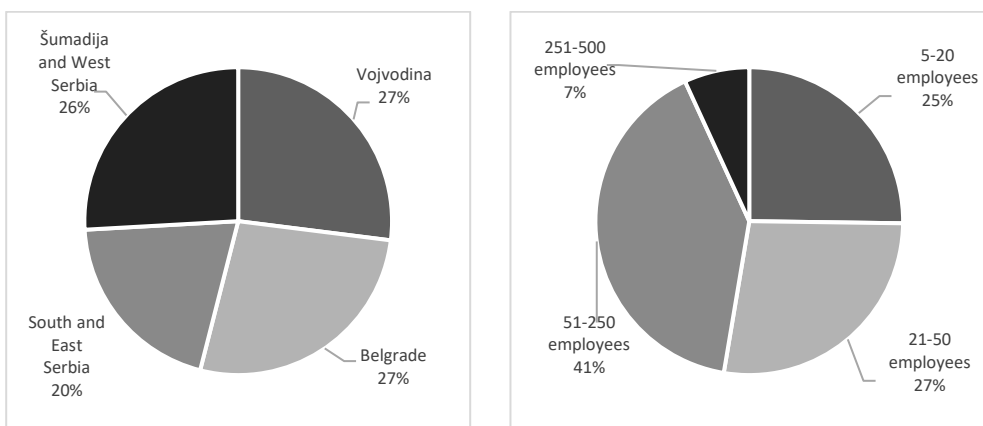
The number of companies surveyed consists of 452 (82.8% sample realization) companies from the machines and equipment sector. The time frame of the survey was set between June 20 and July 8, 2022. Table 1 presents the structure of the population, the survey sample (gross) and the final sample (net) according to the two-digit economic activities of NACE Rev. 2. Figure 1 shows the regional distribution of the final sample as well as the structure of the final sample according to company size measured by the number of employees.

Table 1: The size and structure of the population, gross sample and net sample

NACE 2-dig	Activity	Population	Gross sample	Net sample
22	Manufacture of rubber and plastic products	566	63	57
25	Manufacture of fabricated metal products	1215	191	165
26	Manufacture of computer, electronic and optical products	173	53	43
27	Manufacture of electrical equipment	168	37	34
28	Manufacture of Equipment & Machinery n.e.c.	393	95	77
29	Manufacture of motor vehicles, trailers and semi-trailers	99	34	21
30	Manufacture of other transport equipment	41	15	13
32	Other manufacturing	58	29	24
33	Repair and installation of Equipment & Machinery	137	29	18
Total	Equipment & Machines	2850	546	452

Source: Author's research

Figure 1: Regional distribution of the final sample and its structure according to company size measured by the number of employees



Source: Author's research

In accordance with the main objective of the paper, as well as the three research questions, the companies were divided into two groups: those that have women in senior management and those whose senior management consists exclusively of men.

To assess the level of ICT adoption, the companies surveyed were asked whether they use any of the following technologies: Cloud service, Enterprise Resource Planning (ERP) software, Customer Relationship Management (CRM) software or the Internet of Things (IoT). The variable for the use of ICT is between 0 and 4, depending on whether a company uses none, one or more of these technologies (0 – does not use any technology; 1 – uses one technology; 2 – uses two technologies; 3 – uses three technologies; 4 – uses four technologies).

The vision regarding the company's development over the next five years is rated on a scale of 1 to 5 (1 – Pessimistic - it would be good if our business survives; 2 – Conservative - it would be good if production does not decline; 3 – Neutral I have no vision, it is important to continue; 4 – Moderately optimistic - annual growth of around 5-10%; 5 – Ambitious - at least doubling sales - market share).

Gender equality practices were analyzed based on the percentage of female employees in a company and on whether a company has policies and/or procedures in place that promote gender equality. For this purpose, the companies were divided into two groups: companies that have enforced policies (procedures) that promote gender equality and companies that have no such policies or have policies that cover some but not all aspects, or policies that are not enforced (0 – do not have policies and/or procedures that promote gender equity; have policies that cover some, but not all aspects; have policies that are not enforced; 1 – have policies and/or procedures that promote gender equity).

The statistical analysis included descriptive statistics and non-parametric tests to compare the differences between the groups.

Results and Discussion

The companies were divided into two groups depending on whether they had women in senior management positions. Table 2 provides descriptive statistics for each of the two groups for variables such as ICT use, growth vision, gender equality policy and the percentage of female employees. The Shapiro-Wilk test for normality is significant ($p < 0.01$) for

each of the subsamples, indicating that the data is not normally distributed. Since the assumption of normality is necessary for parametric tests, the non-parametric Mann-Whitney test is used to determine whether there are differences between companies led by women and those led by men in terms of the use of ICT, growth vision and gender equality practices (gender equality policies and the percentage of female employees).

Table 2: Descriptive statistics with the Shapiro-Wilk test of normality

	Women among senior executives	N	Mean	Std. Deviation	Shapiro-Wilk	
					Statistic	Sig.
ICT adoption	No	142	0.68	0.86	0.76	0.00
	Yes	310	1.07	1.11	0.82	0.00
Growth vision	No	142	3.57	1.07	0.85	0.00
	Yes	310	3.92	0.87	0.78	0.00
Gender equality policies	No	142	0.36	0.48	0.61	0.00
	Yes	310	0.56	0.50	0.63	0.00
% of female employees	No	142	0.18	0.19	0.81	0.00
	Yes	310	0.27	0.22	0.85	0.00

The results are significant at the 0.01 level.

Source: Author's research

The Mann–Whitney test ranks the values of the entire sample in order from smallest to largest. It then compares the mean ranks for the two groups: Companies that have women in senior management and companies whose senior management consists exclusively of men (Table 3). The results of the test are significant ($p < 0.01$) for all four dependent variables (ICT adoption, growth vision, gender equality policies and the percentage of female employees) (Table 4).

Table 3: Ranks

	Women among senior executives	N	Mean Rank	Sum of Ranks
ICT adoption	No	142	195.71	27791.50
	Yes	310	240.60	74586.50
Growth vision	No	142	196.59	27916.00
	Yes	310	240.20	74462.00
Gender equality policies	No	142	195.67	27785.00
	Yes	310	240.62	74593.00
% of female employees	No	142	179.03	25422.50
	Yes	310	248.24	76955.50

Source: Author's research

Table 4: Mann-Whitney Test

	ICT adoption	Growth vision	Gender equality policies	% of female employees
Mann-Whitney U	17638.50	17763.00	17632.00	15269.50
Wilcoxon W	27791.50	27916.00	27785.00	25422.50
Z	-3.61	-3.63	-3.92	-5.23
Asymp. Sig. (2-tailed)	0.00	0.00	0.00	0.00

Grouping Variable: Women among senior executives

The results are significant at the 0.01 level.

Source: Author's research

Companies that have women in senior management use ICT to a greater extent ($M=1.07$) than companies whose senior management consists exclusively of men ($M=0.68$). These findings are in line with previous research on SMEs (Alam, Ali, Erdiaw-Kwasie, Murray & Wiesner, 2022), which emphasizes the importance of women in leadership positions for ICT adoption. The greater use of ICT in companies with women in leadership positions reflects the proactive approach observed in women-led SMEs. This consistency across sectors emphasizes the broader pattern of women in leadership positions playing a central role in steering companies toward advanced technological integration.

The female managers in the machines and equipment sector are more optimistic about the development of their company over the next five years

(M=3.92) than managers of companies run exclusively by men (M=3.57). The connection between gender diversity in leadership and a positive organizational outlook is in line with the notion that diverse perspectives contribute to more forward-thinking and growth-oriented visions.

Finally, our research results show that companies led by women have more female employees and better policies (procedures) that promote gender equality than companies led by men. Women-led companies have, on average, 27% female employees, and 56% of them have implemented policies (procedures) that promote gender equality. Companies run exclusively by men, on the other hand, have an average of 18% female employees and only 36% of them have implemented policies (procedures) to promote gender equality. Women entrepreneurs show their dedication to creating inclusive workplaces by having more female employees and introducing policies that promote gender equality in their companies. This aligns with broader discussions on the multifaceted impact of gender diversity, not only in promoting equality but also in creating environments conducive to the professional growth of women.

Drawing parallels with findings in different industries, the disparities in female employee percentages and gender equality policy implementation further underline the sector-specific nature of gender dynamics. Integrating this with broader literature emphasizes the need for industry-specific strategies to address gender imbalances and promote inclusivity effectively.

Conclusion

Bridging the gender gap in entrepreneurship is not only a matter of fairness, but also an economic imperative that can bring significant benefits to individuals, communities and entire nations. This paper emphasizes the central role of women in leadership positions and shows a positive correlation with the introduction of ICT, growth optimism, and the implementation of gender equality measures. The paper posits that having women in leadership positions in the machines and equipment sector positively influences technology adoption, growth perspectives, and gender-inclusive policies. Companies with women in management positions use ICT to a greater extent, which indicates a proactive approach to digitalization. Furthermore, the increased optimism about future development among female managers indicates a strong link between gender diversity and positive growth visions. This positivity is not limited to

expectations but is also underpinned by the presence of more female employees and robust policies to promote gender equality in women-led organizations.

Research results suggest that gender diversity in senior management goes beyond just addressing equity concerns; it has a tangible positive impact on organizational outcomes. The outcomes encompass improved decision-making processes, increased adaptability to technological advancements, and a more inclusive and vibrant workplace culture. These implications can serve as a basis for business leaders, policymakers and researchers to advocate for and implement initiatives that promote diversity, equality and technological advancement in the machines and equipment sector. Our findings suggest that measures to promote gender diversity in leadership should be prioritized to drive technological innovation and organizational growth. Policymakers can use these findings to develop targeted initiatives that incentivize companies to adopt gender-balanced hiring and promotion practices to foster a more diverse and resilient workforce. In addition, our study highlights the importance of investing in ICT training and skills development programs tailored to female entrepreneurs and employees so that they can effectively leverage digital technologies for business growth.

By looking specifically at the machines and equipment sector in Serbia, our research not only confirms the positive correlation between women in leadership positions and organizational outcomes, but also pioneers research on this topic in the Serbian context. The findings reveal that bridging the gender gap is an important factor for the growth and prosperity of companies.

As a new contribution to the literature on women entrepreneurship in Serbia, this study emphasizes the need for further research in other industries to comprehensively address gender inequalities. The positive results observed in the machines and equipment sector can potentially serve as a catalyst for broader initiatives to promote diversity, equality and technological advancement in different sectors. This broadening of horizons in the study of women entrepreneurship in Serbia opens avenues for future research and encourages scholars to explore the economic benefits of gender diversity in various industries, thereby fostering an inclusive and thriving business environment.

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