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Being a STEM woman in Kosovo

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Abstract. Although it is difficult to accept, even in this time of civilization that we live in, women across the world face various difficulties as individuals. Male dominance in most fields makes it impossible to avoid gender discrimination. Gender discrimination all over the world is a huge drawback for women in almost every field. This phenomenon is even more prominent in business life and especially in STEM fields (Science, Technology, Engineering, Mathematics). In this globalized world, Kosovar women may not be an exception. Therefore, this research aims to examine whether women who work or have worked in STEM fields in Kosovo experience discrimination. The result of the research, similar to results obtained in other studies is that women experience discrimination in different ways in their business lives.

Keywords: STEM, Women, Women in STEM, Workplace discrimination, Women at work, Women in business, Gender discrimination.

1 Introduction

Although it is not correct to generalize, discrimination in most parts of the world starts from childhood. Discrimination takes place when men are generally thought of as rational, unemotional, good at math; women are seen as emotional, irrational and fragile. The effects of this discrimination experienced by young individuals, especially women, may actually result to a wrong choice driven by thoughts and behaviors taught in their childhood, which may cause them to be confused with different problems in their business lives in the future. It may be that the problems or obstacles that women experience in their business lives, especially in STEM, are consequences of this wrong way of thinking. Ayrea, Millsa ve Gillb (2013) state that as a result of their studies, many female engineers had experienced being isolated, marginalized in the prevailing male culture of engineering jobs. Researchers have also noted that all had started the engineering profession believing strongly in themselves as engineers, despite the difficulties they had encountered. Clancy, Lee, Rodgers, & Richey, (2017) found that 40% of women in physics and astronomy experienced a hostile work environment, and approximately 18% of women of color and approximately 12% of white female professionals in these fields reported that they skipped professional activities because they felt themselves insecure. This situation is not different in the academic community. Riffle et al. (2013) found that although men and women are equally productive, women

report that their departments perceive them as less productive than they do men. Similarly, women believe that they have less influence than men in their departments and have less colleague solidarity. Women also experience more sexism and discrimination than men. Pedersen and Minnotte (2016), while controlling for rank and seniority, obtained higher job burnout in STEM faculty – particularly women – reporting less access to information needed to do their jobs and more interpersonal conflict.

2 The Study

2.1 Sampling and Data Collection

The sample of this research consists of women who have worked, are actively working and are actively looking for a job STEM in Kosovo. The research is online questionnaire-based. The questionnaire is formed as a result of the literature review. In the first part of the questionnaire, there are questions about demographic characteristics and in the other parts, there are questions about obstacles, difficulties, etc. that women experience in business life (in STEM). The sample of this study consists of 95 respondents. A questionnaire link was sent via Facebook, WhatsApp, and other social networks.

2.2 Data Analysis

In this research, participants' responses were analyzed on the basis of public and private sectors.

According to demographic characteristics of the participants, the majority is composed of the age group 25-31 (39%) and married women (57.9%). Additionally, most of the women do not have children (62.1%). Education level of the participants is as follows: 33.3% have an undergraduate degree, 57.1% have a Master's degree and 9.5% have a PhD.

According to STEM fields, 57.9% of the participants work in Technology, 19.0% in Engineering, 14.7% in Science and 8.4% in Mathematics. 81.0% of the participants have stated that they are actively working in STEM, while the other 19.0% stated that they had worked before or are now looking for a job in STEM. According to work experience, 14.7% of the participants have stated that they have less than 1 year of experience, 28.5% between 1-3 years, 28.5% between 4-6 years, 5.2% between 7-9 years, 9.5% between 10-12 years and 13.6% with 13 years or more of experience. Moreover, the majority (61.9%) stated that they work in the private sector (Table 1).

Table 1. Demographic characteristics of the participants

	f	%
Age		
18-24	23	24.2
25-31	37	39
32-38	23	24.2
39-45	0	0
46-52	9	9.5
53-59	0	0
60 and over	3	3.1
Marital status		
Single	55	57.9
Married	40	42.1
Number of children		
None	59	62.1
1-2	36	37.9
3 or more		0
Education level		
Bachelor	32	33.7
Master	55	57.9
PhD	8	8.4
STEM filed		
Technology	55	57.9
Engineering	18	19.0
Science	14	14.7
Mathematics	8	8.4
Employment status		
Actively working in STEM	77	81.0
Had worked before or are now looking for a job in STEM	18	19.0
Work experience		
Less than 1 year	14	14.7
1-3 years	27	28.5
4-6 years	27	28.5
7-9 years	5	5.2
10-12 years	9	9.5
13 years and more	13	13.6
Sector		
Public	36	38.1
Private	59	61.9

The obstacles and difficulties experienced by participants in business life are examined and compared on the basis of the sector (state-private). First, when participants shared their opinions whether there is gender discrimination in the workplace, 50% of the participants working in public institutions said yes, the other 50% sometimes, while in the private sector 53.8% of the participants said yes, 38.5% sometimes and 7.7% stated that there was no discrimination in the workplace (Fig 1.).

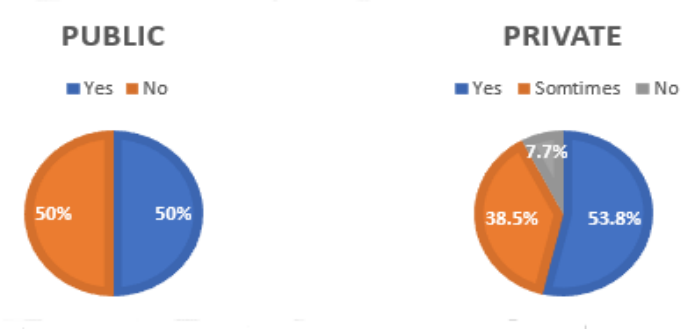

Fig 1. Opinions about gender discrimination in the workplace

When asked at what stage participants think gender discrimination is in the workplace, in state institutions; 12.5% stated that there is discrimination in labor distribution, 12.5% in professional advancement, 37.5% in employment, 25.0% in-service training programs and 12.5% at no stage. In the private sector; 42.2% stated that there was no discrimination in professional advancement, 11.3% stated that there is discrimination during employment, 19% in-service training programs, 11.3% in administrative responsibility, and 16.2% at no stage. Participants also added that their managers support the opinions of men more than those of women about developments in the workplace (Fig 2.).

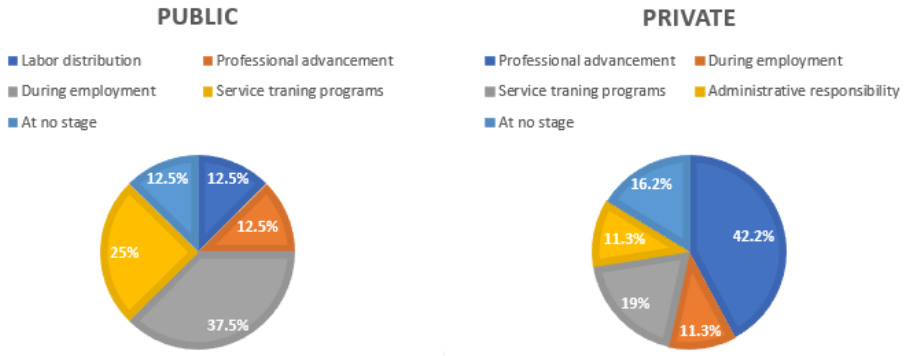

Fig 2. Participants' responses about the stage of gender discrimination in the workplace

When analyzed according to sectors (public-private), responses of participants to the question whether their managers support men's opinions more than women's in the workplace are as follows: 25.0% - 7.7% (public-private) strongly disagree, 25.0% - 46.2% disagree, 12.5% - 23.1% not sure, 25.0% - 7.7% agree, 12.5% - 15.3% strongly agree. When analyzed according to sectors (public-private), responses of participants to the question whether their male co-workers think that women's talents and skills are insufficient for STEM are as follows: 25.0% - 12.2% strongly disagree, 37.5% - 38.5% disagree, 12.5% - 7.1% not sure, 25.0% - 42.2% agree. When analyzed according to

sectors (public-private), responses of participants to the question whether women suffer from career development inequality are as follows:12.5% - 30.8% disagree, 25.0% - 15.3% not sure, 62.5% - 30.8% agree, and 23.1% of participants working in private sector stated that they strongly agree. Most of the participants agreed that female employees were not preferred for more qualified and relevant education in state institutions (62.5%), and on the contrary, most of the participants in private institutions did not agree (69.2%). When participants were asked that the field they work in is a field suitable only for men according to their male colleagues, most of the participants (62.5%) working in public institutions stated that they did not agree, while most of them (53.8%) in the private sector agreed. Difficulties faced by participants due to being a female employee at work on the basis of sector (public-private) are as follows (participants were given the opportunity to add different answers with more than one answer option); 50.0% - 69.2% prejudiced attitudes towards women, 62.5% - 38.5% confusion of priorities between professional and family roles, 12.5% - 38.5% difficulty communicating at work, 50.0% - 23.1% difficulties in working conditions, 7.7% there is no difficulty (private sector).

3 Conclusion and recommendations

Sexism experienced in business life, especially in STEM, can cause women to spend more effort than their male colleagues, and as a result, to be affected more both psychologically and physically. As a result of the research, it is obvious that this situation is similar in Kosovo as well. This study determined that working women experience discrimination both in public and private sectors. Participants working in the private sector think that there is more discrimination, albeit with a small margin, compared to participants working in the public sector. However, it is seen that this discrimination in the public sector is mostly at the stage of employment, and in the private sector, it is at the stage of professional progress.

Participants working in the private sector stated that they did not experience discrimination from their managers, while participants working in public sector both agreed and disagreed with equal results. As a result of the research, it is determined that most of the participants working in the private sector stated that their male colleagues thought that talents and skills of women were insufficient for STEM, while most of them did not agree with this in the public sector. Career development is one of the important issues, as a result of the research, it is concluded that most of the participants working in the public sector suffer from career development injustice, while participants working in the private sector both agree or disagree with equal results. It has been determined that discrimination in the public sector takes place in education and development of the employees, while the same is not true for the private sector. In addition, while male colleagues of the participants working in the private sector thought that the field they worked in was suitable only for men, it was determined that this was not the case in the public sector. Finally, this study states that cases where women face discrimination in the public sector can be summarized to be: confusion between professional and family roles, prejudiced attitudes towards women and difficulties in working conditions.

While in the private sector, women mostly face discrimination in the following situations: prejudiced attitudes towards women, confusion between professional and family roles and difficulty in communicating. As a result, in order to realize that success, whether in science or in business life, has no gender, first of all, institutions should clearly state this situation to themselves and their employees. In addition, as discrimination is a sensitive issue by its nature, institutions should correct/add any deficiencies in their policies regarding this issue and make female employees feel assured that they are with them if they experience such a situation. Results of the study cannot be generalized. It is limited to a small sample and the participants' emotional thoughts at specific moments.

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