Challenges and strategies of women in STEM. Gender balance - Albanian Case

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Abstract

The evolution of Information Technology (IT) has transformed and effects on interpersonal and societal communication paradigms. Although, the IT sector continues to exhibit a pronounced male-centric orientation, we can see the trend of an increase percentage of female participation within IT-oriented career trajectories. This study delves into the achieving gender equilibrium within the Albanian Information Technology (IT) sector. It conducts an analyse of the educational outcomes within Science, Technology, Engineering, and Mathematics (STEM) disciplines. It also study the challenges of women facing recent years in the advanced technology sector. The data are collected by INSTAT and analyzed with the porpose of finding the trend of increase or decrase of the women participant in STEAM over the last five years. Ref 1, 2

Challenges of Women in STEM

1. **Stereotypes and Bias**: Women often face stereotypes that suggest they are less capable in STEM fields. Gender bias can affect hiring, promotion, and recognition, creating barriers for women's career advancement.
2. **Lack of Representation**: The scarcity of female role models in STEM can discourage young girls from pursuing STEM careers. It can also lead to a lack of mentorship opportunities for women in these fields.
3. **Work-Life Balance**: Balancing demanding STEM careers with family and personal life can be challenging for women. The long hours and inflexible work schedules in some STEM roles can create obstacles.
4. **Unconscious Bias**: Implicit biases can lead to women receiving fewer opportunities, resources, and recognition. This can affect their confidence and self-esteem, impacting their performance in STEM.
5. **Harassment and Discrimination**: Women in STEM may face harassment and discrimination, which can lead to a hostile work environment and negatively impact their mental health and career prospects.
6. **Educational Gaps**: Historically, women have been discouraged or excluded from certain STEM fields. As a result, there are educational gaps that can make it difficult for women to break into these industries.
7. **Networking Challenges**: Men often dominate the networks in STEM fields, making it challenging for women to access critical opportunities and resources. Ref 3,5

Table 1

	% of graduates student on science, engeenering, production in Albania INSTAT 2023				
	2018	**2019**	**2020**	**2021**	**2022**
Female	46,60	48,10	44,70	42,90	44,80
Male	53,40	51,90	55,30	57,10	55,20

Table 2

	Students based on level of study INSTAT 2023					
		2018	**2019**	**2020**	**2021**	**2022**
Bachelor	**Male**	36.531	33.927	30.595	4.223	31.457
	Female	52.700	48.742	43.787	2.561	39.735
Master	**Male**	15.916	14.091	13.928	31.360	14.208
	Female	27.833	26.022	27.621	41.492	28.775
Doctorate	**Male**	734	844	789	14.525	96
	Female	1.131	1.296	1.228	29.159	123

Methods and Results

In this study is used descriptive statistics to analyze the challenges of women in STEM in Albania. Based on the data table from INSTAT on October 2023 we can see that the number of female students graduated on STEM had an increase form 2018 to 2019, but after the pandemic it resulted in a descending result.

Based on the level of study we can see that more number of students are female on the three level(Bachelor, Master and Doctorate) till 2020. In 2021 we have seen an increase of Males on Bachelor level, but in 2022 it seems that female has gain in increase again. This analyze evidence that in Albania there is no gap between the genders, this can be as a result of the education politics on females from the government but also as result of the culture in the last years. Ref 4

Conclusions

Concluding, the research proffers analyze aimed at dismantling entrenched societal stereotypes and bridging the extant gender divide. This multifaceted approach underscores the gravity of reshaping societal perceptions and underscores the pertinence of interventions for fostering an inclusive and balanced IT workforce. More oriented politics and strategies should be developed in Albania, creating the possibility of women in different zones to have the opportunity to study in STEM. More career consulting programs should be involved in the college program so students can be more clear about these fields. We should say that in Albania there is no big differences on gender equality in STEM, this differences can be more in rural zone but we don't have evidences for that.

References

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