

Enhancing Female Professional Security and Managerial Capacity-Building in Kenya: The Impact of Gender-Equal Participation

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Abstract

For Kenya to fully embrace the 4th Industrial Revolution (4IR) it is essential to promote an inclusive and tolerant workforce where both men and women have equal participation in Science, Technology, Engineering, and Mathematics (STEM) businesses. However, there is a lack of scholarly research on the impact of gender-equal STEM participation in Kenya, which has been attributed to a limited understanding of the country's development scarcity. To address this gap, this study aimed to investigate gender-equal initiatives that promote female professional security and managerial participation and their impact on the effectiveness of STEM businesses in embracing the 4IR. Using a transformative emancipatory research framework, the study surveyed 314 workers and 44 managers in the Kenyan FinTech and Agriculture STEM industries from August to November 2020. The findings revealed that gender-equal programs implemented organization-wide through a dedicated task force positively impacted female professional security and managerial development, resulting in increased competitiveness for the organization. Future studies should expand on these findings to assess how other industries in Kenya have implemented measures to enhance the working conditions for female employees and their preparedness for the 4IR.

Keywords: Gender-Equal Participation, Kenya, 4th industrial revolution (4IR), STEM-business

1. Introduction

African countries are currently lacking the necessary professional skills and educational systems to fully take advantage of the benefits of the 4IR (WEF, 2017). However, as the skills gap towards 4IR is bridged, many jobs are expected to emerge in skilled labor-intensive segments such as automated agriculture and FinTech industries (Postelnicu & Câlea, 2019; Wilson & Okraku-Yirenkyi, 2019). Unfortunately, in Africa, the growth of STEM companies is low due to insufficient skilled people, particularly women (McCowan et al., 2018). Throughout history, gender disparities within the realm of professional security have disrupted the intellectual growth of STEM industries. Women have often encountered experiences that differ significantly from those of their male counterparts. They have frequently found themselves subjected to various forms of mistreatment, such as harassment (Branscombe, 1998), gender-based attacks (Berdhal, 2007), and bias in workplaces predominantly managed by men (Welle & Heilman, 2005). A study conducted in Kenya in 2015 revealed that 90 percent of women in the agribusiness sector rated sexual violence and harassment as the most formidable challenges they faced at work (Jacobs et al., 2015). As of 2018, the state of professional security had shown little improvement across various sectors of society, including the FinTech industry, which continued to grapple with issues of sexual harassment (Henry & Adams, 2018; Kiplagat et al., 2018). Instances of inadequate professional security in both agribusiness and FinTech sectors have been documented in recent years. However, there is a dearth of research conducted after the implementation of gender equality programs within these industries. Gender-equal participation is crucial in creating a positive working environment and increasing company competitiveness in STEM businesses.

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More research is needed on how the integration of gender-equal participation in Kenyan Agri- and FinTech businesses affects professional security and the development of female managerial capacity building to develop the country's STEM-business competence in these industries. Marston (2014) notes that businesses with women in managerial posts, such as sitting on the company's board, have exceeded companies with no women directors. According to Shoma (2019), the gender gap affects not only women but also the performance of the national economy as a whole. Therefore, this study aims to investigate the impact of gender equality initiatives on the professional security of women and their participation in managerial roles within Kenya's STEM industries. The study examines whether women in gender parity STEM FinTech- and Agribusiness in Kenya appreciate the professional security conditions and whether they see gender-equal initiatives as encouraging female managerial participation and work effectiveness.

It's encouraging to see that the gender-equal opportunity program is making strides in creating a safer and more supportive professional environment for women, particularly in an industry where professional security for women has historically been scarce (Jacobs et al., 2015). The successful implementation of gender-equal programs in Kenya's STEM industries would create professional security for women and increase the capacity of female professional integration in the organization to support and foster female managerial development, ultimately bridging the professional skills gap in Kenya. The study utilizes interviews to measure the relationship between the independent variable of gender parity integration and the dependent variable of professional security and female managerial capacity development.

2. Literature Review

Many Sub-Saharan African countries are facing a difficult transition to meet the demands of the Fourth Industrial Revolution (4IR), which requires innovation and development in STEM-based industries (Kaiser & Barstow, 2022). However, education on the needs of 4IR is lacking in many industries, and a significant portion of industrial technology needs to be upgraded or refurbished (Sackey et al., 2017; Mathew & Pretorius, 2017). Furthermore, many African market stakeholders do not have business models that account for the role of women in the development of 4IR and its impact on the economic state of African countries today (Liu, 2022).

Involving women in STEM positions can open up new job opportunities and improve the capacity of employees and companies, and FinTech can serve as a stepping stone to embracing the possibilities of 4IR structural transformation and opening up the digital marketplace of Africa (Asli et al., 2018). FinTech solutions that offer financial services can transform the entire commercial service sector and promote financial inclusion, especially for women, who may have limited access to financial infrastructure (Ezzahid & Elouaourti, 2021; Qureshi & Johnson, 2021).

Kenya has demonstrated potential for business development in Agri- and FinTech industries (Schelle & Pokorny, 2021; Waqar & Ramanathan, 2021), as exemplified by the launch of M-Pesa in 2007, a mobile phone-based money transfer, financing, and microfinancing service that has provided formal financial systems for people in rural and urban areas, particularly women (Nalubega & Uwizeyimana, 2019). Mobile financial technology has also been adopted to assist Kenyan farmers (Mpofu & Athenia, 2022). However, issues of gender inequality and professional security for women persist in workplaces in both Agri- and FinTech businesses (Henry & Adams, 2018; Kiplagat et al., 2018). Therefore, it is crucial to cultivate competent human resources and promote STEM labor skills, including women, in the Agri- and FinTech industries. With a skilled labor market, Kenya can fully realize the potential of 4IR to create more job opportunities and boost productivity in these primary industries (Bergman et al., 2021; Nhleko & van der Westhuizen, 2022). To achieve this, it is necessary to engage the entire labor market capacity and extend the progress of skilled capacity building in STEM.

3. Objective and Methodology

This case study aimed to explore how gender-equal participation programs in STEM FinTech and Agribusiness companies have impacted female employees' professional security and managerial development. The study's population comprised 358 women working in three STEM-based companies in Kenya, all of which had implemented gender programs to promote equality between men and women. The research followed a qualitative methodology and was conducted from August to November 2020, with 314 female STEM workers completing a multi-choice online survey and 44 female managers participating in individual qualitative questionnaires. Among the participants were 17 female managers from Safaricom, a leading Kenyan FinTech company with a gender-equal participation program, and 27 female managers from the Kenya Ministry of Agriculture, Livestock and Fisheries working under the SIDA (Swedish International Development Cooperation Agency) program with a similar program in place.

To gain a comprehensive understanding of the situation, the study employed convergent qualitative methods, which included both filled-out surveys and focus group discussions. The survey questions sought to obtain a wide-ranging perspective from employees on how they perceived the gender-equal program and its effects on working conditions in the organization. Key informants, including 8 managers, were selected for interviews using the snowball selection method and focus group discussions. Qualitative data from the surveys and interviews were analyzed separately using descriptive content analysis techniques (Miles & Huberman, 1994). This method allowed for a deeper understanding of the situation.

4. Results and Analysis

4.1. Gender-Equal Program in Safaricom

Safaricom is taking proactive steps to address the underrepresentation of women in senior positions within the technology industry. The recognition of the issue starting at the tertiary level of education is a crucial aspect of tackling this gender imbalance. By running Women in Technology (WIT) programs, Safaricom is actively working to bridge the gender gap in technology-related fields (Safaricom, 2022). These programs likely aim to encourage more women to pursue careers in technology by providing them with the necessary support, mentorship, and resources. The study has provided valuable insights into the impact of the gender-equal opportunity program on female workers and managers, and their perception of a safe work environment free from harassment. The results indicate that 86.5% of female employees are content or very content with their current employment, while one in seven female employees are not satisfied or completely dissatisfied. The findings of the study also revealed that within the gender-equal opportunity program at Safaricom, the majority of female employees, 94.4%, perceive their workplace as safe and secure, while a small percentage of about 5.6% feel somewhat or very unsafe. As shown in Table 1, a significant majority of 96.6% of participants reported that the gender-equal opportunity program has had a positive impact on the effectiveness of work, suggesting that the program fosters an intellectual and professional environment conducive to female managerial development. All respondents expressed positive feedback for Safaricom's gender-equal opportunity program, deeming it a good or very good initiative.

Table 1 Safaricom's Gender-Equal Participation Program Responses

Response (%)	Strongly Disagree	Disagree	Agree	Strongly Agree
<u>Employee Responses (N:89)</u>				
Happy with current employment	2.3	11.2	47.2	39.3
Work in an environment safe from harassment	1.1	4.5	31.5	62.9
Impact of Gender-Equal Participation Program on Work Effectiveness	1.2	2.2	49.4	47.2
Gender-Equal Participation Program Being a Good Initiative			30.3	69.7
<u>Management Responses (N:17)</u>				
Happy with current employment			47.1	52.9
Work in an environment safe from harassment			29.4	70.6
Impact of Gender-Equal Participation Program on Work Effectiveness			52.9	47.1
Gender-Equal Participation Program Being a Good Initiative			17.6	82.4

4.2. Safaricom Managers' Responses on Gender-Equal Participation

All Safaricom managers who participated in the gender-equal opportunity program reported being either happy or very happy with their employment. The majority of Safaricom managers (over 70%) feel very safe from harassment in their workplace, while the remaining 30% feel fairly safe from harassment.

In terms of the gender program's impact on work effectiveness, more than half of the respondents (52.9%) believe that it makes work very effective, and the remaining 47.1% state that it makes work fairly effective. None of the managers feel that the gender program makes work ineffective. All managers involved in Safaricom's gender-equal opportunity program view it as a positive initiative, with 82.4% rating it as very good. It is clear that the gender-equal opportunity program at Safaricom is seen as a positive initiative by the managers involved. They believe that the program creates growth and stability for the company by giving women more opportunities for career growth and professional development. The program also allows for diversity in decision-making, which is seen as a positive factor in driving the company's performance.

4.3. SIDA Agricultural Workers' Responses on Gender-Equal Participation Program

Table 2 shows 88.5% of female employees at the company are happy or very happy in their current employment. It's also important to note that the question about happiness was intended to lead to the topic of harassment in the workplace, which can have a significant impact on employees' happiness and well-being.

Table 2 SIDA Agricultural Gender-Equal Participation Program Responses

Response (%)	Strongly Disagree	Disagree	Agree	Strongly Agree
Employee Responses (N:225)				
Happy with current employment	1.7	9.8	71.6	16.9
Work in an environment safe from harassment	0.5	4.9	50.2	44.4
Impact of Gender-Equal Participation Program on Work Effectiveness	0.9	5.8	56.4	36.9
Gender-Equal Participation Program Being a Good Initiative	1.3	4.9	54.7	39.1
Management Responses (N:27)				
Happy with current employment		3.7	85.2	11.1
Work in an environment safe from harassment		3.7	55.6	40.7
Impact of Gender-Equal Participation Program on Work Effectiveness		3.7	74.1	22.2
Gender-Equal Participation Program Being a Good Initiative		3.7	55.6	40.7

It's encouraging to see that the gender-equal opportunity program is making strides in creating a safer and more supportive professional environment for women, particularly in an industry where professional security for women has historically been scarce. 94.6% of women involved in the SIDA agricultural gender-equal opportunity program feel that their workplace is safe, with only 5.4% feeling somewhat or very unsafe. This indicates that the program has positively impacted the perception of professional safety in the working environment for female employees. The responses indicate that 96.3% of the participants believe that the gender program is making work either fairly or very effective. This suggests that the program is creating an intellectual and professional environment supporting female managers' development 93.8% of respondents regarded the SIDA agricultural gender-equal opportunity program as a fairly or very good initiative, while only 4.9% had a negative opinion of the program.

4.4. SIDA Managers' Responses on Gender-Equal Participation Program

Based on the responses of SIDA agricultural gender-equal opportunity program managers, 96.3% of them reported being happy or very happy with their employment, while 3.7% stated that they were not happy with the program. More than 40% of the SIDA managers had felt very safe from harassment in their professional environment, while around 56% reported they had a fairly safe working environment.

As for the impact of the SIDA gender program on work effectiveness, 22.2% of managers believed it makes work very effective, while 74.1% stated that it makes work fairly effective. Regarding the program's overall effectiveness, 40.7% of the managers describe it as very good, and 55.6% as fairly good.

The majority of manager participants stated that the program encourages and supports women in ascending to leadership positions. They mentioned being provided with courses and insights through programs like "Women in Leadership," which enhance their capacity and positively influence their career growth. The gender-equal program was described as aligned with organizational goals and seen as a positive influence. However, it is worth noting that three managers raised concerns about significant flaws in their organizations. They expressed that the lack of clear policies, including gender considerations, has resulted in a higher number of promotions for males. These managers emphasized the importance of adequate focus on fully implementing the gender-equal program to create an attractive working environment for staff.

According to some managers, the organization strongly emphasizes gender inclusivity at all levels, providing women with opportunities to secure positions. They mentioned that this approach fosters healthy competition between men and women for available opportunities. Although the current staff composition may still be male-dominated, primarily due to the field-oriented nature of training and work, the organization's open policy on equal employment opportunities for both genders has created a highly competitive environment.

4.5. Managerial Capacity and Skills Advancement

In order to enhance our comprehension of the apparent variations in feedback within the SIDA Agricultural Gender-Equal Opportunity Program, we explored a subsequent method employing a Snowball selection technique. This investigation aimed to provide a more comprehensive and dynamic understanding of the disparities in responses, particularly among female managers, concerning their progress in managerial capacity and skills development. As a result, we discovered a distinct dichotomy between highly positive and negative feedback from female managers participating in the program. To delve deeper, we divided the eight female managers in the SIDA Agricultural Gender-Equal Opportunity Program into two groups, each consisting of four managers. All managers reported a positive experience in one group, while in the second group, all managers expressed a negative experience.

Managers who had negative experiences conveyed female managers faced limitations in their participation in board meetings designated for agricultural specialists. Additionally, those managers with negative impressions provided further instances where competent and academically proficient female managers were not promoted to higher positions, despite fulfilling the requirements. Instead, those positions were ultimately given to male counterparts. Among managers with negative experiences, there was a prevailing response that implementing the gender program in their institutions either failed to be effective as so exhibited negative responses toward female managers. This negative perception is attributed to male dominance in these workplaces and a lack of awareness and sensitivity from top management toward the implementation of the gender-equal program.

Managers who had positive experiences emphasized the crucial importance of raising awareness about the role of women in this field, starting from school and even during a child's upbringing, including primary education. They stressed the necessity of adequate funding to support gender and social inclusion programs in primary schools. They believe that these inclusive programs should involve girls, who make up 50% of the population, especially considering that advancements in technology are making the agricultural sector increasingly appealing to the younger generation. In fact, by 2040, youth will represent over 50% of the population in Africa. Similar to managers who had negative experiences, those with positive experiences do not view the implementation of affirmative action, such as quotas for female managers in the workplace, as a viable solution. They argue that this approach can result in the promotion of less qualified managers and further worsen the situation for deserving women. Instead, the Gender-Equal Opportunity Program should focus on creating a level playing field where merit and equal opportunities are prioritized.

5. Conclusion

According to respondents in qualitative managerial interviews, the Gender-Equal Participation Program has proven to be effective in promoting professional security for workers and managers in both Safaricom and the SIDA program when it is well implemented. The qualitative feedback suggests that the program positively impacts professional development for both workers and managers, and it also enhances the organization's competitiveness. The program is seen as bridging the professional skills gap, particularly in STEM businesses embracing the Fourth Industrial Revolution in Kenya, leading to growth, stability, and career opportunities for women.

While the respondents in the study express a similar positive impression of the program in Safaricom and the SIDA program, there is a noticeable difference in the level of enthusiasm. In Safaricom, the impression is very strong, with all respondents considering the program to be a good initiative, and the majority expressing it as very good.

In the SIDA program, the positive impression is still present, but to a lesser extent, with fewer respondents rating it as very good. Additionally, a small percentage of SIDA workers had negative views of the program. The contrast between the two programs becomes more apparent when examining the managers' responses. In Safaricom, all managers reported being happy with their jobs, feeling safe, and viewing the gender equality program as an effective and positive initiative. The success of Safaricom can be attributed to its thorough implementation of the program throughout the organization, with strong support from top management. On the other hand, some participants in the SIDA program reported contrasting results, which can be attributed to the program's incomplete and limited implementation in parts of the organizations, leading to a lack of impact.

While there is a difference in satisfaction levels between workers and managers, both groups generally view the program positively. The interviews with SIDA managers emphasized the significance of empowering women themselves for the successful implementation of the gender-equal participation program. According to the study, establishing an environment conducive to Kenya's present and future work landscape requires the adoption of a gender-equal strategy and a firm commitment from private companies. The findings suggest that such an implementation would involve investing in the enhancement of companies' skills both in the short and long term. The study further suggests that compared to previous working environments, the gender-equal participation program improves professional security, efficiency, managerial development, and the competitive capacity of companies. Implementing the program correctly across the national industry could have profound implications for the Kenyan market economy and society.

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