



IDENTIFYING PEOPLE'S REACTIONS DURING THE 2022 INTERNATIONAL WOMEN'S DAY ON TWITTER: SENTIMENTS ANALYSIS THROUGH HASHTAGS

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Abstract: This paper presents research results on people's reactions during the 2022 International Women's Day on Twitter as an electronic platform for amplifying women's voices. We coded and analysed the most common themes from unstructured tweet textual data using MAXQDA2022. The analysis was based on the global slogan used to celebrate Women's Day in 2022 - "Gender equality today for a sustainable tomorrow #IWD2022". More than 5,000 tweet and retweet postings comprising 2022 International Women's Day peoples' sentiments, opinions, and comments were examined using a content analysis approach. Six themes — surveillance, prevention, treatments, testing and cure, symptoms and transmission, fear, and financial loss — were identified as critical issues during the 2022 International Women's Day. Most of the 676 Women's Day-related tweets gathered advocated breaking the bias. The overall percentage of sentiments regarding the 676 IWD in Tanzania was positive by 44.9%, negative by 1.1%, and neutral by 18.5%. The results suggest that the IWD would remain the annual apolitical form if no steps are taken to address women's issues. People's sentiments acknowledged that more awareness should be raised regarding International Women's Day and its festivities. Additionally, it is important to challenge the stereotypes and gender roles that are still prevalent in many places.

Keywords: *2022 international women's day, Twitter, sentiment analysis, hashtags, reactions.*

1.0 Introduction

1.1 The Essence of International Women's Day

The present research aims to answer the question, "how do Twitter users' sentiments describe their reactions during the International Women's Day 2022 event?". International Women's Day (IWD2022) is conventionally celebrated on 8 March every year (United Nations, 2022). During the IWD2022, the world joined handily to commemorate the day and recognize the outstanding accomplishments of women around the globe. The event recognized women's achievements and aimed work to #Breakthebias that still exists in



various places. IWD2022 theme was “Choose to Challenge.” This theme was meant to promote the idea of challenging gender bias and inequality in many countries. It is important to recognize that while there have been great strides in the fight for gender equality, there is still much work to be done.

Traditionally, IWD is a day in which women from around the world join in thoughts, prayers, struggles, hopes, and dreams, in addition to thanking those who have made our world a better and stronger place through educational, business, scientific, artistic, medical, public service, and athletic achievements. Hence, the IWD brings people together to recognize women and girls’ achievements and calls for further action to close gender gaps – in pay, work, education, and other life opportunities. In her book, Cote (1984) notes that the women’s movement began in May 1908 when 15,000 women met at the Garrick Theatre in Chicago to demand political and economic equality for all women. These women denounced the oppression and exploitation of women and demanded women be given the right to vote. In 1909, the first National Woman’s Day was held in the United States on February 28 in homage to the 1908 garment workers’ strike in New York. It was a day dedicated to women’s suffrage, and the press called it “women’s suffrage.”

During the Copenhagen international socialist meeting held in 1910, Luise proposed that Women’s Day become an annual event (Kaplan, 1985). This idea was seconded by Clara Zetkin, whereby 100 women from 17 countries collectively agreed with her proposal, even though no date was decided (Kaplan, 1985). Building on such acceptance, Luise, on 28 August 1910, proposed in a German newspaper article that the general theme of the struggle should be women’s suffrage. Kaplan (1985) reports that about 300 women’s rallies advocated by men and socialist delegates in the Austro-Hungarian empire were witnessed. The 1911 fire at the Triangle shirtwaist factory in New York killed about 147 workers, most of whom were immigrants (Kaplan, 1985).

Scholars have demonstrated that media have played an important role in unfolding women’s concerns, particularly gender-based violence (Carter, 1998), and speaking out about their social, cultural, and political concerns (Serisier, 2018). Ranging from newspapers, radio, television, and blogs, Twitter remains to be a powerful microblogging social media site (José van Dijck, 2012) to exchange information quickly and directly about women’s social, cultural, economic, and political concerns, such as gender-based and domestic violence during the IWD2022 event.

The gender-based and domestic violence has affected at least one in three women worldwide at different levels and at some point, in their lives (Shaheen et al., 2020). The sentiments portrayed annually through IWD do show the women’s ongoing fight against GBV and other domestic violence - ‘gender equality today for a sustainable tomorrow; she



has got the power to transform the generation (#ShesGotThePower), women's rights are human rights, women rise for all; and

“Act Now, If Not Us Who, If Not Now Then When?”. GBV and domestic violence remain serious public health concerns influenced by several psycho-socioeconomic factors (Schmidt and Willis, 2007). According to Schmidt and Willis (2007), “psycho-socioeconomic” refers to the fusion of psychological, sociological, and economic elements affecting a person's immediate surroundings. Studies, for example, Partners for Prevention 2013, McCleary-Sills et al. 2013, and Plan International 2012, show that less than 40% of GBV and domestic violence victims seek assistance, despite numerous helplines, NGOs, and shelters.

The IWD2022 information available publicly on Twitter was used in this study to analyse people's reactions and concerns via their sentiments as they emerged during the IWD2022 celebration in Tanzania. The primary goal was to establish the contribution of Twitter in celebrating women's achievements, raising awareness about women's equality, and lobbying for accelerated gender parity. The IWD2022 campaign theme was “Gender equality today for a sustainable tomorrow.” IWD2022 aimed to recognize and celebrate the women's and girls' contributions worldwide based on their responsibility for adapting, mitigating, and responding to global climate change to build a more sustainable future for all.

Generally, the IWD2022 highlighted the importance of challenging biases and misconceptions to create a more inclusive and gender-equal world. Hence, Twitter was selected as the ideal platform to address such issues in the IWD2022 celebrations. The literature shows that five years after its launch in 2006, Twitter became a sensation, gaining almost 180 million active monthly users around the globe (José van Dijck (2012).

Indeed, the proliferation of technological innovations has facilitated various groups to be online and share their feelings and concerns. The establishment of Twitter has accordingly created a forum where users may voice their thoughts. Thanks to these new technologies, it is now conceivable to conduct research on the opinions expressed or identify the crucial elements that are of particular interest to a given cluster of the global community, all of which benefit both users and the institutions as they offer agenda of actions in response to these issues.

Theoretically, an increase in hashtag activism – the activism that focuses on the use of a defined hashtag) social media to identify one's message or participation in a campaign has augmented spaces for different social groups to mobilize people to become aware of a particular cause . Today, social media, particularly Twitter, has empowered women to create thematic campaigns online, whereas millions worldwide participate annually.



Hashtags are usually written with a preceding hash (or strike) symbol, e.g., #BreaktheBias (the hashtag theme for International Women’s Day 2022). The hashtag clicking lists other posts that have used the same hashtag in their content. Hashtag filtering, on the other hand, allows participants to listen to a discourse on a specific topic or issue. Hashtags are not determined in advance; thus, anyone can generate a hashtag for whatever reason and deploy it on Twitter for a particular use. Some hashtags are used to demonstrate solidarity, and they seek to unite people worldwide against a perceived common enemy.

Hashtag activism helps to increase awareness and create an avenue for continued engagement which is significant for any cause like women and children’s domestic abuse. Therefore, it can be contended that hashtag remains to be a vital symbol that makes people gather (as a social movement) behind it as an alternative way of throwing their sentiments out there – providing a chance for their arguments to be interpreted as part of a more extensive dialogue through social movement in Twitter. It is through this movement; the hashtag then becomes a symbol of empowerment, whereas any such social movement emerging and taking place through social media is referred to as digital activism (Gill & Orgad, 2018; Mendes & Ringrose, 2019) or cyberactivism (Carty & Barron, 2019). Some scholars, such as Xiong et al. (2019), consider social-based movement as hashtag activism because it uses hashtags to blow out information and actions.

Subsequently, the key objective of this exploratory study was to find out the public reactions and concerns during the 2022 International Women’s Day on Twitter, particularly the reasoning as to why gender-based violence against women and children is still on the rise. So far, there has been little discussion about women’s digital activism and the public’s feedback regarding the IWD2022. A widespread hashtag shared across global Twitter users was #BreaktheBias.

The study concentrated on the contents and patterns of concerns and reactions in the IWD2022 hashtag/digital movement. It aimed to dig more into the public’s sentiments on the information shared in the #BreaktheBias campaign. Due to its straightforward and simple-to-follow ethical procedure in data use for research, the study restricted its scope to only the Twitter platform. Based on its policy, Twitter typically permits Application Programming Interface (API) users to gather public data or information that users choose to post publicly. In other words, the study relied on collected tweets posted publicly by users who accepted Twitter’s fair use policy statement (<https://help.twitter.com/en/rules-and-policies/fair-use-policy>) and who acknowledged that Twitter is a public platform where anybody may access and search tweets instantaneously.

Twitter was selected due to its merit of having immediately searchable and viewable



information by anyone worldwide. Twitter also has the benefit of limiting people to 280 characters, which allows for a more focused critique. Although using Twitter as research data does not pose a significant privacy risk, some have highlighted concerns about the general expectation of anonymity among Twitter users (Williams et al., 2017). As a result, data collection in this study started by employing a standard reporting approach. In contrast, the summarization of tweet contents (sentiments analysis) was done rather than reproducing the direct quotes of the tweets.

IWD2022 hashtag #Breakthebias inspired people worldwide to challenge and overcome gender bias. People from all walks of life joined in the global celebration, sharing their inspiring stories and encouraging others to help make a difference. The hashtag was used in posts worldwide, with many people expressing their support for the day and its mission. Celebrities, activists, and other influencers shared inspiring messages about the power of women and the importance of challenging and overcoming gender bias. Many spoke of their experiences with gender bias and how they could break through it.

The hashtag was also used to support organizations that help women in need and encourage donations. Additionally, many companies and brands used the hashtag to announce the launch of new initiatives to support women in their communities. Overall, the response to the hashtag was overwhelmingly positive. People were inspired to make a difference and to help create a more equal and just society. The hashtag on social media had hundreds of thousands of posts and engagements, with many people sharing their stories and experiences. The message of #Breakthebias reverberated with people from all spheres of life, inspiring them to take action and challenge gender bias in their lives and communities.

From peoples' reactions through inspiring messages to donations and new initiatives, IWD2022 was a powerful reminder of the importance of challenging and overcoming gender bias. In many societies, people are still positive to change, particularly concerning gender stereotypes; this attitude continues to pose traumatic experiences among women in many places. IWD2022 chose the Twitter platform to address women's voices regarding gender bias. Nevertheless, a main thematic question remains unanswered: What were the people's reactions during the IWD2022? This study attempts to answer this question through Twitter sentiment analysis.

2.0 Methodology

The study examined how IWD2022 tweets may become a significant social movement to raise awareness (Pew Research Center, 2019; Manikonda et al., 2018) and encourage actions against gender-based violence among women and children in Tanzania. Using MAXQDA2022 and Twitter API, tweets were retrieved using the



hashtag #IWD2022, whereas all hashtags associated with this main tag (e.g., #BreaktheBias) were also retrieved. Initially, the sample included 1,248 tweets and retweets. Still, after removing retweets and tweets that did not have interpretable content and those which did not involve IWD2022 content (i.e., not closely related to the research question), the final sample was reduced to 676. The public's concerns and reactions were retrieved based on whether their tweets focused on the following hashtags: IWD2022, BreakTheBias, breakthebias2022, IWDCOnnect, and IWD, InternationalWomensDay2022. Only tweets that met these hashtags were included in the final sample. Retweets were detached because they were considered duplicate contents that would not enrich the findings (Palomino et al., 2016). In the final selected sample (Figure 2), most of the tweets came from the MISA TANZANIA (55.3%), with few tweets from Amriya Issa Yahya (2.1%), Dar es Salaam Merchant Group (2.1%), Feed the Future (2.1%) and United Nations TZ (2.1%).

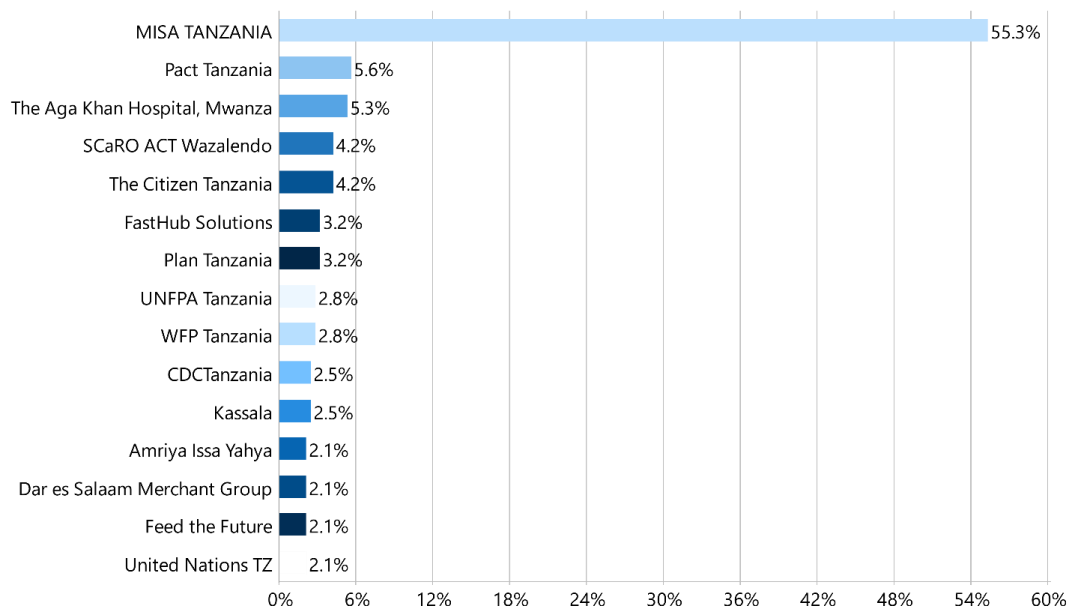


Figure 1 – The extracted sample from the Tweets (Source: Author)

The analysis of the tweets established that several people had different feelings and sentiments on current issues facing women globally. For example, Mayna Patel (Senior Associate, Architects of Diversity)¹ argues that "... women worldwide undergo mental trauma of abuse," and the IWD2022 was an exciting day of sharing such traumatic experiences. During the IWD2022, women used Twitter hashtags to open up about their struggles, like emotional distress, rights to education after giving birth, health issues, and gender-based violence. Furthermore, women expressed a sense of powerlessness and

¹ Narration during the IWD2022 by Mayna Patel, Senior Associate, Architects of Diversity. Accessed on 9/03/2022 from: <https://www.bfm.my/podcast/bigger-picture/health-and-living/iwd-2022-surviving-the-mental-trauma-of-abuse>.



difficulties; and how these issues can be challenging to women. It was a day of solidarity and support and showed the strength of women in unifying to bring light to the issues that matter and need to be addressed.

2.1 Data Analysis

Thematic analysis was used in this study. IWD2022 focused on various themes intended to raise awareness and celebrate the rights and achievements of women worldwide. These themes included creating a gender-equal world, amplifying women's voices, advocating for better working conditions, and recognizing the unique contributions of women in all aspects of society. Additionally, the day honoured the memory of those who fought for gender equality and acknowledged the contribution made in recent years. Through these themes, IWD2022 strived to create a better future for women everywhere.

All retrieved Twitter data were imported into MAXQDA and were evaluated according to several criteria, including word frequency, hashtags, authors, and sentiments. Thematic analysis is beneficial for identifying patterns in qualitative data, primarily when the research aims to extract the experiences and meanings of the participants. In other words, thematic analysis is a "realist method" (Braun & Clarke, 2006) that helps reflect the reality of Twitter users, mainly how they make meaning of their experiences and interpret such experiences. Thematic analysis was utilized in developing coding categories, whereas all identified themes were documented based on the frequency of the codes used to code the tweets.

In this study, thematic analysis aimed to understand how the public expressed their concerns and reactions to the hashtags and emerging issues during the IWD2022. This study, therefore, executed 100 keywords to identify, among others, the hashtags, reactions, slogans, and other vital issues surrounding the selected IWD2022 using the MAXQDA word cloud (Figure 2). In contrast, all frequently identified words are comparatively more significant in visibility.



The #iwd2022 and #BreaktheBias hashtags were the recurring themes across all tweets (n = 676) during the celebration of IWD2022 in Tanzania. It was noted that the frequently tweeted hashtag was iwd2022 (28%), followed by the #breakthebias (22.4%). Others were #iwd (11.4%) and #tanzania (8.1%). More information on the tweeted hashtags with their percentages is presented in Figure 3. The implication represented by women’s hashtags is best summarized through sentiment analysis.

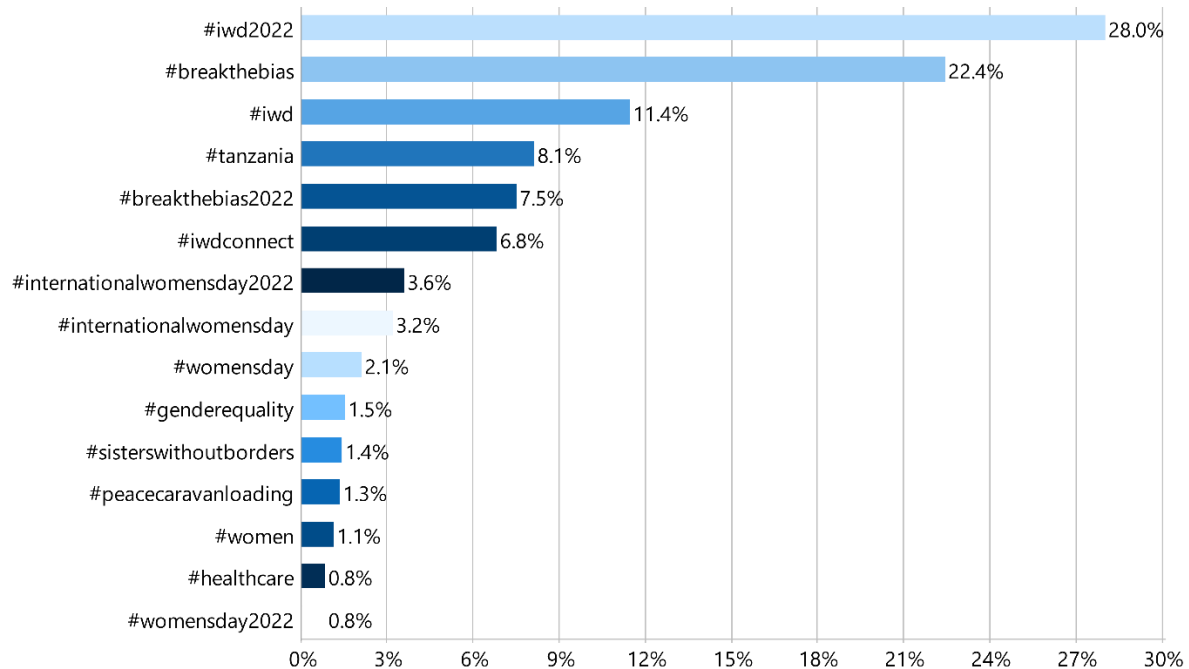


Figure 3 – Emerging hashtags during International Women’s Day 2022 in Tanzania (Source: Author)

3.2 Sentiments Extraction

The study used a psycholinguistic lexicon to characterize and compare the concerns and reactions expressed on the Twitter platform during the IWD2022. The Twitter users’ emotional behaviours were identified to acquire the research data: emotionality focused on whether the public reacted in a positive, slightly positive, neutral, negative, or slightly negative way towards the emerging issues during the IWD2022, as represented by the tweets and hashtags. The results concerning the public’s reactions and concerns through Twitter sentiment analysis show that 44.9% were positive, 33.1% slightly positive, 18.5% neutral, 2.2% slightly negative, and 1.1% negative towards the women’s voices expressed through hashtags and tweets. This might be due to the public’s awareness of women’s concerns about various issues related to gender-based violence, equality, and leadership positions. Sentiment analysis indicates that the public was very positive (44.9%) about women’s voices during the IWD2022. Considering the Twitter platform exclusively, the



ratio of positive to negative posts on the IWD2022 hashtags showcases the presence of positivity toward women’s concerns (Figure 4).

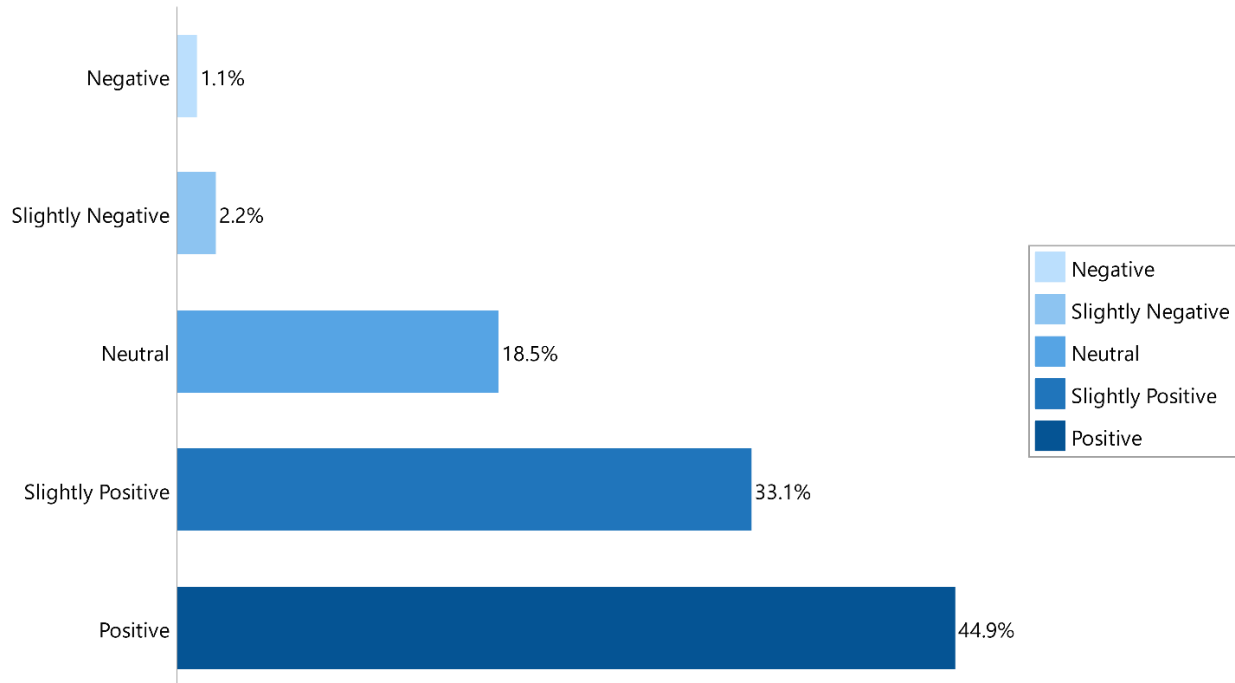


Figure 4 – Twitter sentiments analysis (Source: Author).

4.0 Discussion

The findings from this research indicate that when women share their voices and concerns on social media, particularly on Twitter, they also unveil their traumatic experiences. The study aimed to establish how the public expressed their concerns and reactions to the hashtags and emerging issues during the IWD2022. As indicated in Figure 2, women during International Women’s Day in 2022 addressed and shared their traumatic experiences through Twitter hashtags (e.g., emotional distress, rights to education after giving birth, health issues, gender-based violence, etc.) and the strong feeling of powerlessness that they experience in their life. The women’s movement through Twitter also created the milieu that brought in the unspoken topics and issues embedded in the hashtag descriptions. All these were intended to show the public that women still demand protection against unacceptable cultural traditions and bring light and educate the public about the reality of traumatic experiences facing the majority of women in Tanzania society.

Other International Women’s Day studies show that the holiday has been celebrated since the early 1900s. It is a day dedicated to recognizing women’s social, economic, cultural, and political achievements. IWD is celebrated in many countries worldwide and has



become a popular way for people to recognize the accomplishments of women throughout history. Furthermore, it is a way to increase awareness of gender inequality and women's challenges (Xiong et al., 2019). International Women's Day is a great reminder to recognize the efforts of female activists and their continued work to make the world more equitable (Manikonda et al., 2018).

The study findings further suggest that the public actively engaged in the IWD2022 celebration, and there is a growing acceptance of the women's claims, concerns, and cries regarding their rights. The same was hinted at by Mlambo & Kapingura (2019), who argued that women are likely to express their views on political power-related issues and their capability if given a chance to serve in various top positions. There is a growing acceptance of women's claims, concerns, and cries regarding their rights. George (2019) affirms that women have been vocal about the need for equal rights and pay, which has been met with increased recognition. This shift has been seen in the workplace, politics, and society. Women are being heard, and their voices are taken seriously, which is a positive step forward in the fight for equality. It is essential that these voices are listened to and that the necessary changes are put into place to ensure that women are treated with the same respect and dignity as men in all spheres of life (McCleary-Sills et al., 2013; Winker & Degele, 2011) – education, health, social service delivery, and many others.

Through hashtags analysis, women had shown that they are very far in education attainment and leadership roles, whereas President Samia Suluhu Hassan was mentioned through tweets as their role model. The findings from this study inveterate the previous research findings (for example, by McCleary-Sills et al., 2013) that when social media is employed as a platform to voice out minorities' concerns, it may act as a good teacher and awareness tool to the public.

4.0 Conclusion

This study has demonstrated that women's prevalent use of Twitter during the International Day of Women 2022 to express their traumatic experiences has awakened the public to support their movement as established by the positive sentiments. The public reactions and concerns align with the women who presented key issues through various hashtags of the IWD2022, whereas the majority of the tweets were 'positively' supported by the public. Twitter may signify a powerful tool for IWD annual event for women to rapidly communicate with the public when anticipating airing out their voices on specific issues.

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