

From Expertise to Influence: Exploring Personal Branding Journey of Women STEM Leaders Indonesia

Sandy Permata¹, Nur Kholisoh², Elly Yuliawati³

^{1,2,3}Doctoral Program in Communication Science - Universitas Mercu Buana Indonesia

ABSTRACT: This study aims to analyze the personal branding process of female leaders in the STEM field, with a case study on the Generation Girl community. In the midst of the low representation of women in strategic positions in the STEM sector globally and in Indonesia, the community acts as a counter-space that provides space for women to build leadership experience. This study uses a qualitative approach by analyzing the experiences of women leaders in communicating STEM skills while shaping their leadership image. The results of the research show that the personal branding of female leaders in the STEM field in the Generation Girl community is formed through consistent digital communication, personal relationships, and shared values as the foundation of trust, as well as a narrative based on personal achievements and values. This research provides a conceptual contribution in the form of understanding the personal branding of women leaders in the community-based STEM field, a context that has not been widely explored in STEM leadership studies and personal branding which generally focuses on formal organizations or other professions.

KEYWORDS: community, personal branding, STEM, STEM identity, women's leadership

I. INTRODUCTION

The involvement of women in leadership positions in the fields of Science, Technology, Engineering, and Mathematics (STEM) still does not show equal conditions, both at the global and national levels. Globally, women represent only about one-third of the scientific community. Even among women with careers in STEM, only about one in ten women manage to occupy leadership positions (UNESCO, 2025). This condition shows that the gender gap does not only occur at the participation stage, but also in women's opportunities to develop into strategic positions. In G20 countries, women also account for only about 22% of the total workforce in STEM fields (UNESCO, 2025). This means that less than a quarter of workers in the science, technology, engineering, and mathematics sectors are women, so this sector is still dominated by men.

According to the Global Gender Gap Report, by 2025 women will only account for 28.2% of the world's STEM workforce, much lower than their involvement in the non-STEM sector which reached 47.3% (World Economic Forum, 2025). The gender gap in the STEM field is also seen at the higher education level. Based on data from the UNESCO Institute for Statistics for the 2018-2023 period, women only make up about 35% of all STEM graduates in the world (S. Montoya, 2024; UNESCO, 2024a). This condition is one of the factors that limits the number of women entering the workforce in the STEM field and has the potential to reduce their chances of achieving leadership positions in the future.

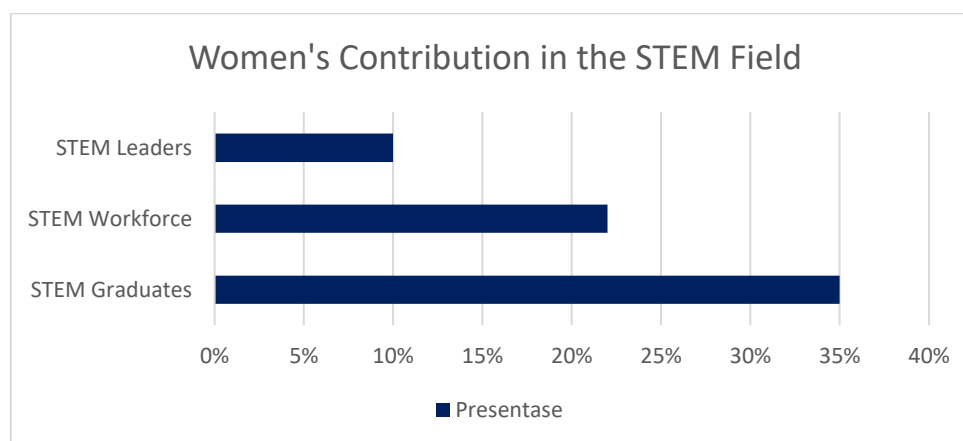


Figure 1. Percentage of Women's Contribution in STEM Fields

Sources: (UNESCO, 2024b, 2025)

From Expertise to Influence: Exploring Personal Branding Journey of Women STEM Leaders Indonesia

In Indonesia, the gender gap in STEM fields is also still visible. Based on the statement of the Deputy Chairman of the People's Consultative Assembly of the Republic of Indonesia, Lestari Moerdijat, who cited data from the International Labour Organization (ILO) in 2024, although female STEM graduates are estimated to account for around 35%, only a small percentage then work or occupy leadership positions in the field. Based on ILO data in 2024, only about 8% of female STEM graduates in Indonesia work in the science and technology sector (MPR RI, 2026). On the other hand, the proportion of women in managerial positions in various sectors has indeed increased, from 22.32% in 2015 to 36.68% in 2025 (BPS RI, 2026; Christi, 2025). However, these figures still show that women have not gained balanced representation in strategic positions. This condition indicates that the gender gap does not only occur in access to education or employment, but also in women's opportunities to develop and be recognized as leaders in STEM fields which have been dominated by men.

In the midst of these conditions, various communities then came together to expand women's participation in the STEM field through education, capacity building, and leadership programs that reach the community more broadly. One of them is Generation Girl, a non-profit community that focuses on introducing STEM to Indonesian women through education and leadership development programs (Generation Girl, 2026a). Unlike programs run by educational institutions or companies, Generation Girl develops a community-based women's leadership network through the Leaders program. This program provides opportunities for women from various regions to lead community chapters, organize various activities, and expand community access to STEM learning (Generation Girl, 2025).



Figure. 2 Generation Girl Community
Source: (Generation Girl, 2026b)

The involvement of women as leaders in Generation Girl is a space for them to show their leadership skills in a field that is still often perceived as a masculine field (Generation Girl, 2025). Experience in a STEM environment not only contributes to the development of technical competencies, but also shapes an individual's identity as part of the STEM ecosystem through aspects of interest, competence, participation, and recognition from the social environment (Villa et al., 2026). Identity is then one of the cornerstones in building personal branding, which is a person's way of communicating their competencies, experiences, values, and professional identity to others (Gorbatov et al., 2018). For women leaders in STEM, personal branding not only demonstrates technical skills, but also reflects their commitment to promoting gender equality, innovation, and women's empowerment (Handayani et al., 2023). Thus, personal branding plays a role in building an image as a competent, inspirational, and able to have a positive influence on their community.

Research on personal branding has been conducted in various professions, such as art workers, freelance workers, journalists, and media professionals (Gorbatov et al., 2018; Kucharska & Mikołajczak, 2018; Misdah et al., 2025). However, studies that specifically discuss personal branding of women leaders in the STEM field are still limited. Research on STEM and gender also focuses more on the context of formal education, such as student participation in STEM education, as well as leadership in formal organizations such as student associations or research institutions (Johnson, 2017; Padayachee et al., 2025; Villa et al., 2026). Meanwhile, informal communities have different characteristics, such as voluntary membership, coordination that is largely done digitally, and leadership relationships that do not depend on rigid organizational structures (Handayani et al., 2023). These differences show that there is a research space that has not been widely studied.

Based on these conditions, this study offers novelty by examining the personal branding of women leaders in the field of STEM in the context of the non-formal community in Indonesia, namely Generation Girl. This focus distinguishes the research from previous studies that generally focused on formal education environments, student leadership, or STEM organizations that already have formal institutional structures. Through the context of the community, this research is expected to provide a deeper understanding of how women build leadership identities and communicate their role in driving STEM development in Indonesia.

II. RESEARCH METHODS

This study uses a qualitative approach with a case study method to deeply understand the process of forming personal branding of female leaders in the field of Science, Technology, Engineering, and Mathematics (STEM) in the context of community-based leadership (Crowe et al., 2011). The qualitative approach was chosen because it allows researchers to explore the experiences, meanings, and practices of leadership communication based on the perspectives of the informants in the context they are experiencing (Creswell, 2023). The case study focuses on the Generation Girl community as a unit of analysis as this community actively develops women's leadership through the Leaders program spread across various regions in Indonesia (Generation Girl, 2025).

The research informants were selected using the purposive sampling technique, which is based on the suitability of their experience and role with the focus of the research (Creswell, 2023). This research involved two informants representing different levels of leadership in the community structure. The first informant is the Community Chapter Coordinator who is responsible for coordinating the implementation of the Leaders program in various chapters, while the second informant is the Chapter Leader of Generation Girl Tangerang who has experience leading the community at the local level. These different roles provide complementary perspectives on leadership practices as well as the process of forming personal branding in the community. To maintain identity confidentiality, the two informants were presented using the codes I1 and I2.

Tabel I. Characteristics of Informants

No	Informants	Role	Remarks
1.	Informant 1 (I1)	Community Coordinator	Chapter Join Generation Girl in 2024-present
2.	Informant 2 (I2)	Chapter Leader Generation Girl Tangerang	Chapter Leader Batch 5 (July-December 2025)

Source: Research Data (2026)

The research data was collected through in-depth interviews in a semi-structured format. This technique was chosen because it gives researchers the flexibility to explore the informant's experiences in depth while keeping the discussion in accordance with the research objectives (Busetto et al., 2020). The interviews focused on the informant's leadership experience, motivation for involvement in the STEM community, communication practices carried out, confidence-building strategies in digital-based leadership, and the process of building personal branding as a female leader in the STEM field. In addition to interviews, this study also utilizes documentation studies through the search for various information published by Generation Girl, such as uploads on Instagram and LinkedIn, to enrich understanding of leadership representation and personal branding displayed in public spaces (Bowen, 2009).

All data were analyzed using the Miles and Huberman interactive analysis model which included three stages, namely data reduction, data presentation, and conclusion drawn. In the reduction stage, the interview results data are selected, grouped, and focused according to the research theme. The reduced data is then presented in the form of a narrative to make it easier for researchers to identify patterns, relationships, and themes that emerge. The next stage is carried out through an interpretation process to produce an understanding of how personal branding of women leaders is built in the STEM community (Miles et al., 2014). To increase the credibility of the findings, this study applied source triangulation by comparing information obtained from two informants who had different leadership positions and confirming it with relevant documentation data (Creswell, 2023).

III. RESULTS AND DISCUSSION

A. STEM Community as a Space for Shaping Women's Leadership Identity

The results show that women's involvement in STEM community leadership in Generation Girl is motivated by diverse experiences and motivations, although driven by a shared awareness of the importance of expanding women's participation in STEM fields. Informant 1 (I1), who has a background in statistics education and professional experience in the field of data, sees that women are still underrepresented in STEM fields. This awareness arises through first-hand experience in a work environment that is still dominated by men. The experience prompted her to look for spaces that could strengthen women's self-confidence while building a supportive community for women in STEM, namely through involvement in the Generation Girl community, as revealed by the informant in the following interview.

"Well, I realized, especially earlier, that I had time to enter the data field where there were still many men, so I realized, oh it turns out that the role of women here is still very little, and when I also discussed with friends in the same department who had also started working, it turned out that the problem was felt not only by me, but also many other friends. Finally, I just started looking for a community that can support me to be more confident, to continue my career, and then I can also help other female friends" (Interview, 2026).

From Expertise to Influence: Exploring Personal Branding Journey of Women STEM Leaders Indonesia

Meanwhile, Informant 2 (I2) has a non-STEM educational background and joined Generation Girl in an effort to get to know the STEM field as well as develop her leadership capacity, as revealed by the informant in the following interview.

"Because it turns out that without any background specialist, both social and or scientific, is exact. It can be learned and why it is needed, looking at the industry and the job or professional setting that usually requires much more technical and harder skills. So I think it's something that needs and can be learned by everyone, especially women" (Interview, 2026).

The difference in the backgrounds of the two informants suggests that leadership in the community in the field of STEM is not entirely determined by the mastery of STEM technical competencies. On the other hand, aspects such as willingness to learn, commitment to community values, ability to manage programs, and capacity to build relationships are important factors in carrying out leadership roles. Research by Coluccio et al., 2024 shows that involvement in leadership tasks and teamwork contributes to increased self-efficacy, which ultimately drives the emergence of leadership (leader emergence) in women in STEM fields. These findings show that non-formal communities in STEM fields such as Generation Girl can be an inclusive space that allows women from diverse backgrounds to build leadership capacity in STEM fields. From the perspective of Woman Leadership in STEM, communities like Generation Girl can be understood as a counter-space, which is a space that provides opportunities for women to gain leadership experience in the midst of limited representation of women in strategic positions in the STEM field (Ong et al., 2018). The existence of Generation Girl allows women to develop confidence, expand professional networks, and gain leadership experience that may not be available in formal organizations or work environments.

This is in line with research on the Leadership Lab for Women in STEM which emphasizes the importance of providing a supportive learning environment, mentoring, and opportunities to develop leadership skills for women in STEM fields (Van Oosten et al., 2017). Furthermore, research by Ramirez, 2025 at Technological University Dublin also introduced the concept of Infrastructures of Inclusion, which is the various forms of academic, social and institutional support needed to increase women's participation in STEM fields. The study emphasizes that women do not lack abilities, but rather need an environment that is able to accommodate diverse potentials and provide opportunities for development (Ramirez, 2025).

The results of the study also show that identity as part of the STEM ecosystem is built through different pathways in each informant. Informant 1 already has a relatively strong STEM identity because it is supported by her educational background, professional experience, and involvement in Generation Girl. In contrast, Informant 2 is still in the process of building STEM technical competencies, but has gained recognition as a community leader through her successful management of various programs at Generation Girl. These findings expand on the concept of STEM Identity put forward Carlone & Johnson, 2007, that is, that STEM identity in the non-formal community is not only shaped by technical competence, but also by leadership performance and recognition from the community. In line with this opinion, the findings of the study by García-Silva et al., 2025 emphasized that the opportunity to get mentoring is an important factor in empowering women in the STEM field because it can support professional development, increase women's participation, and encourage them to challenge gender stereotypes that are still inherent in the STEM field.



Figure 3. Involvement of Generation Girl Leaders as Speakers in Self-Development Activities

Source: Research Documentation (2026)

In the context of this research, this role is reflected in various Generation Girl activities that provide space for women to learn to lead, build collaboration, and develop their capacity. Commitment to Generation Girl values, the ability to manage programs, and build relationships with members are important parts of carrying out leadership roles. These findings are in line with opinion Jean, 2025 which emphasizes that the development of women's leadership through STEM approaches is not only oriented towards

From Expertise to Influence: Exploring Personal Branding Journey of Women STEM Leaders Indonesia

mastering technical aspects, but also on strengthening communication skills, collaboration, confidence, resilience, and involvement in the community. Thus, women's leadership in the field of STEM can be understood as a process that combines professional competence with interpersonal skills and a commitment to common goals. In addition, leadership is also one of the pathways that allows women to build STEM identities even though they come from different disciplines.

Consistency in the leadership process carried out in the Generation Girl community, not only forms the leader to explore ideas, knowledge, and creativity carried out and coordinated together with the members of the community, but also makes this community environment can have a real impact on the development of women in the STEM field through various activities carried out, as well as get appreciation and awards that are Proof of the achievement of the success of the leadership process carried out by the regional representative leader. The achievements and achievements of these leaders are a pride in itself that can improve the performance and confidence of leaders to continue to work and innovate to educate women to be more empowered in the STEM field.



Figure 4. Certificate of Achievement Leaders Generation Girl

Source: Research Documentation (2026)

Digital Communication in Community Leadership

All informants described that leadership activities in Generation Girl mostly take place through digital communication. Program coordination, task division, member assistance, and evaluation of activities are carried out using various digital platforms such as WhatsApp, Zoom, and social media. At the regional chapter level, internal communication is carried out through WhatsApp Groups which are differentiated based on coordination needs, such as core teams, volunteers, participants, and external partners, as conveyed by the informant in the following interview. Then, regular meetings are held through video conferencing to maintain continuity of coordination.

"So, especially for our communication with chapter friends, yes, it's still fully online. So, indeed, even from the beginning to the end to the management, there are many who have never met from myself, much more who have never met face-to-face, because we are indeed fully online communication. But Alhamdulillah, they can still follow and do the program well in their area, even though our communication is only online, *Mbak*" (Interview, 2026).

Meanwhile, social media such as Instagram is used to build communication with the community and display community activities. At the central coordination level, the digital leadership pattern is seen to be getting stronger because the relationship between coordinators and chapter leaders in various regions is not always supported by face-to-face interaction. Nevertheless, community activities continue to run through structured digital communication mechanisms. This condition shows that Generation Girl represents a form of leadership based on digital communities, which is a leadership model that does not depend on geographical proximity, but on the ability to manage communication, coordination, and relationships through technology (Tigre et al., 2025).

These findings are in line with research by Wulandari & Ahmad, 2025 which shows that digitalization opens up wider opportunities for women to strengthen leadership roles in various sectors. The use of digital technology allows women to overcome space and time limitations in carrying out leadership roles, although support is still needed in the form of digital literacy and an inclusive ecosystem (Kahanna, 2021). In the context of this research, these opportunities are reflected in leadership practices in Generation Girl, where communication, coordination, and relationship management between members can take place effectively through digital platforms without relying on geographical proximity. Generation Girl shows that technology is not only a medium of communication, but also the main infrastructure that allows the process of leadership, coordination, and collaboration to take place in a sustainable manner.

Informant 2 explained that closeness with members is built through interpersonal communication, such as sharing personal experiences, creating informal discussion spaces, and carrying out activities that strengthen team relationships. On the contrary, Informant 1 emphasizes the importance of the same vision and organizational values as the basis for building trust between leaders in various regions. Even though they rarely meet in person, the leaders are still able to run the program independently because they have the same understanding of Generation Girl's goals and values. These differences in strategies show that trust building in digital community leadership is contextual. At the leadership level that is face-to-face with members, trust is built more through interpersonal closeness. Meanwhile, at the level of organizational coordination, trust is formed through the alignment of values, goals, and common identity.



Figure 5. Generation Girl Central Team

Source: Research Documentation (2026)

These findings expand the understanding of STEM leadership that has often been studied in the context of formal organizations with a clear hierarchical structure. In a volunteer-based digital community, the effectiveness of leadership is largely determined by the leader's ability to build connections, convey values, and maintain member engagement on an ongoing basis. These findings are in line with research by Zhao et al., 2025 Regarding digital leadership, it shows that digital leadership plays a role in building community trust and encouraging the process of knowledge sharing, which ultimately strengthens the sustainability of the community. Thus, digital communication is not only a medium of coordination, but also a key mechanism in building relationships and maintaining member participation (Lin, 2025).

These findings are in line with the Leadership Communication Theory developed by Fairhurst (2007 in the [Fairhurst & Connaughton] [2014]), who view leadership as a communication process built through framing, sensemaking, and sensegiving. In the context of this research, Informant 1 carried out the framing process by building a common understanding of the identity and goals of the community so that each chapter leader has the same reference in running the program (Aritz, 2012). On the other hand, the interpersonal approach carried out by Informant 2 shows the practice of sensegiving, which is the process of building meaning through more personal relationships so that members not only understand more personal relationships so that members not only understand the tasks they are carrying out, but also feel part of the community (Fairhurst & Connaughton, 2014). These findings suggest that discursive leadership practices can still take place effectively in a digital environment, as long as communication is done consistently and able to build common meaning among members (Mayfield & Mayfield, 2017).

The leadership character developed by the two informants is also reflected in the way they manage the conflict. Conflicts that arise in communities and chapters are generally resolved through personal communication to understand the problems faced by each member. In the context of a volunteer-based community, leadership challenges are not only related to program coordination, but also to maintaining the sustainability of member engagement. Informant 2 explained that conflicts within the team are generally resolved through personal communication between leaders and related members, not through formal open forums. This approach is used to understand problems more deeply while maintaining interpersonal relationships within the team. These findings are in line with research by Becker et al., 2022 on online innovation communities (ICs) that show that one of the main challenges of the community is to maintain sustainable and quality member participation. The study also found that the way leaders communicate affects the level of member participation, so leadership communication is an important factor in maintaining community engagement (Becker et al., 2022).

At a broader level of coordination, Informant 1 identified the dynamics of volunteer commitment as one of the key challenges in managing a community. Changes in the level of member involvement, role changes, and the need for regeneration are part of the dynamics of volunteer-based organizations (Fernandes & Matos, 2023). According to Hallmann et al., 2025 volunteer motivation differs based on the role they perform and has a relationship with their satisfaction in organizing. Fulfilling these diverse needs and motivations is important to maintain volunteer involvement in the organization (Hallmann et al., 2025). In the Generation Girl community, solving these problems is done by prioritizing dialogue, mentoring, and finding solutions together before taking structural steps such as member change.

These findings suggest that the leadership style in Generation Girl is more relational and humanist oriented than a formal administrative approach. Leaders not only play the role of task managers, but also facilitators who maintain social relations in the community. This view is in line with research by Nash et al., 2017 regarding women's leadership in STEM shows that women tend to describe their leadership through transformational characteristics. In Generation Girl, this orientation is seen through the role of leaders in building interpersonal closeness, maintaining communication, and maintaining community member engagement. This relational approach affects the way the two informants build personal branding.

Personal Branding as a Community-Based Leadership Communication Practice

The main findings of this study are related to how the personal branding of female STEM leaders is built in leadership and communication practices in the Generation Girl community. Both informants show a similar pattern, that the identity of female STEM leaders is not constructed through explicit self-expression, but through activities, contributions, and impacts provided to the community. Interestingly, the two informants showed different levels of awareness of the self-image formation process. Informant 2 revealed that she consciously wants to be known as a figure who encourages women to dare to enter and develop in the STEM field, not only through skill improvement, but also through a change in mindset. In addition, he wants to be perceived as an individual who is able to connect ideas with the implementation of programs because according to him real impact is an important aspect of STEM activities. He also assessed that the image that has been attached to him is a person who has initiative, is reliable, has a high sense of responsibility, is able to think strategically while being directly involved in the implementation of the program, and supports the development of members through good teamwork. In addition, Informan 2 features many of the results of the work through program documentation and community achievements, and the impact it has on the community as part of a portfolio of professionals through social media such as Instagram and LinkedIn.



Figure 6. Repost Report on Generation Girl Activities on LinkedIn Leader

Source: Research Documentation (2026)

Identity as a STEM leader emerges not through personal claims, but through evidence of real involvement and contributions made in the community. These findings are in line with research by Heriberta et al., 2024 which shows that personal branding is not always built through intentional strategy, but can be formed naturally through authentic actions, leadership experience, and involvement in networking. The research shows that leadership experiences and actions taken consistently can increase women's visibility so that they are more easily recognized and heard in the organizational environment (Heriberta et al., 2024). Contrary to this opinion, research by Garr-Schultz & Gardner, 2018 shows that women in the field of STEM professionals strategically adjust the way women and STEM identities are presented based on the audience and the context of their interactions. Meanwhile, the findings of this study show that in the Generation Girl community, identity as a female leader in the field of STEM is built through real involvement and contribution in community activities, not through self-presentation.

Informant 1 said that at the beginning of joining Generation Girl she never consciously thought about how she wanted to be known. Her main motivation at that time was to find an environment that had similar experiences related to women's challenges in the STEM field. Over time, the orientation developed into a desire to advocate for more women to know and benefit from Generation Girl. These efforts are carried out through various forms of communication, especially by sharing information about community programs on social media and providing support to chapter leaders, as revealed by the informant in the following interview.

"Then through social media as well, so maybe social media is actually more personal, but for communication that does have interests and a context related to Gen Gi, it is only through WhatsApp groups and Zoom. So, what is the name, if social media is actually more for publication, so it is publication to the outside, outside the community" (Interview, 2026).

The use of social media is in line with research by Srivastava, 2026 show that digital platforms can be used to increase visibility, build networks, and create engagement with audiences. In line with the findings of the study, (Steinke et al., 2024) revealed that social media is used to showcase expertise in STEM fields, personal character, and build connections with audiences.

When asked to explain her self-image, Informant 1 also did not define it directly, but referred to the assessment of others who see her as a figure who is synonymous with women empowerment and always strives to bring benefits to others, both in the community and in a professional work environment. Informant 1 emphasized that the character of female STEM leaders is not only determined

From Expertise to Influence: Exploring Personal Branding Journey of Women STEM Leaders Indonesia

by technical abilities, but also by the ability to communicate experiences, learning, and impacts that have been generated. Storytelling skills are an important part of building the perception of a leader's competence and credibility (Rasmussen, 2019).

The findings are in line with the Personal Branding Theory put forward by Peter Montoya. Several elements of personal branding, such as leadership, visibility, personality, unity, and goodwill, are seen in the leadership practices of the two informants (Montoya & Vandehey, 2002). Visibility is built through consistent publication of community activities and achievements, while personality and unity are reflected in the alignment between personal values and the way they lead (Marenza et al., 2024; Zakiyah et al., 2024). In Informant 2, the elements of leadership and visibility are seen through their awareness of building an image as a leader who is able to make an impact, while in Informant 1 the two elements develop gradually through advocacy activities and the dissemination of information about Generation Girl. One of the activities carried out to display the Visibility of a Leader to introduce STEM for Women is carried out in various educational ways, one of which is by conducting educational webinars with STEM-Related Materials which are carried out on digital platforms aimed at women in regions in Indonesia. This shows one of the self-competencies of women leaders who seek to improve women's competencies in the field of STEM.



Figure 7. STEM Leader Education Based on Webinars

Source: Research Documentation (2026)

The goodwill aspect is the most prominent characteristic because the reputation built is always associated with Generation Girl's mission in expanding women's participation in STEM fields, not solely for the benefit of individuals (Marenza et al., 2024; Zakiyah et al., 2024). Unlike personal branding in professions such as celebrities, politicians, or business people which are generally strategically designed, personal branding in the Generation Girl community develops organically through daily leadership practices (Afrilia, 2018; Dominika & Susilo, 2024; Maftukhah & Ma'ali, 2023). Reputation is built on consistency of communication, ability to build relationships, and tangible contributions to the community. These findings show that personal branding in the informal community is more appropriately understood as an impact-driven personal branding communication process than as a self-promotion strategy.

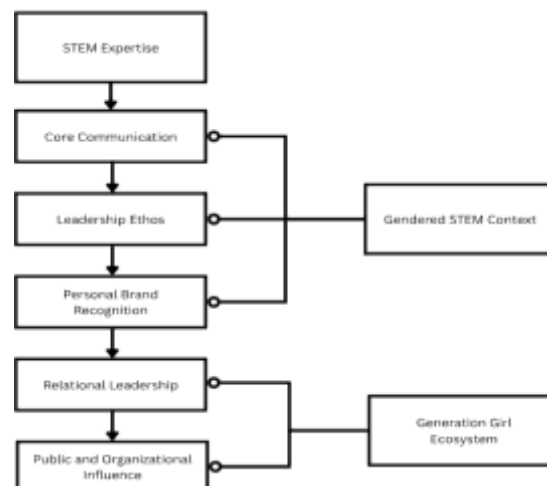


Figure 8. Conceptual Model of Leadership Communication and Personal Branding of STEM Women Leaders

Source: Researcher Analysis Results (2026)

From Expertise to Influence: Exploring Personal Branding Journey of Women STEM Leaders Indonesia

In Figure 8. describes a conceptual model that shows the relationship between leadership communication and personal branding of female leaders in the STEM field within the scope of Generation Girl. Personal branding in this study is not formed independently, but is influenced by two main elements, namely STEM expertise (technical competence) and gendered STEM context (gender biased context in the STEM field). STEM competencies are the basis for the formation of core communication, which is the way leaders communicate their skills and ideas. Meanwhile, the gender context also influences the way we communicate, form a leadership ethos, and influence the process of forming personal brand recognition. The condition of STEM that is still dominated by men is thus not only an obstacle, but also helps shape the values and ways in which women leaders build their leadership image.

Furthermore, core communication develops into a leadership ethos, which is the values and principles reflected in the leader's communication style. The leadership ethos then contributes to the formation of personal brand recognition through the interaction between competence, performance, and recognition from the community. This recognition further strengthens relational leadership, which is characterized by an emphasis on interpersonal relationships and collaboration rather than a hierarchical approach. In this process, the Generation Girl ecosystem acts as a counter-space that strengthens relational leadership practices while supporting the formation of public and organizational influence. Ultimately, relational leadership supported by community recognition and the Generation Girl ecosystem contributes to public and organizational influence.

IV. CONCLUSION

In general, this study concludes that the personal branding of female STEM leaders in Generation Girl is formed from a combination of leadership identity, communication strategies and real contributions to the community. Nonformal communities exist as an alternative space that allows women to hone their leadership experience while strengthening their identity in the STEM ecosystem. At the same time, digital communication is the main means to move the wheels of leadership, unite visions, and foster mutual trust even without intensive face-to-face interaction. Interestingly, this leadership reputation is not built on individual image alone, but is measured by the success of the program, the quality of interpersonal relationships, and the social impact felt by members and the community.

The findings prove that the self-image formation of female STEM leaders in the informal community has unique characteristics that distinguish them from conventional professions. At Generation Girl, personal branding grows organically through daily leadership practices, from how to communicate, build networks, manage organizations, to spread tangible benefits. This process goes beyond just a strategy to build personal reputation, personal branding transforms into a strategic means of communication for women to negotiate positions and strengthen their roles in the midst of STEM that is still haunted by gender inequality.

The strength of these findings is further clarified through the integration of four theoretical frameworks. Leadership Communication Theory and Personal Branding Theory show how leadership and self-image are constructed through consistent communication, visibility, and tangible actions. Meanwhile, the perspective of Women Leadership in STEM emphasizes the vitality of community spaces in the midst of representation gaps, which is reinforced by the concept of STEM Identity that identity in the STEM world does not always depend on technical ability, but can be formed through leadership performance and social recognition. Theoretically, this study makes an important contribution by emphasizing that the personal branding of female STEM leaders in the informal community is digital, relational, organic, and impact-based. Nonformal communities are proving to be a strategic space for women to build identities, gain leadership legitimacy, while expanding their active participation in the STEM ecosystem.

ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to the members of Generation Girl who participated as informants in this study and generously shared their experiences and insights.

REFERENCE

- 1) Afrilia, A. M. (2018). Personal Branding Remaja di Era Digital. *Mediator: Jurnal Komunikasi*, 11(1), 20–30. <https://doi.org/10.29313/mediator.v1i1.3626>
- 2) Aritz, J. (2012). Book Review: The Power of Framing: Creating the Language of Leadership. *Journal of Business Communication*, 49(1), 95–100. <https://doi.org/10.1177/0021943611425334>
- 3) Becker, L., Coussement, K., Büttgen, M., & Weber, E. (2022). Leadership in Innovation Communities: The Impact of Transformational Leadership Language on Member Participation. *Journal of Product Innovation Management*, 39(3), 371–393. <https://doi.org/10.1111/jpim.12588>
- 4) Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027>
- 5) BPS RI. (2026). *Proporsi perempuan yang berada di posisi managerial menurut provinsi, 2025*.
- 6) Busetto, L., Wick, W., & Gumbinger, C. (2020). How to Use and Assess Qualitative Research Methods. *Neurological Research and Practice*, 2(1), 14. <https://doi.org/10.1186/s42466-020-00059-z>
- 7) Carlone, H. B., & Johnson, A. (2007). Understanding the Science Experiences of Successful Women of Color: Science

- Identity as an Analytic Lens. *Journal of Research in Science Teaching*, 44(8), 1187–1218.
<https://doi.org/10.1002/tea.20237>
- 8) Christi, T. F. (2025). *Proporsi Perempuan yang Berada di Posisi Manajerial*.
- 9) Coluccio, G., Muñoz-Herrera, S., Adriasola, E., & Escobar, E. (2024). Leadership Development in Women STEM Students: The Interplay of Task Behaviors, Self-Efficacy, and University Training. *Behavioral Sciences*, 14(11), 1087.
<https://doi.org/10.3390/bs14111087>
- 10) Creswell, J. W. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. (6th ed.). SAGE.
- 11) Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The Case Study Approach. *BMC Medical Research Methodology*, 11(1), 100. <https://doi.org/10.1186/1471-2288-11-100>
- 12) Dominika, & Susilo, D. (2024). Personal Branding Joko Widodo di Instagram Jelang Periode Akhir Kepresidenan. *Jurnal Komunikasi Profesional*, 8(2), 176–196. <https://doi.org/10.25139/jkp.v8i2.8391>
- 13) Fairhurst, G. T., & Connaughton, S. L. (2014). Leadership: A communicative perspective. *Leadership*, 10(1), 7–35.
<https://doi.org/10.1177/1742715013509396>
- 14) Fernandes, T., & Matos, M. A. de. (2023). Towards a Better Understanding of Volunteer Engagement: Self-determined Motivations, Self-expression Needs and Co-creation Outcomes. *Journal of Service Theory and Practice*, 33(7), 1–27.
<https://doi.org/10.1108/JSTP-09-2022-0215>
- 15) García-Silva, E., Perez-Suarez, S., Zavala-Parras, A., Meléndez-Anzures, F. E., & Dominguez, A. (2025). Continuing Education of Academic Women in STEM: Perspectives on Mentoring and Professional Roles. *Frontiers in Education*, 10.
<https://doi.org/10.3389/educ.2025.1473331>
- 16) Garr-Schultz, A., & Gardner, W. L. (2018). Strategic Self-Presentation of Women in STEM. *Social Sciences*, 7(2), 20.
<https://doi.org/10.3390/socsci7020020>
- 17) Generation Girl. (2025). *Generation Girl Impact Report 2025*.
- 18) Generation Girl. (2026a). *About Us*. Generationgirl.Org.
- 19) Generation Girl. (2026b). *Website Profile Generation Girl*. <https://generationgirl.org/>
- 20) Gorbato, S., Khapova, S. N., & Lysova, E. I. (2018). Personal Branding: Interdisciplinary Systematic Review and Research Agenda. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02238>
- 21) Hallmann, K., Ruetz, J., Feiler, S., & Breuer, C. (2025). Non-profit Sports Club Volunteers: Same, Same, but Different or One and the Same? *European Sport Management Quarterly*, 25(5), 882–904.
<https://doi.org/10.1080/16184742.2025.2455980>
- 22) Handayani, A. S., Dida, S., & Nugraha, A. R. (2023). Manajemen Branding Femme in STEM sebagai Platform Pemberdayaan Perempuan. *Jurnal Komunikasi Universitas Garut: Hasil Pemikiran Dan Penelitian*, 9(1), 1046–1064.
<https://doi.org/https://doi.org/10.52434/jk.v9i1.881>
- 23) Heriberta, H., Gaus, N., Paramma, M. A., & Utami, N. (2024). Advancing Women to Leadership in Academia: Does Personal Branding Matter? *Qualitative Research Journal*, 24(5), 666–681. <https://doi.org/10.1108/QRJ-06-2023-0091>
- 24) Jean, G. (2025). *Harnessing the Power of Social Media: Empowering Women Leaders Through Digital Advocacy and Branding*.
https://www.researchgate.net/publication/387817548_Harnessing_the_Power_of_Social_Media_Empowering_Women_Leaders_Through_Digital_Advocacy_and_Branding
- 25) Johnson, K. M. (2017). The Importance of Personal Branding in Social Media: Educating Students to Create and Manage their Personal Brand. *International Journal of Education and Social Science*, 4(1), 21–27.
https://www.researchgate.net/publication/313256001_The_Importance_of_Personal_Branding_in_Social_Media_Educating_Students_to_Create_and_Manage_their_Personal_Brand
- 26) Kahanna, M. (2021). The Effectiveness of Women’s Leadership in the Digital Era. *HUMANISMA : Journal of Gender Studies*, 5(2). <https://doi.org/https://doi.org/10.30983/humanisme.v5i2.4699>
- 27) Kucharska, W., & Mikołajczak, P. (2018). Personal Branding of Artists and Art-designers: Necessity or Desire? *Journal of Product & Brand Management*, 27(3), 249–261. <https://doi.org/10.1108/JPRM-01-2017-1391>
- 28) Lin, Q. (2025). Digital Leadership: A Systematic Literature Review and Future Research Agenda. *European Journal of Innovation Management*, 28(6), 2469–2488. <https://doi.org/10.1108/EJIM-07-2023-0522>
- 29) Maftukhah, N., & Ma’ali, A. (2023). Looking at the Model of “Personal Branding” of Prophet Yusuf ‘Alaihisalam in the Qur’an Based on Peter Montoya’s Perspective: Semantic Analysis Study. *Language Literacy: Journal of Linguistics, Literature, and Language Teaching*, 7(2), 312–322. <https://doi.org/10.30743/ll.v7i2.7889>
- 30) Marenza, A. F., Yanto, Y., & Dianti, M. H. (2024). Personal Branding “Gemoy”Prabowo (Case Study On The Tiktok Account @Partai Gerindra). *Jurnal Multidisiplin Dehasen (MUDE)*, 3(4). <https://doi.org/10.37676/mude.v3i4.6555>
- 31) Mayfield, J., & Mayfield, M. (2017). Leadership Communication. *International Journal of Business Communication*, 54(1), 3–11. <https://doi.org/10.1177/2329488416675446>

- 32) Miles, M. B., Huberman, M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. Sage Publisher.
- 33) Misdah, Soemantri, A. I., Sumin, S., Wajdi, M. B. N., & Pamungkas, M. I. (2025). Religious Leadership and Personal Branding of “Kyai” in Islamic Education Management: Pathways to Promoting Moderation and Preventing Radicalism. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 6(1), 122–138. <https://doi.org/10.31538/munaddhomah.v6i1.1510>
- 34) Montoya, P., & Vandehey, T. (2002). *The Personal Branding Phenomenon: Realize Greater Influence, Explosive Income Growth and Rapid Career Advancement by Applying the Branding Techniques of Michael, Martha & Oprah*. Peter Montoya Incorporated.
- 35) Montoya, S. (2024, April 25). *New UIS Data Show That the Share of Women in STEM Graduates Stagnant for 10 Years*. World Education Blog.
- 36) MPR RI. (2026, June 8). *Lestari Moerdijat: Partisipasi Perempuan Rendah di Sektor STEM, Hambat Daya Saing Bangsa*. MPR.Go.Id.
- 37) Nash, M., Davies, A., & Moore, R. (2017). What Style of Leadership do Women in STEMM Fields Perform? Findings from an International Survey. *PLOS ONE*, 12(10), e0185727. <https://doi.org/10.1371/journal.pone.0185727>
- 38) Ong, M., Smith, J. M., & Ko, L. T. (2018). Counterspaces for Women of Color in STEM Higher Education: Marginal and Central Spaces for Persistence and Success. *Journal of Research in Science Teaching*, 55(2), 206–245. <https://doi.org/10.1002/tea.21417>
- 39) Padayachee, S., Henning, S., & Mpofu, M. (2025). Creating a Positive Personal Leadership Brand Framework: A Positive Organisational Behaviour Perspective. *Southern African Business Review*. <https://doi.org/10.25159/1998-8125/16397>
- 40) Ramirez, C. P. O. (2025). Female Engagement in STEM through Hybrid Programs (Ireland TUD-model). *Frontiers in Education*, 10. <https://doi.org/10.3389/educ.2025.1598369>
- 41) Rasmussen, J. (2019). *Storytelling as a Guiding Leadership Principle: A Framework for Cocreating Narratives with Leaders* (pp. 137–154). https://doi.org/10.1007/978-3-030-17851-2_10
- 42) Srivastava, S. (2026). From Lab to Likes to Leadership: Social Media as a Catalyst for Women-Led Student Entrepreneurship in STEM. *The American Journal of Interdisciplinary Innovations and Research*, 54–58. <https://doi.org/10.37547/tajir/warm-09>
- 43) Steinke, J., Baumel, K., & Turner, M. M. (2024). Cultivating Authenticity as Role Models: Women in STEM Influencers on Instagram. *Science Communication*, 46(5), 543–583. <https://doi.org/10.1177/10755470241239942>
- 44) UNESCO. (2024a). *2024 Gender Report: Technology on Her Terms*.
- 45) UNESCO. (2024b). *Changing the Equation: Securing STEM Futures for Women*.
- 46) UNESCO. (2025, February 6). *UNESCO Launches Imagine a World with More Women in Science” Campaign*. Unesco.Org.
- 47) Van Oosten, E. B., Buse, K., & Bilimoria, D. (2017). The Leadership Lab for Women: Advancing and Retaining Women in STEM through Professional Development. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.02138>
- 48) Villa, A. M., Monroe, X. J., Dyer, E. B., White, M. S., Britton, T., & Schneider, S. (2026). Identifying as a “STEM Person”: Examining Students’ STEM-Focused High School Experiences. *Journal for STEM Education Research*. <https://doi.org/10.1007/s41979-025-00176-x>
- 49) World Economic Forum. (2025). *Global Gender Gap Report*.
- 50) Wulandari, W. R., & Ahmad, N. (2025). The Influence of Women’s Leadership Policy on Challenges and Opportunities in the Digital Age. *Journal of Human Rights, Culture and Legal System*, 5(1), 124–157. <https://doi.org/10.53955/jhcls.v5i1.503>
- 51) Zakiyah, S., Suryana, C., & Risdayah, E. (2024). Personal Branding Melalui Media Sosial TikTok @Jihanmndaa. *Reputation Jurnal Hubungan Masyarakat*, 7(2), 203–222. <https://doi.org/10.15575/reputation.v7i2.28578>
- 52) Zhao, G., Zhao, F., Hui, X., Wu, Y., & Zhao, X. (2025). How Digital Leadership Impacts Community Resilience: A Moderated Mediation Model. *Frontiers in Public Health*, 13. <https://doi.org/10.3389/fpubh.2025.1524985>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non-Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.