Fempreneurship Through Digital Platforms:
The "Labyrinth Groove" and the "Barricades" Within

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ABSTRACT

The picture of entrepreneurs is changing with technology and women increasingly utilizing digital agility to navigate their careers. While several studies examine digital and female entrepreneurship, few investigate their integration, especially the democratizing potential of digital platforms. This study explores whether digital agility helps women overcome gender barriers in entrepreneurship through a cyberfeminist lens. Results show that although digital platforms may aid digital fempreneurship, barriers remain. The study identifies a double paradox of emancipation and conquest. This research pushes the boundaries of cyberfeminism and paradox theory, providing empirical evidence of platform power in entrepreneurship. It is among the first to identify barriers within the digital fempreneurship realm.

KEYWORDS

Cyberfeminism, Digital Platforms, Female Entrepreneurship, Paradox, Talent Management

THE STORY OF RICHA

Instagram page of Richa reads, "Entrepreneur & Owner- Parcham Classes" as she boasts of 1.67M subscribers on YouTube. Starting her career as a lecturer, she switched to the corporate and, subsequently, left it to become an entrepreneur, using her training in mnemonics. She believes that it is the power of the internet and cyberspace that has made it possible for her to be herself and follow her passion.

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THE STORY OF SUBHA

A postgraduate student from NIFT Delhi, Subha worked with a retail ethnic brand for three years and realised how people had switched to Western outfits and how the Sari (an apparel worn by Indian women) was losing its appeal. She founded HATHKARGHA (meaning Handloom), an initiative to bring handpicked pieces from across Indian states to customers through her own website and mobile App. She confides that it is the power of the internet and the cyber world that has made possible the dreams of many others like her to materialize.

These are not just stories of Richa and Subha, but many other female entrepreneurs who have leveraged the agility benefits of cyberspace and the digital platforms (Salmela et al., 2022) to paint the entrepreneurial sky with bold strokes of pink. Opening up a world of opportunities, digital platforms have helped female entrepreneurs overcome many of the traditional barriers they faced in the business world (Duan et al., 2021). Consequently, a growing number of women are now opting to launch their own innovative enterprises, challenging the traditional breadwinner-caregiving model (Azmat & Fujimoto, 2016; Sajjad et al., 2020). Providing increased access to customers (Hair et al., 2012), reduced costs (Sussan & Acs, 2017), improved flexibility (Nambisan, 2017), access to resources (Camacho & Barrios, 2022), and enhanced speed of business scaling (Rialp-Criado & Rialp, 2020) among other things, digital entrepreneurship is now presented in popular discourse as a means to empowerment. However, it is important to note that there exists gender disparities in digital entrepreneurship, and women may face unique challenges such as online gender-based violence, lack of access to digital infrastructure and skills, and limited representation in tech-related fields (Dy, 2022; Luo & Chan, 2021). On one hand, digital platforms have helped to level the playing field for women entrepreneurs, giving them the resources they need to succeed in the business world. On the other hand, however, the reinforcement of gendered disadvantages and misogyny continues even on digital platforms. This leads to a state of indecisiveness regarding the potential of digital entrepreneurship to emancipate women from the shackles of historical stereotyping and vulnerabilities.

Literature has shed some light regarding the emancipatory potential of digital female entrepreneurship. For instance, Leong et al. (2022) identify constraints and enablement necessary for the enactment of digitally enabled emancipation. Examining the experiences of entrepreneurs who recently became employers in the United Kingdom, Williams et al. (2021) finds that during this transition, perceived constraints become more readily experienced, and emancipation is never fully realised. Exploring women entrepreneurship in Saudi Arabia, McAdam et al. (2020) find that women in Saudi Arabia use digital entrepreneurship to transform their embodied selves and lived realities rather than to escape gender embodiment as offered by the online environment. Dy (2022) similarly posits that key digital entrepreneurial resources are structurally distributed, rather than agentially obtained. Other studies (Dy et al., 2018; Kang, 2022; Hassan et al., 2021; Wheadon & Duval-Couetil, 2019) also attempt to highlight the gender gaps in digital entrepreneurship. Overall, while the studies invaluably contribute to 'gender-technology-entrepreneurship' trisection, they are insufficient to offer an understanding of the mechanisms by which digitalization shapes women's engagement into entrepreneurship. This is due to the changing entrepreneurial ecosystem (Cao & Shi, 2021; Wurth et al., 2022) in terms of the demography, the technology and the market dynamics among other factors, which calls for further research at the "technology-gender- entrepreneurship" interface (Foss et al., 2019; McAdam et al., 2019; Ughetto et al., 2020; Vracheva & Stoyneva, 2020). Also, the majority of current research concentrates on industrialised economies (Foss et al., 2019; Sharma, 2022) highlighting their context specificities, which limits the insights from developing economies. This is troublesome since barriers to entrepreneurship, particularly for women entrepreneurs, are usually more severe in developing countries (Agarwal & Lenka, 2018; Goyal & Yadav, 2014).

All of this comes at a time when scholars are beginning to conceptualize digital agility as the "ability of a unit to capitalize on opportunities/threats induced by generative digital technologies under constrained or unfolding time frames" (Salmela et al., 2022, p. 1081). Interestingly, most of the research that conceptualizes digital agility, places its concept at the level of firms or organizations (Grover, 2022; Sambamurthy et al., 2003; Xia et al., 2022), and there are relatively few studies that conceptualize individuals' digital agility (Seale et al., 2010), despite the fact that this idea has virtues for people in contemporary times. For instance, McAdam et al. (2019) highlight that digital agility is critical in overcoming the limits and problems experienced by women entrepreneurs in the institutional environment of digital entrepreneurship. Further, Karimi and Walter (2021) establish that entrepreneurial agility is especially critical for female entrepreneurs to successfully adapt to digital disruptions and drive innovation in their firms. Overall, digital female entrepreneurship is intimately tied to digital agility, as it assists female entrepreneurs in navigating institutional voids, overcoming information asymmetry, responding to digital disruption, and developing new solutions. However, there is little evidence in the extant literature as to how the affordances and barricades of digital entrepreneurship orchestrate to shape the experiences of female entrepreneurs who try to capitalize on the opportunities presented by digital platforms.

The authors, therefore, located a significant research gap for exploring digital female entrepreneurship based on three premises. First, prior studies have overlooked the extent to which digital entrepreneurship subdues the barriers faced by women entrepreneurs. Second, extant research has predominantly focussed on advanced economies, limiting insights as to how the phenomenon is experienced and felt in developing countries. And lastly, there is a lack of empirical studies at the trisection, and qualitative studies are even more limited. Therefore, the authors formulate their research questions as follows:

RQ1: How do digital platforms help female entrepreneurs subdue gender-specific barriers of entrepreneurship?
RQ2: What are the barricades that these female entrepreneurs experience in their digital fempreneurship journeys?

In order to better comprehend such intersectional dynamics, the authors utilized the analytical lens based on cyberfeminism to understand how these fempreneurs transcend gendered barriers through the use of digital platforms. The interpretative lens of cyberfeminism was essentially chosen because of its equal camber on both sides of the feminist debates, which suits the premise that gendered features are both reinforced and erased in cyberspace.

The authors find that digital platforms offer a number of affordances to women entrepreneurs in order to chisel a female entrepreneurship groove. At the same time, there exist barriers that prevent them from doing so. The issue, therefore, turns into a paradox of emancipation, leaving the authors uncertain as to the emancipatory potential of the platforms. In terms of imprinting, the authors also uncovered a paradox of conquest that left them wondering whether digital platforms had made a sharp incision on society, or whether society has left a larger shadow on digital platforms. They thereby contribute to the studies at the trisection of gender-technology-entrepreneurship by extending the idea of cyberfeminism and paradox.

The rest of this study is structured as follows. The literature review is presented in the next section, which also highlights the research gap by describing the challenges and solutions faced by female entrepreneurs, the potential of digital entrepreneurship, and cyberfeminism. The subsequent section outlines the methodology employed for exploring the research questions. The findings of the semi-structured interview follow next. In the discussion section that follows the findings, the contributions of the study in the backdrop of prior literature are highlighted. Lastly, the conclusion along with implications for theory and practice are discussed and eventually suggestions for future research have been offered.

LITERATURE REVIEW

Female Entrepreneurship: Barriers and Solutions

Female entrepreneurship, defined as the businesswomen themselves and their businesses (Hechavarria & Brieger, 2019) has grown to become a mature area of enquiry within the entrepreneurship domain. The theme draws continued interest and attention due to the valorous requirements of entrepreneurship and the constraining effects of gender, which culminate into promising spaces of interesting theoretical advancements. In investigating the female entrepreneurship landscape, scholars have predominantly focused on the 'opportunities and challenges to female entrepreneurship' (Erogul et al., 2019; Strawser et al., 2021), 'barriers and enablers of female entrepreneurship' (Nguyen et al., 2021; Yunis et al., 2018), 'risks and benefits of female entrepreneurs' (Isiwu & Onwuka, 2017), 'psychological and emotional determinants of female entrepreneurship' (Cabrera & Mauricio, 2017; Huang et al., 2022), and 'outcomes of female entrepreneurship' (Ojong et al., 2021), among others. However, most of these studies have been conducted in a particular region/country, thereby highlighting country/region-specific characteristics, leaving room for an exhaustive and coalesced understanding of the barriers and enablers. In reviewing the existing literature, the authors attempt to present a consolidated understanding of the barriers and their solutions in the sub-sections below.

The Gendered Barriers to Female Entrepreneurship

While literature is affluent about the barriers females face in crafting any type of occupation, the authors specifically focus on barriers females face in pursuing entrepreneurship, more specifically on those fempreneurial barriers that are 'gendered.' These are:

- *Imposter Fears:* The impostor phenomenon is characterised as a person's self-perception of 'phoniness,' or the tendency for people to ascribe their success to chance or deception rather than their own ability (de Vries, 1990; Gadsby, 2022; Kolligian & Sternberg, 1991). While studying the role of imposter fears in the development of entrepreneurial identity, Ladge et al. (2019) conclude that such fears have the potential to undermine the relationship between entrepreneurial identity and women's growth aspirations. Similarly, Thébaud (2010) reveals that women are far less likely to believe they are capable of being entrepreneurs. This gender differential in self-evaluations accounts for a significant portion of the gender gap in entrepreneurship.
- *Access to Finance:* Due to a persistent bias against female entrepreneurs, venture capitalists invest more frequently in men than in women (Coleman & Robb, 2016; Marlow & Patton, 2005). There is empirical evidence that female entrepreneurs in Bangladesh are treated much differently than males by financial institutions (Shoma, 2019). Investigating "perceptions" of gendered cognitive and normative institutions of Tanzanian women-owned enterprises, Naegels et al. (2018) conclude that female entrepreneurs "perceive" they have insufficient access to financial knowledge, which prevents them from applying for credit. Villaseca et al. (2021) further identifies gender bias both on the supply and the demand side of entrepreneurial financing. Women, thus, face significant obstacles participating in entrepreneurship because of the entrenched, male-dominated hierarchies in financial sectors.
- *Entrepreneurial Networking:* Studies have demonstrated that in terms of advantages traded, women's professional networks are frequently weaker and less successful than those of males. Batjargal et al. (2019) bring out that male entrepreneurs benefit more from their larger social networks than female entrepreneurs. According to Greguletz et al. (2019), women are less likely to create successful networks than males. This is brought on by both the internal resistance of women to utilising social relationships and the external obstacle of their structural exclusion from powerful networks. Hence, entrepreneurial networking remains a major barrier both for the establishment as well as the scaling up of women-owned entrepreneurial ventures.

- *Societal Gender Role Segregation:* An entrepreneurial career is socially negated for females. According to social cognitive theory (Bandura, 2005), people's social surroundings have a significant impact on how they think and, ultimately, behave. Therefore, women who want to start and operate their own businesses face challenges due to the "think-leader, think-male" stereotype (Jackson et al., 2007; Schein 2001). When researching the challenges of Pakistani women entrepreneurs, Hafeez et al. (2021) discovered that gender norms and social segregation have a big impact on women's career decisions. The gender gap in STEM-entrepreneurship results from the systemic disadvantages in social structures, according to Kuschel et al. (2020). Thus, gender role segregation remains a problem, as social norms continue to restrict occupational choices for women.
- *Lack of Role Models:* Entrepreneurial role models are especially essential for young women since they serve as prospective role models for them to study and emulate. Entrepreneurial role models aid in transforming aspirations of 'who I could be' and 'what I could achieve' into actualized potential (Radu & Loué, 2008). Austin and Nauta (2016) look at self-efficacy and exposure to entrepreneurial role models as predictors of women's entrepreneurial intentions. They discover a positive relationship between entrepreneurial role model exposure and entrepreneurial intentions. Thus, the "everybody is capable" view of entrepreneurship is challenged due to the lack of entrepreneurial superwoman role-models (Byrne et al., 2019).
- *Entrepreneurial Knowledge:* There is a general dearth of female students across institutions in entrepreneurship courses. While Elliott and Timulak (2021) conclude that entrepreneurship education has a favourable impact on entrepreneurial intent, Mehtap et al. (2017) observe that a good supporting education system may, only in part, diminish the perception of possible impediments for entrepreneurship. Wannamakok and Chang (2020) similarly draw the conclusion that female respondents' entrepreneurial goals are significantly and favourably influenced by their entrepreneurial knowledge. Due to lack of entrepreneurial knowledge among women, they miss out on opportunities to initiate an enterprise, expand their business, find collaborators and vendors, and build social capital.
- *Attitude Toward Risk-Taking:* Prior research has revealed that women's propensity for taking risks is lower compared to men (Akehurst et al., 2012; Wagner, 2007), and entrepreneurs are generally risk takers. It is also found that attitude toward risk-taking has a significant impact on the desire to start one's own business (Yoopetch, 2021). Thus, a general lack of risk-taking attitude remains a barrier for women undertaking entrepreneurship.

While there might be other barriers to women taking up entrepreneurship (for example, 'work-family life balance' (Naguib, 2022); 'entrepreneurship training' (Gavigan et al., 2020); and 'unequally shared caring responsibilities' (Wu et al., 2019), among others, the authors believe that most of them can be broadly classified into one of the seven barriers explained previously.

The Solutions to Female Entrepreneurial Barriers

Given the obstacles that women face in pursing entrepreneurship, various stakeholders have ventured out in addressing these obstacles in varied ways. Scholars have also evaluated and documented these solutions from different socio-cultural contexts. For instance, Mersha and Sriram (2019) bring out evidence from Ethiopia to inform that *targeted training programs* enable women to more clearly recognize entrepreneurial opportunities and achieve business growth. Simarasl et al. (2022) further inform that *institutional support* enhances the entrepreneurial self-efficacy and performance of female entrepreneurs in constrained contexts. Within the entrepreneurial ecosystem of Oman, Hammami et al. (2022) state that *government's entrepreneurship efforts* contribute to the success of female entrepreneurship. Exploring female entrepreneurship in the United Arab Emirates, Erogul et al. (2019) learn that *developing cooperation with men* is a viable and complementary means to addressing contextual challenges and achieving empowerment. In the case of U.S. start-ups, Yacus et al.'s (2019)

analysis reveals that women-owned *businesses in "feminine industries"* are more likely to achieve high growth than women-owned firms in "non-feminine industries." Roos (2019) links *embeddedness* and gender to empirically demonstrate how becoming embedded in the local community, women entrepreneurs were able to take charge of the *development of a female network* and challenge gender structures of entrepreneurship. Ngoasong and Kimbu (2019) also bring out that highly *embedded women entrepreneurs* have easy access to resources that result in high-growth businesses in Cameroon. Devine et al. (2019) demonstrate that female entrepreneurs can achieve high growth by leveraging *top management team education, venture capital investment, and ownership dilution.*

It is noteworthy that most of the solutions suggested and captured by literature only eclipse the barriers faced by female entrepreneurs. The solutions mentioned do not simply correspond to the alleviation or removal of the barriers, and are insufficient to eliminate them, leaving entrepreneurship gendered. Hence, an *elixir vitae* (i.e., a complete fix) to the elimination of the gendered nature of entrepreneurship seems largely unthinkable.

More recently, scholars have purported the emerging field of *digital entrepreneurship*, as a solution to the barriers traditionally faced by women entrepreneurs (McAdam et al., 2019). Digital entrepreneurship may be defined as "the pursuit of opportunities based on the use of digital media and other information and communication technologies" (Davidson & Vaast, 2010, p. 2). The digital environment has been presented as a unique entrepreneurial space owing to the assumptions of its neutrality and meritocratic functionality, where gendered biases and barriers can be transcended. Scholars have hailed digital entrepreneurship as being democratic (Kelly & McAdam, 2022; Nambisan, 2017) and emancipatory (McAdam et al., 2019, Ughetto et al., 2020), affording flexibility, generative capabilities, and network effects (Zaheer et al., 2019). While in the last few years, academic research has acknowledged the positive role that digital technologies play in entrepreneurial ecosystems (Brush et al., 2019; Sussan & Acs, 2017), the gender perspective has remained under explored. More specifically, very little is known about the extent and the manner in which digital entrepreneurship may subdue the barriers traditionally faced by women entrepreneurs. The next section therefore attempts to significantly enlarge and thicken one's understanding by synthesizing and summarizing the promises held by digital entrepreneurship for female entrepreneurs.

The Promises of Digital Fempreneurship, Digital Agility, and Cyberfeminism

Digital Fempreneurship

Recent popular discourse evinces digital culture as offering women new entrepreneurial horizons that are unconstrained by conventional societal prejudices (for example, gender, race, class, etc.). Indeed, "digital entrepreneurialism has now become a much-vaunted idea" (Duffy & Hund, 2015, p. 2), bolstered by a plethora of "how-to materials" and "self-branding methods" aimed at empowering individuals (Duffy & Hund, 2015; Marwick, 2014). In terms of equalising entrepreneurial prospects for men and women, digital entrepreneurship has been hailed as a "great leveller" (Dy, 2022; Kelly & McAdam, 2022).

Scholars have empirically evaluated the potential and the benefits digital entrepreneurship brings. For example, Sigfusson and Chetty (2013) study the use of social network sites for developing and harnessing network relationships in the context of software international entrepreneurs in Iceland and conclude that social networking technologies enable businesses to expand internationally by fostering global connections. Studying along similar lines within the context of Bulgarian female-led small and medium enterprises (SMEs), Pergelova et al. (2019) find that digital technologies positively impact SME internationalization through the mediation of international market intelligence. Fellnhofer (2022) further brings out that digital technologies alert any kind of individual to potential entrepreneurial opportunities, thereby boosting psychological starting drivers.

These benefits directly impact female entrepreneurship and serve as promises for equalizing the entrepreneurship landscape. For instance, McAdam et al. (2019), drawing upon six biographical narrations of female digital entrepreneurs in Saudi Arabia, demonstrate that digital technology can

have significant emancipatory potential for women entrepreneurs, which helps alter the institutional context of entrepreneurship. Similarly, interacting with digital entrepreneurs from Egypt, Miniesy et al. (2022) conclude that female entrepreneurs are relatively more empowered than male youths under the ambit of digital entrepreneurship. In evaluating the emancipatory potential of digital entrepreneurship, Leong et al. (2022) inform that digital entrepreneurship is used for three types of digital enablement (i.e., to emulate services, to aggregate capital, and to equalise opportunities). In the Colombian all-female Facebook-based community, Camacho and Barrios (2022) find that female entrepreneurs utilize social media platforms for four entrepreneurial outcomes (i.e., identifying business opportunity, building a market, trust building, and value creation). A similar conclusion about the use of digital tools in business promotions is empirically brought about by Jose (2018) while studying female emigrant entrepreneurs in United Arab Emirates (UAE).

Alternatively, scholars have also educated readers about the gender gaps in entrepreneurship that are mirrored on digital platforms and the internet. Wheadon and Duval-Couetil (2019), for example, argue that deep cultural and cognitive linkages that identify both technology and entrepreneurship as masculine forge constraints for women as these settings meet. While researching women entrepreneurs on Instagram, Heizmann and Liu (2022) discovered that glorified conceptions of women's economic empowerment in digital spaces obfuscate the continuity of systemic and structural oppression. Similarly, OzkazancPan and Clark Muntean (2018) investigate how different gendering practises, both individually and collectively, work to marginalise women technology entrepreneurs, fixating on the intricate intersections of networking, organisational practises, and legitimised gender norms in society. Using a critical-social perspective, Dy (2022) identifies theoretical conflicts between the idea of the internet as a democratic space and the multiple hurdles to entry that result from uneven access to socially dispersed resources. Luo and Chan (2021), while studying female entrepreneurs from Shenzhen, China, conclude that the subordination of female digital entrepreneurs is reproduced even in the digital world.

Scholars have used several theoretical lenses to study the intersection of female entrepreneurship and digital entrepreneurship. For example, individual differences in the theory of gender and information technology (Suseno & Abbott, 2021), cyberfeminism (McAdam et al., 2020), theory of institutional voids (McAdam et al., 2019), resource-based view (Pergelova et al., 2019), emancipatory endeavours theory (Leong et al., 2022), and the feminist geography approach (Luo & Chan, 2021), among others. The authors adopted cyberfeminism as their lens of enquiry for two main reasons. First, they acknowledged that both sides of the arguments (i.e., digital emancipation and digital replication of gendered subjugation) hold merit, which creates a firm ground for critical cyberfeminist scholarship. The cyberfeminist lens enables one to understand how gender biases and discrimination can be embedded in technology, and how this can perpetuate inequalities and reinforce existing power structures. Second, cyberfeminism is characterized by the intent to break down gender inequalities through a series of digital initiatives and the authors were interested in examining the extent to which digital platforms have succeeded in emancipating women, thereby making cyberfeminism a reasonable choice.

Digital Agility and Digital Fempreneurship

Digital agility and digital fempreneurship are two interconnected concepts in the digital era. As stated earlier, digital agility is an organization's ability to quickly and flexibly employ digital solutions to achieve its strategic goals (Sambamurthy et al., 2003). Such ability involves, but is not limited to, the utilization of digital resources, such as digital platforms and digital knowledge options to enhance operational agility, customer agility, and partnering agility). In relation to this, digital fempreneurship refers to the entrepreneurial activities and initiatives undertaken by women in the digital space. The authors see a close intersection of the two concepts. To illustrate, higher levels of digital process reach and richness should promote operational agility, which, in-turn, can benefit digital fempreneurs by enabling a rapid sequencing and coordination of business services along

the value chain (Sambamurthy et al., 2003). Digital process options and digital knowledge options facilitate customer agility, allowing digital fempreneurs to create virtual communities, customize products, and deliver product configuration knowledge to meet the specific needs and preferences of their target audience. Furthermore, greater reach and richness of process and knowledge options that could enhance a firm's partnering agility, should also enable digital fempreneurs in rapidly seeking and integrating new competencies within their value network (Sambamurthy et al., 2003).

Cyberfeminism

"Cyberfeminism" is defined as "sporadic, tactical, and contradictory" (Flanagan & Booth, 2002, p. 12) collections of theories, debates, and practises that emphasise the relationship of "cyberspace, the internet, and technology." According to cyberfeminists, modern technology is an essential part of a new social and economic reconfiguration that appears to strengthen the positions of women. It started as a movement in the 1990s, re-theorizing gender, the body, and identities in connection to technology and power using feminist concepts and cyberculture. It contends that in order to counter the pervasive inequality experienced by women, the hierarchical and oppressive logic highlighting social boundaries and priorities that men enjoy over women, the internet, and cyberspace can be a safe place that may restructure the socio-political dynamics. Cyberfeminism is concerned with opposing the accepted and recognized male dominance in the advancement and employment of online technology.

The work of Shulamith (1970), which considered the prospects of utilising technology to end sexism by relieving women from bearing children in order to establish nuclear families, may be viewed as a predecessor to much of cyberfeminism, since it fathomed the possibility of dismantling patriarchy through technology. Donna Haraway (1985) significantly inspired cyberfeminism with her essay, *A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century* (Haraway, 1985). Her work introduced the possibility for an entirely new ontology premised on the combination of machines and organisms, creating "cyborgs." She promoted the idea of a socialist, feminism-focused cyborg that questions the fixed identities and "grids of control" operating to confine women and other oppressed groups. Women are naturally adapted to utilise the internet, according to Sadie Plant (1997), an early proponent of cyberfeminism, since both are similar in nature: non-linear, self-replicating systems, concerned with forging connections (Plant, 1997). She sees the internet as a secure space where women can and should take opportunities to promote themselves and challenge male privilege. Plant views the Web as innately feminine, referring to the process of "weaving," an activity typically associated with femininity, in contrast to Haraway, who sees cyberspace activities as "networking."

Despite this idealistic outlook, it is now becoming clear that feminist concerns frequently surface in online settings. According to Boyd (2009), Dy (2022), Marwick (2014), and others, socioeconomic inequality tends to be replicated or aggravated online as girls and women utilise the internet in complicated ways that both reject and reinforce gender hierarchies. (Cummings & O'Neil, 2015; Daniels, 2009). Although some cyberfeminists argue that the digital sphere has the potential to improve gender relations (Oleksy, Just, & Zapedowska-Kling, 2012), it is widely acknowledged that men continue to dominate in the majority of contexts, with entrepreneurship being no exception (Alfrey & Twine, 2017; Wajcman, 2004).

The theoretical lens of cyberfeminism is relevant in the case of female entrepreneurship as cyberspace both reinforces and shrinks gendered characteristics of entrepreneurship at the same time. The choice of cyberfeminism is essentially to answer the call for research to incorporate broader theoretical perspectives to examine the interface of gender and digital entrepreneurship (Wheadon et al., 2019; Zaheer et al., 2019).

The Research Gap

Based on the analysis of literature presented, the authors located the research gap based on four important conclusions. First, while scholars have advanced the literature around 'entrepreneurship,'

'digitization agility,' and 'gender,' an integrative understanding of the three is still lacking. Second, while studies have cherished the emancipatory potential of digital entrepreneurs, there has not been any study that has evaluated the extent to which digital entrepreneurship actually subdues the barriers faced by women entrepreneurs. Third, existing studies that have often adopted either explanatory/ descriptive approaches and empirical studies at this trisection are few, and qualitative studies are even more limited. And lastly, the majority of the studies have been predominantly conducted within Nordic or the Arabic contexts, highlighting the country-specific characteristics of these contexts, limiting insights from developing contexts like India, where gender equality and gender stereotypes simultaneously operate.

Thus, this study aspires to address this gap by drawing on major areas of cyberfeminist debate to examine female entrepreneurship facilitated by cyberspace and digitization in the context of developing economies.

METHODOLOGY

A qualitative interpretative approach was used (Cunningham et al., 2017; Elliott & Timulak, 2021; Willis et al., 2007) to investigate the research questions. Such an approach considers the multi-dimensionality and complexity of the question under examination (Klien & Myers, 1999). Furthermore, such an approach facilitates a holistic and contextual analysis of the experiences of female digital entrepreneurs, rather than a reductionist and isolationist one. This was important since the authors sought to highlight the realities of female digital entrepreneurs in a developing context such as India, where women empowerment and suppression co-exist.

Sampling and Data Collection

A theoretical sampling approach was used (Hassan & Pandey, 2021; Marshall & Rossman, 2014) and the authors contacted such female entrepreneurs who based their enterprises on digital platforms. The authors focused on Indian women business owners who founded their companies alone or in collaboration with others, were in control of companies that used digital technology, and had been in business for at least two years. Further, snowballing was used to connect to other such participants. This process continued until each finding was supported by multiple participants, and the state of theoretical saturation, i.e., additional interviews could not add or refine the emergent themes, was reached (Glaser & Strauss, 2017). This resulted in a total of 12-participants: four YouTubers, three Instagrammars, three sellers registered with Amazon/Flipkart, and two app-based entrepreneurs. The sample reflected heterogeneity in terms of age, educational qualification, number of years of entrepreneurial experience, and the nature of the participants' enterprises. The demographic snapshot of the participants is presented in Table 1.

Based on an interview guide, the authors conducted semi-structured interviews with these female entrepreneurs through videoconference. The interview guide helped provide a defined direction and helped collect reliable and comparable qualitative data (Kallio et al., 2016). The interview stretched from 40 minutes to 90 minutes, with an average duration of 68 minutes. The interviewees gave their informed consent to participate in and record the interviews a priori. Each interview began with a brief explanation of the session's expected time and the promise of data confidentiality. The responders were asked to give a brief description of their career trajectory. The respondents were then questioned about their motivations for starting their own enterprises and the steps they had taken to shape their entrepreneurial journeys. In addition, the authors questioned participants about the facilitators and hurdles they faced, as well as how they dealt with them. The authors tried to maintain openness and variety during the interviews by not using the interview guide strictly and by including a number of open-ended, probing questions.

Table 1. Demographic profile of the participants

Name (Pseudonym)	Educational Qualification	Age (yrs.)	Entrepreneurial Exp (yrs.)	Nature of Enterprise
Shubha	Post-Graduate (Fashion Designing)	26	5	Online Sari selling through website and mobile app.
Richa	Doctor of Philosophy (PhD) in Management	42	8	Online teaching through YouTube and Website.
Arihana	Master of Science (M.S.) in Applied Physics	28	3	Instagrammer.
Kanchan	Doctor of Philosophy (PhD) in Electrical Engineering	30	4	Poetry through YouTube.
Ayushi	Master of Commerce (M. Com)	24	2	Sketching through Flipkart/Amazon.
Honiya	Bachelor of Science (B.Sc.)	22	3	Instagrammer.
Shikha	Bachelor of Arts (B.A.)	21	2	Yoga through YouTube.
Nishtha	Master of Technology (M. Tech) in Computer Science	35	6	Projects through Flipkart/Amazon.
Shilpi	Master of Laws (LLM)	29	4	Instagrammer.
Joyline	Bachelor of Technology (B. Tech) in Civil Engineering	23	2	Selling Costumes for gods through app.
Keerti	Intermediate	36	5	Online Cooking through YouTube.
Apeksha	Master of Social Work (M.S.W.)	32	4	Selling Goat Milk Powder through Flipkart/Amazon.

Data Analysis

The Gioia methodology inspired our inductive research (Hassan & Jatin, 2021, 2020; Gioia et al., 2013). The Gioia guide is described as a systematic method to novel metacognition (Gioia et al., 2013, p. 15), and so served as a rigorous way for adhering to an inductive approach. The authors began reading and re-reading the data to achieve an all-inclusive understanding (Gioia et al., 2013). Data analysis continued concurrently with data collection, allowing the authors to tailor their interviews depending on the insights they discovered (Glaser & Strauss, 2017).

In the first analysis stage, the authors focused on what the data said about participants' experience of being a female digital entrepreneur. They identified the informant excerpts, which explained how digital platforms facilitated their digital initiatives, and then, going line-by-line, they grouped similar excerpts into a long list of provisional categories, which eventually birthed the dominant 1st-order categories. Next, the authors shifted to a modified axial coding (Strauss & Corbin, 1998) by seeking similarities and differences amongst categories to identify 2nd-order themes (Gioia et al., 2013), which explained the affordances provided by digital platforms. The authors identified five affordances that digital platforms provided: *digitally facilitated self-efficacy, digitally eased financial requirements, digital networking opportunities, digital learning opportunities,* and *digitally induced social sensitization.* The process of rotating from constant comparisons to code abstraction from the two previous levels in the third stage allowed the authors to arrive at the aggregate dimensions, *The Digital Fempreneurship Groove,* constructed upon five themes. The authors similarly reached the aggregated dimension, *The Barricades in the Labyrinth Groove,* which was constructed upon five other second-order themes, *Challenged Digital Self-Efficacy, Constrained digital financial options, Dysfunctional Digital Networks, The Inadequacies of Digital Learning* and *Slow Pace of Social Sensitization.* The authors were able to superintend a sizable body of data to gather evidence relating to women's entrepreneurship as recounted by the participants by going back and forth between data,

codes, and interpretations (Glaser & Strauss, 2017). They attempted to bring qualitative rigour to the presentation of their findings by regularly discussing possible interpretations of the data on a frequent basis, with an emphasis on the coding of emergent themes and dimensions.

Trustworthiness of the Process Employed

Miles and Huberman (1994) present a list of situations in which qualitative data are "strong" in respect to data collecting processes (for example, employing "informal and personal settings" and interacting with respondents through "one-on-one conversation"). The majority of the interviews took place in settings that exemplified both of these qualities. Furthermore, Miles and Huberman (1994, p. 263) bring attention to "elite bias," which occurs when evidence from specific informants is given undue weight. At the outset, all transcripts and data were given equal weight.

Another key quality requirement emphasised by Corley and Gioia (2011) is the confirmation of findings across several informants, which is utilised "to limit the risk of issues related with retrospective reports." Furthermore, while one author was largely responsible for coding the raw data, the other authors played an important "challenger role" in order to avoid depending exclusively on the interpretations of one data analyst. By questioning early codes, debating anomalies in the data, and working together to reach the optimal coding of data themes and final dimensions, the authors attempted to adhere to Lincoln and Guba's (1985) guidelines for credible, qualitative research. These standards include "credibility" (assurance that research findings reveal the "truth"), "confirmability" (neutrality of the researcher), and "dependability" (i.e., the consistency and repeatability of findings).

Once researchers had achieved their first conclusions, member checks served as "the most reasonable source of verification" (Miles and Huberman, 1994, p. 275). Receiving input from respondents a second time fulfilled two of Lincoln and Guba's (1985) four trustworthiness conditions: "credibility" and "confirmability." Accordingly, after abstracting second order themes, the authors verified the coding with three of the participants. In addition to the two previously stated requirements, Lincoln and Guba (1985) emphasise the "transferability" of results (i.e., the ability to adapt findings to different situations). Miles and Huberman (1994) refer to this criterion as "external validity," which tackles the problem of how well findings may be translated to different contexts. The authors met this criterion by thoroughly detailing the demographics of their sample and the data collecting procedure, and by clearly identifying the specific respondent who provided each comment that is cited. The authors do, however, acknowledge that some characteristics of their study sample may restrict the generalization of the results.
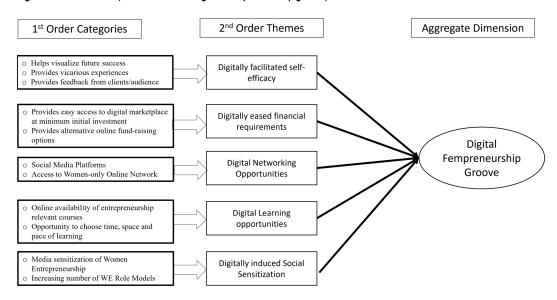
FINDINGS

How Digital Platforms Help Chisel a 'Digital Fempreneurship Groove'

This study shows how a "female entrepreneurship groove" is created through the application of digital platforms, making them the centre of gravity for aspiring female entrepreneurs. The authors found that *digitally facilitated self-efficacy, digitally eased financial requirements, digital networking opportunities, digital learning opportunities,* and *digitally induced social sensitization* are properties that afforded the widening of a digital fempreneurship groove. Figure 1 illustrates the data analysis process by revealing the data structure.

Digitally Facilitated Self-Efficacy

The first theme that emanated from the analysis was *digitally facilitated self-efficacy.* The participants articulated and explained how digital platforms create an atmosphere that enables women entrepreneurs to self-generate motivation. They share that the *digitally facilitated self-efficacy* is generated by an amalgamation of three interconnected digital affordances of the platforms. First, digital platforms help

Figure 1. Data structure (the facilitators of digital entrepreneurship groove)

in the development of aspirations thereby helping them to *visualize future success*. When reflecting on her decision to launch a YouTube channel, Keerti shares:

It gave me an opportunity to feel that I was worth something. I wanted to be somebody that people would look up to and say look what she did against all odds. I saw so many people teaching audience to prepare delightful delicacies on YouTube and I believed I could also do it. There started my YouTube channel and here I am today.

It is notable how Keerti's entrepreneurial trajectory was influenced through the vicarious experiences of others and how it gave her confidence in the path she picked for herself. Similarly, Honiya and Shikha emphasized the importance of seeing others successfully navigate the difficulties associated with digital entrepreneurship. Honiya elaborates how digital platforms *provide vicarious experiences* strengthening the connection between dreams and goals:

Initially unsure if pursuing a career as an Instagrammer was the right path for me, given my non-affluent background, I hesitated to believe that someone like me could succeed in this. However, my perspective shifted when I encountered a fellow Instagram influencer, introduced to me as a mutual acquaintance, who recounted her personal journey from humble beginnings to phenomenal success. This encounter evoked a profound emotional response, instilling in me a newfound belief in my own ability to achieve similar levels of success.

Thirdly, digital platforms make it easier to get *feedback from customers or audiences*, which not only helps in understanding the experiences and needs of customers, but also helps female entrepreneurs perform better and make wiser decisions. Ayushi elaborates on how she improved after the feedback she received with each delivery:

I initially drew my initial composition and outline using 2H pencils. I just started using the 6H pencil—a very light pencil that doesn't show through the paint and is ideal for shading—after a client

made the recommendation. While another sketcher outsourced her project and asked me to modify the sketch I sent her, I similarly mastered the technique of smudging and blending.

Thus, the infusion of *self-efficacy through digital platform* provides a sense of purpose and direction to female entrepreneurs who look up and see the beauty of their aspirations, believe in them, and try to follow where they lead.

Digitally Eased Financial Requirements

Digitally eased financial requirements emerged as the second narrative theme that facilitated chiselling the female entrepreneurship groove. Joyline comments in this regard:

Unlike traditional businesses that often require significant upfront investments, digital entrepreneurship often has lower entry barriers, allowing women with limited financial resources to start their ventures with minimal capital. Digital platforms offer affordable marketing and advertising options, reducing the need for expensive offline promotional activities.

Acknowledging these benefits, the other participants acquiesced the importance of digital technologies for enabling *alternative online fund-raising options* for their business. Apeksha explains:

My initial funding came through debt. However, as my business expanded, I needed more funding. So this time, I posted a detailed description of my company on a crowdfunding platform, outlining its objectives, strategies for generating profit, the amount of funding I required and the reasons thereof, etc. This allowed customers to read about the company and contribute money if they liked the concept. The best part was it helped in marketing the product alongside providing easy financing.

The female entrepreneurs acknowledged yet another way in which digital platforms ease the financial requirements of entrepreneurship i.e., by providing *access to the digital marketplace at minimum initial investment*. Subha and Nishtha appreciated the role of in-house supply chain division of digital platforms that reduce the capital requirements of logistics and supply-chain and allows anyone to sell their products. Nishtha elaborates:

Flipkart has a network of warehouses, fulfilment centres, and delivery hubs. Because of optimised routes and real-time tracking facility, it's much simpler for merchants like myself to focus on continually developing my product rather than worrying about shipping and logistics. I was able to leverage Flipkart's seamless logistics as soon as I registered as a seller.

The participants further elaborated on how the possibility of operating a digital business without a physical location and relatively little capital requirement makes it more feasible for those with lower levels of savings and capital to pursue digital entrepreneurship.

Digital Networking Opportunities

The third theme that helped female entrepreneurs cleave the "female entrepreneurship groove" came out to be the *digital networking opportunities* provided by the digital platforms. The participants acquiesced that the digital platforms enable seemingly distant people to exchange and share information. The power of *social media* in forging connections is explained by Honiya:

I was managing everything all by myself initially. As business grew, I needed someone to take over the video-editing task. I posted an advertisement on my social media account, and I was overwhelmed

with the kind of response I had. I have similarly used my Instagram page much often to connect with many collaborators and partners.

Shilpi also shares how LinkedIn, a social media platform, helped her connect with her business partner:

The power of social media cannot be overstated. It was crucial in my entrepreneurial path since it allowed me to connect with my current business partner on LinkedIn. Currently, I am in charge of content creation and marketing, while she does the consultation work.

Further, digital spaces also provide women entrepreneurs to build *women-only networks* where these women entrepreneurs find opportunities, get career guidance from mentors, access career resources, and be a part of a community exclusively for enterprising women. Joyline tells us about how such an online women-only network has helped her in her business:

I got in touch with a lot of people through SHEROES, the women-only community founded by Sairee Chahal. I was finding it difficult to scale my business and therefore I posted my concern on their website. This way I got connected to my mentor, who has been a constant source of help. I have likewise connected with many women entrepreneurs who have passed on to me business opportunities I could have never had away from SHEROES. It is trustworthy and promising and I think every woman should look through it.

Similar accounts from other participants, including Kanchan and Shilpi, were also recorded, which seemed to indicate that there was general agreement on the prospects afforded by digital platforms for establishing connections, which proved to be inexpensive ways to promote business, grow client base, and seek funding.

Digital Learning Opportunities

The fourth theme emanant from the narratives was found pertaining to *digital learning opportunities.* Digital platforms and internet have accelerated a paradigm shifts in learning environment by affording learning to happen "anywhere, anytime and anyhow." The role of *online courses on entrepreneurship* is apparent in Richa's account:

As I launched my channel, I had no idea about YouTube marketing, search engine optimization, strategic content creation etc. I gradually learned all these online through digital learning platforms like LinkedIn Learning, Eduonix, YouTube Academy, etc.
These online courses are mostly cost-effective, which makes them a more affordable option compared to traditional forms of education. Joyline elaborates:
Launching my business, I needed an e-commerce app. But the quotes from app developers were sky-high, surpassing my budget. Without firm plans or financial support, I took a daring step. As an engineering graduate, I decided to build the app myself. My goal: a captivating interface, stunning product images, easy checkout, and seamless payments. Despite limited assistance, affordable online courses on Udemy became my guiding light. They equipped me with the skills needed to bring my app vision to life.

The participants further noted that digital learning offers women *flexibility and convenience so they can better balance work and family* and still over-shadow the knowledge deficit that earlier dissuaded women from pursuing their dream entrepreneurial career. Apeksha shares:

At a point in my business journey, I was 6 months pregnant. I couldn't devote much time to my business. I utilized this phase in educating myself with a lot of strategies to shoot up sales. I concentrated on product listing advertisement for my product and opted for flipkart fulfilment that allows sellers on the platform to use Flipkart's massive resources – from warehousing and shipping to logistical services. That was also the time I listed my product in the Flipkart's 'Spike sale' initiative.

Other respondents confirmed that women's entrepreneurship benefited from digital platforms since they allow learning to occur without being constrained by factors like mobility, safety, and family responsibilities.

Digitally Induced Social Sensitization

Lastly, the participants acknowledged the sensitization induced by digital platforms in changing society's perceptions about women entrepreneurship. All the participants spoke of how social media platforms such as YouTube, LinkedIn, and Instagram are shifting roles from being social media to mass media, thereby creating a *media sensitization* about female entrepreneurship. This has, in turn, helped create an entrepreneurially constructive culture. Kanchan elaborates:

Digital platforms that present entrepreneurial prospects have had a significant influence on India's middle-class populace, which has historically been reluctant to take chances and has traditionally favoured working for the government. From accepting jobs in the IT-sector, Indian parents have off late started accepting non-traditional careers as well. Family rejection and hostility to entrepreneurship are now evolving into something more encouraging.

There is yet another way in which digital platforms helps sensitize society, which eventually benefits female entrepreneurship i.e., by providing *a large number of women entrepreneur role models.* Ayushi describes the changing societal perception as a consequence of the rising number of female social media influencers:

Women often felt alienated in the Indian start-up environment, which was typically defined by a "bro culture" of "alpha males." However, as seen by the growing number of female social media influencers, the situation has entirely flipped now.

Participants further narrated how the diffusion of digital platforms creates a multi-stakeholder interactive effect altering the traditional institutions, norms, and biases. Shilpi explains:

Digital platforms empower individuals, challenge established structures, and pave the way for more inclusive and equitable entrepreneurial ecosystems through broadened access, disintermediation, breaking gender and cultural norms, collaborative networks, data-driven insights, and grassroots activism.

Therefore, challenging the prevailing logics regarding female entrepreneurship, digital platforms serve as a wedge to carve a groove in the entrepreneurial ecosystem. Table 2 summarizes the raw data, first-order categories, and second order themes that allowed the authors to reach the aggregate theoretical dimension of the "digital fempreneurship groove."

What Are the Barricades in the 'Labyrinth Groove'?

This study also finds that the "female entrepreneurship groove" is not a singularly plain landscape, but with ripples, rises, and falls. In navigating the convolutions of the labyrinth groove, the female entrepreneurs take note of the barricades of digital fempreneurship. The authors found that the

Table 2. Second-order themes, first-order categories, and raw data

Themes & Categories		Examples of Raw Data
Digitally Facilitated Self-Efficacy	Helps visualize future success	My goalposts are clearly in my mind, and the number of likes and subscribers I get helps me to reaffirm and realistically adjust these aims.
	Provides vicarious experiences	I have grown up seeing so many people follow the same path. The vicarious thrills of adventure flow from the success of so many women entrepreneurs out there.
	Provides feedback from clients/ audience	You cannot hope to succeed by luck when you are pursuing something like this. There is whole lot of audience, and you are judged every time someone watches your video.
Digitally Eased Financial Requirements	Provides easy access to digital marketplace at minimum initial investment	Digital platforms have helped many like me to give effect to business ideas that were not possible few years ago. It gives an easy access to a global marketplace without requiring any major investment in logistics.
	Provides alternative online fund-raising options	As a way of accessing alternative funds, DE's crowdfunding investment practice of funding a project or venture by raising money from a large number of people, typically via the internet.
Digital Networking Opportunities	Social Media Platforms	The social media is really powerful. It not only expands the market size to global audience, but also provides opportunity to like minded people. We do have a WhatsApp group of people in similar kind of business. So, in case something is not available with me, I can pass the order to other similar sellers.
	Access to Women-only Online Network	I got in touch with a lot of people through SHEROES, the women-only community founded by Sairee Chahal. It is trustworthy and promising and I think every woman should look through it.
Digital Learning opportunities	Online availability of entrepreneurship relevant courses	I have learnt most of the nuances of my business through courses available online. Courses like Digital Marketing, Social Media Analytics, etc., came handy in different situations.
	Opportunity to choose time, space and pace of learning	At a point in my business journey, I was 6 months pregnant. I couldn't devote much time to my business. I utilized this phase in educating myself with a lot of strategies to shoot up sales. I concentrated on product listing advertisement for my product and opted for flipkart fulfilment that allows sellers on the platform to use Flipkart's massive resources – from warehousing and shipping to logistical services. That was also the time I listed my product in the Flipkart's 'Spike sale' initiative.
Digitally Induced Social Sensitization	Media sensitization of Women Entrepreneurship	Due to the sensitization caused by many reality shows like SharkTankIndia, society is now more accepting of women starting their own businesses.
	Increasing number of WE Role Models	Due to the increasing number of WE role models, society has been mobilized to appreciate women as entrepreneurs and encourage an entrepreneurial mind-set in the adolescents.

barricades of the labyrinth groove are: *Challenged Digital Self-Efficacy, Constrained Digital Financial Options, Dysfunctional Digital Networks, The Inadequacies of Digital Learning* and *Slow Pace of Social Sensitization.* Figure 2 illustrates the data analysis process by revealing the data structure.

Challenged Digital Self-Efficacy

The first barricade that the fempreneurs experience as they navigate through the labyrinth is the challenge to their otherwise digitally facilitated self-efficacy. The challenge emanates due to two reasons: first because the *success narratives overshadow the innumerable failure stories*. The same digital platforms that help female entrepreneurs develop their sense of self-efficacy also act to
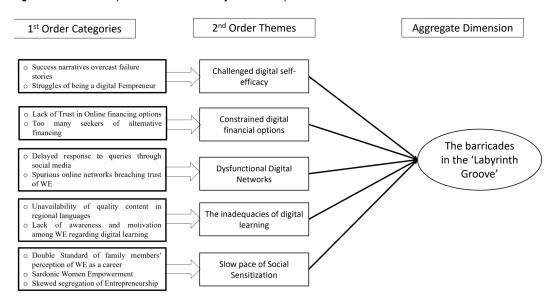
Figure 2. Data Structure (the barricades in the 'Labyrinth Groove')

1st Order Categories	2nd Order Themes	Aggregate Dimension

- Success narratives overcast failure stories
- Struggles of being a digital Fempreneur

→ Challenged digital self-efficacy

- Lack of Trust in Online financing options
- Too many seekers of alternative financing

→ Constrained digital financial options

- Delayed response to queries through social media
- Spurious online networks breaching trust of WE

→ Dysfunctional Digital Networks

- Unavailability of quality content in regional languages
- Lack of awareness and motivation among WE regarding digital learning

→ The inadequacies of digital learning

- Double Standard of family members' perception of WE as a career
- Sardonic Women Empowerment
- Skewed segregation of Entrepreneurship

→ Slow pace of Social Sensitization

→ The barricades in the 'Labyrinth Groove'

undermine it. When their businesses fail to align with the success stories of digital fempreneurship that they had heard of, female entrepreneurs are left feeling belittled. Richa elaborates:

Everyone sees me as a successful micro-celebrity today. Many fans write to me that they would want to be me. But what remains concealed is the number of things I have previously failed at. It was my fifth channel, which finally made it. Very few people know that I have failed previously at so many other things. They compare their journeys to me and ask me the reasons as to why their channels do not garner as many likes and subscribers as my channel.

Second, the digital self-efficacy provided by digital platforms is also challenged when these digital fempreneurs face challenges by the very *fact of being fempreneurs*. Arihana narrates:

As an Instagrammar, I daily receive at least a dozen lewd messages in my Inbox. Not just that, there have been instances I have been slut-shamed, abused, and fantasized in my live videos. It literally hits my confidence to the rock bottom. I wonder if things could have been better had I been a boy.

The difficulty in tracing offenders and the complexity and inaccessibility of the justice delivery mechanisms in the cyberspace makes women vulnerable. Digital platforms are thus employed in multifarious ways to undermine women business owners' confidence, even when they don an anonymous persona. Female entrepreneurs may now be harassed at any time and from any location on the platform, sapping their self-efficacy and, in some cases, their souls.

Constrained Digital Financing Options

Participants in this study noted that although digital platforms give users access to different funding choices, they are hampered by the *problem of trust*, which otherwise serves as a social, economic, and political unifying force. Apeksha laments the proliferation of unreliable alternative funding mechanisms:

They are all over the internet. It is challenging to distinguish between which is genuine and which is scam. Many female business owners succumb to these fundraising arrangements, which they subsequently come to regret. I was just fortunate enough to be connected to the appropriate platform.

The female entrepreneurs also shared that those alternative fund-raising mechanisms, which have established themselves and have become trustworthy are full of applications seeking funds. Therefore, it has become no better than formal banks, which are storehouses of red-tapism and delays. Nishtha elaborates:

I tried to get funds for my venture online. I applied with my business plan, identity documents, and even the small fee. It has been around seven months since then. I tried to follow up a number of times, but it was all in vain.

Thus, while digital online alternative financing options have positively impacted the arena of female entrepreneurship, they are entrenched with the problem of *lack of trust* and *too many takers*.

Dysfunctional Digital Networks

Dysfunctional digital networks emerged as the third barricade in navigating the labyrinth. The participants reasoned that the causes of the malfunctioning of these networks were primarily two. The first source of the ineffectiveness came out to be the *delayed response to queries on the social media.* Ayushi narrates:

Since I did not have any professional training in sketching, I had a number of queries, which only someone in this profession could answer. I attempted to get in touch with so many artists via social media, email, and even through comments on their posts. I don't remember if I ever received a response. Only once, a generous lady replied, that too, after a year's time.

Further, some participants also narrated how their trust was compromised as they approached online networks. Incidents of harassment, doxing by hackers, and online vigilantes, phishing, baiting, and pretexting, among others, were common in the narratives of the female entrepreneurs. Shubha shares about the nuisance she had to face as she unknowingly fell prey to a *spurious network*:

When I decided to launch my own app, I searched the Internet and came across a website exclusively run by those women who by any reason had to sacrifice their jobs for their families. These software professionals claimed to be graduates of premier institutes. Their reviews also praised them for their noble venture. I contacted them and they were happy to offer services at a subsidized rate, as I was myself a female entrepreneur. They tricked me into disclosing sensitive information about my business and even took control of my website so as to link it to the App. They hacked my website and I had to file a police complaint.

The digital networks, thus, are not only facilitators of female entrepreneurship, but navigating through them throws peculiar challenges. The fear of being cyber-bullied and the delays in getting responses for one's queries are two problems that make digital networks ineffective for female entrepreneurs who aspire to chisel the female entrepreneurship groove to reach the top.

The Inadequacies of Digital Learning

While digital learning opens up the entrepreneurial space to female entrepreneurs, these learning opportunities are not without barricades. A common discourse regarding the inadequacy of digital

learning flows from the *unavailability of relevant quality courses in regional languages*. Shikha narrates:

I am not very well versed in Hindi or English. This really creates issues for me to learn anything. I have to take the help of any of friends who can translate the content for me. This is not always feasible.

The women in our sample frequently spoke of the lack of awareness about digital learning avenues and the motivation required to leverage these resources. Honiya elaborates:

One thing is that it is not very easy to figure out the most relevant course that suits your requirements. Even if one is able to locate such a course, it is difficult to maintain commitment and sit long hours in front of the screen all alone by yourself. Not all courses are engaging and, with time, one starts to lose motivation and dedication.

While it is undeniable that online learning opportunities open up the world of entrepreneurship to a certain extent, it is also true that there is a *lack of relevant, high-quality courses in local languages*, a *lack of knowledge about digital learning options*, and a *lack of the motivation needed to take advantage of these resources*. Our findings manifest these barricades as stumbling blocks to the pink sky of entrepreneurship.

Slow Pace of Social Sensitization

A general sentiment amongst the participants was that while digital platforms have impacted the social, economic, and political spheres of our societies, making them more democratic and inclusive, they have not been enough for the transformative empowerment and emancipation of women entrepreneurs. Arihana describes the society's *double standards when it comes to approving a career as a digital female entrepreneur* for their own family members:

As consumers of content and services, society acknowledges the increasing number of girls as social media influencers. The perception about other women taking up entrepreneurship is appreciated. However, when it comes to their daughters and wives, such a career is frowned upon. It would probably take some more time for society to accept girls as entrepreneurs.

Participants of our study collectively highlighted that most women owned ventures existed in the feminine sectors. Subha mordantly speaks of this *skewed sectoral differentiation* of women entrepreneurs even on the digital platforms.

If one carefully observes, most of the female entrepreneurs are in "pink-collar fields" like cosmetics, content creation, customer services, apparel, broadcasting, etc. While women are initiating their ventures in other sectors as well, there aren't many role models in those sectors. Perhaps it would take some more time….

Keerthi goes a step ahead to question the *sardonic women empowerment* through digital platforms as she elaborates:

While men usually obtain formal employment in an office setup, women can choose to be homemade entrepreneurs who could leverage the power of a digital platform. I don't know if it is what is called women empowerment….

While the society has become more sensitized over time, the findings suggest that the pace of this sensitization has been really sluggish. The participants expressed a mixed train of emotions regarding how digital platforms sensitize society regarding women taking up entrepreneurship, was noted, with the hope of a gender-neutral entrepreneurial ecosystem in the near future.

DISCUSSION

This research study adds to the conversations on digital entrepreneurship by uncovering the vantage that aids in carving the digital fempreneurship groove and the barricades that prevent movement within it. The findings suggest that *Digitally Facilitated Self-Efficacy, Digitally Eased Financial Requirements, Digital Networking Opportunities, Digital Learning Opportunities,* and *Digitally Induced Social Sensitization* are properties that afford the widening of a digital fempreneurship groove. Simultaneously, *Challenged Digital Self-Efficacy, Constrained Digital Financing Options, Dysfunctional Digital Networks, the Inadequacies of Digital Learning,* and the *Slow Pace of Social Sensitization* act as barricades, which restrict the chiselling of the fempreneurship groove.

This study's findings are in line with those of McAdam et al. (2019), who draw the conclusion that while digital entrepreneurship helps entrepreneurs navigate and fill socio-cultural institutional gaps, it also gives them the chance to directly and indirectly change the persisting institutional context. The findings also resonate with Kang (2022), who posits that digital platforms are not a panacea for all the gender disparities and that offline characteristics continue to impact online digital behaviours in female entrepreneurship. This study's findings are consistent with those of Heizmann and Liu (2022), who discover that romanticised notions of women's economic empowerment in digital environments obscure the continuation of systemic and structural subjugation. With Kelly and McAdam (2022), who provide evidence that digital environments perpetuate women's outsider position, the authors extended the conversation to the double paradox of digital fempreneurship.

CONTRADICTION, INTERDEPENDENCE, AND PERSISTENCE: THE CASE FOR PARADOXICAL EMANCIPATORY POTENTIAL OF DIGITAL FEMPRENEURSHIP

The authors found that digital platforms, which facilitate self-efficacy, simultaneously challenge the self-efficacy of digital fempreneurs. Similarly, financing options multiply in digital context, but are simultaneously constrained due to their own insufficiencies and issues of trust. The networking opportunities are although immense in the digital world, but their dysfunctionality arises due to the existence of spurious networks. Learning opportunities are convenient, yet inadequate. Lastly, social sensitization is digitally induced, yet sluggish.

At the same time, these findings manifest interdependence among themselves. The financing options, networking opportunities, and learning opportunities together help in cultivating self-efficacy, which triggers social sensitization. Similarly, while the benefits clubbed together encourage females to take up digital entrepreneurship, the pitfalls combine to stop them from doing so. It is also noteworthy that all the elements of the findings function within the forces of continuity and change.

The authors also found that the elements of their findings have persisted over time. Even in the face of the dynamic and constantly changing business environment, the elements of self-efficacy, finances, networking, learning, and social support have been the defining features of female entrepreneurship. It is also seen that gender issues, which persist in all spheres and contexts, exhibit even in digital fempreneurship. The opposing tensions between the opportunities and obstacles of entrepreneurship find no exception in digital entrepreneurship.

The contradiction, interdependence, and persistence within the two sets of findings, take one to the lens of paradox in examining the findings, which Smith and Lewis (2011) define as "contradictory yet interrelated elements that exist simultaneously and persist over time" (p. 382). The authors summarize these elements of paradoxical tension in Table 3 below.

Table 3. Elements of paradoxical tensions in digital entrepreneurship

	Benefits	**Pitfalls**
Self- Efficacy	Digitally Facilitated	Digitally Challenged
Financing Options	Digitally Eased	Digitally Constrained
Networking Opportunities	Immense	Dysfunctional
Learning Opportunities	Convenient	Inadequate
Social Sensitization	Digitally induced	Sluggish

These benefits and pitfalls offered by digital platforms leave the authors in an indecisive state regarding the emancipatory potential of digital entrepreneurship and compel them to retrospect their journey of exploring digital fempreneurship from start to end. The on-going mutually defining interaction between the benefits and the pitfalls locks digital fempreneurship in a persistent ebb and flow, which requires female entrepreneurs to constantly re-evaluate and revise their strategies to foster agility and remain competitive.

SOCIETY AND DIGITAL PLATFORMS IMPRINTING EACH OTHER: THE PARADOX OF CONQUEST

This study's findings reveal that both digital platforms and the society at large are susceptible to imprinting; however, it is always fluctuating as to who has more of an impact on whom. Digital platforms, without a doubt have opened avenues for women, but the gendered nature of the society overcasts its shadow over these platforms to make them gendered. Subsequently, digital platforms also influence society in adopting a gender-equal mind-set. It then becomes difficult to answer whether society casts a bigger shadow, or the digital platforms make a cutting arc on society. Together, these observations inform about a second kind of paradox from within the findings i.e., *the paradox of conquest.* This situation is what the authors refer to as a *double paradox*, or paradoxes that nest within and unlock other paradoxes. As researchers investigate one paradox, they find another one that is triggered by or nested within it (Kuiper et al., 1997, p. 171). Concurrently, while the authors first started with an aim to explore the emancipatory potential of digital fempreneurship, they later discovered that there is also a paradoxical relationship between digital platforms and society as a whole. They named this paradox as *the paradox of conquest.*

Paradoxes that amplify each other become knotted or interwoven through transforming positive features into negative ones. Nested paradoxes, however, mitigate each other and transform negatives features into positive ones. Interestingly, the two paradoxes the authors located i.e. (i) the emancipatory potential of digital platforms and (ii) the imprinting between society and digital platforms (the paradox of conquest) are both nested and knotted. For instance, as the paradox of conquest ascensions, they subsequently amplify the paradox about the emancipatory potential of digital platforms. Similarly, the positive change infused by digital fempreneurship mitigates the paradox of conquest. This further unknots a *paradox of paradoxes.* However, for the purpose of this paper, the authors limited the discussion of *double paradox* here.

Theoretical Contributions

In response to recent calls to theorize gender, technology, and digital platforms (Al-Qirim et al., 2022; Dy & Marlow, 2017; Kang, 2022; Kelly & McAdam 2022;), the critical inquiry into the lived experiences of women entrepreneurs in digital spaces is both timely and important. In responding to these calls, the authors make several contributions to the body of knowledge. First, they extend the analyses of women's digital entrepreneurship (Dy& Marlow, 2017; McAdam et al., 2020) by

qualitatively evaluating the extent to which digital entrepreneurship subdues the barriers of female entrepreneurship. They inform that the digital fempreneurship groove is full of barricades. Further, they contribute to the debate of cyberfeminism (McAdam et al., 2020; Wheadon & Duval-Couetil, 2019; Zaheer et al., 2019), by highlighting that the situation on the ground is neither dystopian nor utopian. The "glass ceilings" experienced by fempreneurs seems to be thinning, but remains largely impenetrable. However, some fempreneurs cruise through "labyrinth grooves" to become role models for the pink sky of entrepreneurial careers that is contingent. The digital era has promises of an egalitarian world, but human society has a role to play.

In taking this "both-and" approach, instead of an "either-or" approach of paradox, the authors allow a vibrant and polyphonic appetite to their research, rather than focussing on one pole, which could have bred narrowness and complacency. The extension of paradox theory to digital fempreneurship is a novel contribution of their research. Their work is grounded in the cultural context of India, where gender equality and gender stereotypes coexist, and they thereby bring fresh perspectives to past research on female entrepreneurship that has primarily been conducted in Scandinavian or Arabic settings.

Lastly, this research study extends the idea of digital agility to the individual unit, in contrast to a relatively better researched concept of organizational agility (Salmela et al., 2022). While prior research acknowledges the role of the capabilities of the workforce as a significant antecedent for organizational digital agility (Tallon et al., 2019), "individual digital agility" as the focal construct has been missing from the discourse. In undertaking an integrative view of the affordances and barricades of digital platforms, this study highlights the idea of "individual digital agility" by providing a link between digital agility and female entrepreneurial experiences. In so doing, this study provides a foundational frame to the idea of "individual digital agility," on which future researchers can build their theorizing of digital agility and position their contributions.

Managerial Implications

This study offers several implications at micro, meso, and macro levels. At the micro level, this study provides insights for female entrepreneurs to consider both the benefits and the pitfalls of digital entrepreneurship while considering digital fempreneurship as a career. This study emphasizes the need for female entrepreneurs to carefully assess the benefits and challenges associated with digital entrepreneurship as a career choice. For example, they should consider factors such as access to technology, digital skills training, and online marketing strategies.

By identifying the potential inefficiencies in "women-for-women" collaborations as meso level implications, this study encourages the development of supportive networks that focus on mutual growth and knowledge sharing rather than solely gender-based affiliations. Real-life example: The Female Founders Network can utilize this research to redefine their objectives and focus on building diverse collaborations that transcend gender boundaries, promoting a more inclusive and impactful community.

Policy makers and governments can utilize this study's insights to draft policies and initiatives that foster a more inclusive digital entrepreneurship ecosystem. For example, they can allocate resources for digital skills training programs tailored specifically for women, provide funding and grants for female-led start-ups, and establish support networks for female entrepreneurs to access mentorship and business development opportunities. Real-life example: The government can implement policies inspired by this research to create an incubator program that specifically supports digital fempreneurship, providing financial assistance and mentorship to aspiring female entrepreneurs.

Limitations and Avenues for Future Research

The findings of this study provide significant new insights for scholars pointing to clear avenues for further research. Future researchers can further explore paradoxical tensions in detail focussing on

various stakeholders in digital fempreneurship. The conceptualization of "individual digital agility" can be further refined by contrasting its characteristics with "organizational digital agility" and this theoretical premise can be applied across contexts to advance future scholarship. The findings also point out the need for quantitative validation, so as to understand the scaled potential of digital entrepreneurship in emancipating female entrepreneurship.

The study is limited by a small sample size and, thus, the authors urge future researchers to engage in digital fempreneurship discussions that are more inclusive, intersectional, and empowering. It is important to recognize that the findings may not be generalizable to all digital female entrepreneurs alike due to the differences in the extent to which digital platforms are embedded in their entrepreneurial ventures. The authors believe that analysis with such evidence could help achieve a more detailed picture of the potential of digital platforms to democratize entrepreneurship. This study fails to present a longitudinal analysis of participants' changing perceptions regarding the potential of digital platforms, which future researchers should explore. Further, future research can explore the strategies and resources that women entrepreneurs utilize to navigate the barriers of digital fempreneurship.

CONCLUSION

This paper examines the changing landscape of fempreneurship in the digital context to understand if the digital world has been of merit in mitigating the barriers faced by fempreneurs. Findings suggest that even in travelling through the digital fempreneurship grove, there are barricades that need to be traversed. The "glass ceilings" earlier experienced by fempreneurs seems to be thinning, but remains largely impenetrable. While zooming through the lens of cyberfeminism, the findings suggest that the situation on the ground is beyond binary notions surrounding gender and online spaces. Furthermore, in trying to analyse the contradictions and interdependence, the authors noted a double paradox i.e. (i) paradoxical emancipatory potential of digital fempreneurship and (ii) the paradox of conquest in the imprinting of society and digital platforms. They expanded upon the concept of digital agility by focusing on the individual level and showcased the significance of "individual digital agility" as a fundamental framework for positioning research findings. Finally, the authors offer recommendations to advance both research and practice in regard to digital female entrepreneurship.

CONFLICT OF INTEREST

We have no known conflict of interest to disclose

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