

Breaking Barriers Through Innovation: The Rise of Women Entrepreneurs

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Received 05/01/2025
Review began 05/04/2025
Review ended 10/03/2025
Published 10/21/2025

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DOI:

<https://doi.org/10.7759/s44404-025-05917-0>

Abstract

Despite the increasing recognition of women's contributions to entrepreneurship, women-led enterprises consistently face structural challenges, including limited access to venture capital, gender biases, and insufficient industry networks. Innovation has emerged as an essential catalyst for success, enabling women entrepreneurs to overcome structural constraints and achieve sustained growth. This research is based on 25 semi-structured interviews with women entrepreneurs from North India, conducted from January to April 2024, encompassing sectors such as technology, e-commerce, hotel, and social enterprises. The results indicate that women entrepreneurs strategically utilize digital tools, alternative funding approaches, and community-focused business tactics to grow their enterprises. Essential empirical findings indicate that digital platforms facilitate the surmounting of financial obstacles, process innovations like flexible work models enhance work-life balance, and business model innovations promote scalability in resource-limited contexts.

The research utilizes the Resource-Based View (RBV) and Innovation Diffusion Theory (IDT) to examine how female entrepreneurs leverage resources such as social capital, resilience, and technological flexibility to achieve a competitive advantage. The concrete consequences underscore the significance of gender-responsive legislation, inclusive investment strategies, and mentorship networks for women. The study enhances the RBV by including unconventional resources into competitive advantage and augments IDT by illustrating gender disparities in innovation uptake. The limitations encompass the regional focus (North India) and the qualitative nature of the study, which constrains generalizability. This research highlights that innovation is not just a tool but a strategic imperative for women entrepreneurs in emerging nations, providing practical insights for policymakers, investors, and ecosystem facilitators.

Categories: Women entrepreneurship

Keywords: innovation, entrepreneurial ecosystem, women entrepreneurship, women entrepreneurship challenges, entrepreneurship

Introduction

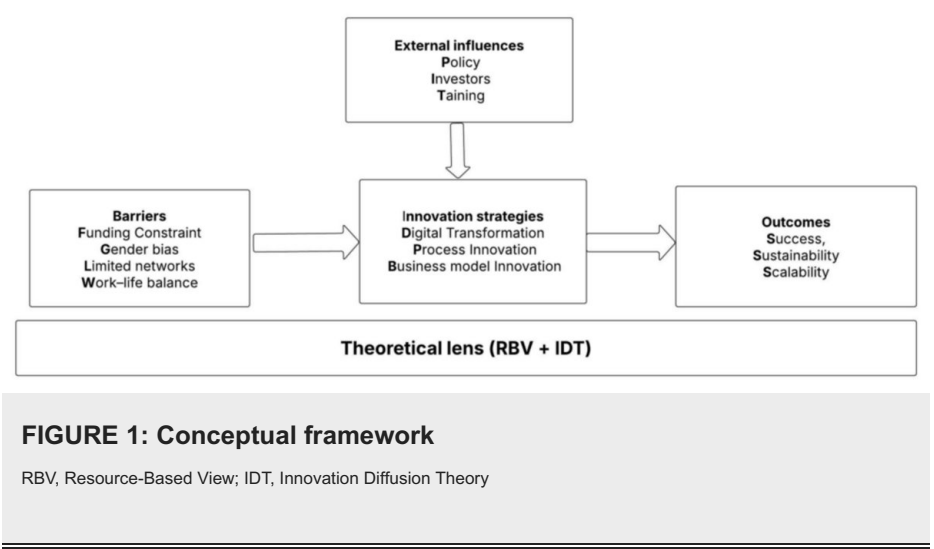
Entrepreneurship has been recognized as an essential driver of economic growth, innovation, and job creation. In recent decades, the rise of women entrepreneurs has revolutionized worldwide corporate landscapes, significantly boosting economic growth and social progress. Despite the increasing incidence of women-led enterprises, research indicates that women entrepreneurs consistently face structural barriers (Al-Qahtani et al., 2022) that hinder their ability to establish, grow, and maintain profitable businesses. These impediments such as limited access to financial resources and mentorship, institutional biases, and challenges in market entry have been extensively documented in entrepreneurship literature (Brush et al., 2022) (Kanze et al., 2018). In North India, women entrepreneurs encounter multifaceted hurdles stemming from gendered cultural norms, male-dominated business networks, and inequitable access to formal finance mechanisms (Martins et al., 2024) (Rathi et al., 2025). While previous research identifies obstacles such as financial constraints, mentorship deficiencies, and market entrance challenges (Kanze et al., 2018), these studies predominantly regard innovation as peripheral rather than fundamental to surmounting these impediments. In doing so, they neglect the ways in which women entrepreneurs actively forge inventive strategies to circumvent institutional barriers. This descriptive inclination constrains theoretical advancement and results in a disjointed comprehension of women's entrepreneurial methods.

The circumstances render the examination of women's entrepreneurial innovation in this region both pertinent and essential. Notwithstanding these barriers, many women entrepreneurs demonstrate resilience and adaptability, employing innovation as a strategic tool to surmount obstacles and attain commercial success. In this study, innovation is defined as the implementation of novel or substantially enhanced technologies, processes, or business models that augment competitiveness (Ferreira et al., 2017) and sustainability (Teece, 2018). This encompasses both incremental modifications like workflow enhancements and radical innovations such as digital transformation or innovative funding models. A multitude of academics has investigated the significance of innovation in entrepreneurship, emphasizing its essential function in enhancing competitiveness, enabling market differentiation, and improving operational efficiency (Teece, 2018). Nevertheless, a significant portion of this research has concentrated

How to cite this article

Tripathi P, Trivedi A (October 21, 2025) Breaking Barriers Through Innovation: The Rise of Women Entrepreneurs. Cureus J Bus Econ 2 : es44404-025-05917-0. DOI <https://doi.org/10.7759/s44404-025-05917-0>

on general entrepreneurial contexts, frequently neglecting the unique contribution of innovation in women-led enterprises. Women entrepreneurs frequently function in resource-constrained environments, heightening their dependence on unorthodox, inventive strategies to offset the lack of traditional funding, networks, and market opportunities. Women entrepreneurs in India are progressively using crowdfunding platforms, digital marketplaces, and hybrid business structures to circumvent gender-specific constraints in finance and markets (Singh and Belwal, 2008). Figure 1 presents the conceptual framework. It illustrates how women entrepreneurs face systemic barriers, how innovation serves as the mediating mechanism to overcome these barriers, and how this process leads to startup success and sustainability. The framework also incorporates external ecosystem influences (policy, investor, training) and is grounded in Resource-Based View (RBV) and Innovation Diffusion Theory (IDT).



This study addresses the gap in the inadequate comprehension of how women entrepreneurs in emerging nations (Christodoulou et al., 2024), like India, utilize several forms of innovation technological, procedural, and business model to achieve sustainability and growth. Prior research has addressed obstacles encountered by women, although it has insufficiently examined the role of innovation as a mediator between structural impediments and commercial results. This work contributes by framing the analysis within two complementary theoretical perspectives. The RBV offers a paradigm for comprehending how women entrepreneurs (Brush et al., 2019) leverage non-traditional resources such as resilience, social capital, and technical adaptability as competitive advantages (Barney, 1991). IDT elucidates the disparate adoption and dissemination of ideas among women entrepreneurs in contrast to their male counterparts. Despite the expanding literature on gender and entrepreneurship, there is still a limited comprehension of the precise mechanisms by which innovation empowers women entrepreneurs to surmount systemic obstacles, including funding disparities, restricted networks, and gender bias. Current research frequently emphasizes obstacles or lauds success narratives without methodically examining how women-led firms strategically utilize innovation to attain sustainability. The absence of clarity results in a significant research void: we are unaware of how various types of innovation (technology, process, and business model) distinctly enable women entrepreneurs to alleviate gender-based disadvantages and improve long-term business sustainability. Resolving this issue is crucial for advancing theory and guiding governmental actions designed for women-led companies.

The subsequent aims to solve the recognized research gap:

- RO1: To rigorously analyze the role of innovation as a means of surmounting gender-specific obstacles in women-led startups.
- RO2: To ascertain the predominant forms of innovation (digital, procedure, and business model) that women entrepreneurs utilize to alleviate funding and networking obstacles.
- RO3: To evaluate the degree to which innovation facilitates not only the survival but also the long-term scalability and sustainability of women-led enterprises.
- RO4: To produce evidence-based policy insights that directly pertain to the intersection of innovation and gender entrepreneurship.

Literature review

Women's entrepreneurship has attracted considerable attention in the last thirty years, with initial studies frequently adopting a deficit perspective that emphasizes obstacles such as restricted access to capital, exclusion from networks, and societal expectations that limit women's entrepreneurial endeavors (Brush et al., 2019) (Henry et al., 2017). Although these studies have emphasized the systemic aspect of

entrepreneurial inequality, they predominantly concentrate on the hurdles rather than the techniques women utilize to surmount them. As study has progressed, the focus has increasingly turned to resilience, innovation, and flexibility among women entrepreneurs (Hughes et al., 2012). Nonetheless, this transition is still insufficient, as a significant portion of the literature fails to appropriately consider innovation as a strategic and mediating element that empowers women to transform restrictions into possibilities. This represents a significant oversight, as innovation be it technological, business model, or process-oriented has become a transformative force enabling women-led firms to generate value, attain sustainability, and overcome systemic obstacles.

In developing economies like India, where women entrepreneurs encounter complex constraints that surpass those found in more established settings, women in North India face challenges including financial exclusion, cultural expectations, patriarchal family systems, and limited access to professional networks (Kar et al., 2022). Nevertheless, despite these drawbacks, numerous women-led organizations are attaining success by using creative strategies, such as digital platforms, crowdfunding models, and hybrid social enterprises. These practices indicate that innovation serves as both a coping mechanism and a growth strategy; nevertheless, existing theoretical frameworks have not been sufficiently utilized to elucidate how and why these techniques are beneficial in this environment. Comprehending these interactions is both theoretically significant and practically imperative, as it provides insights for crafting inclusive entrepreneurial ecosystems that acknowledge and bolster women's innovative activities.

The RBV posits that organizations achieve lasting competitive advantage through the utilization of resources that are valued, scarce, inimitable, and non-substitutable (Barney, 1991). In its conventional use, the RBV prioritizes tangible assets, including financial capital, proprietary technology, and intellectual property. Nevertheless, these types of funding are frequently unattainable for women entrepreneurs in North India, who encounter systemic prejudice in investment and credit markets (Brush et al., 2022). Women leverage different types of capital, including personal resilience, familial legitimacy, community support, and digital literacy, which frequently remain unrecognized in conventional entrepreneurial frameworks. Innovation serves as the catalyst that transforms intangible resources into concrete business results. For instance, a women entrepreneur may utilize her social capital to get crowdfunding, converting networks into financial assets; others might employ time-management skills and adaptable company processes to reconcile caring duties with operational efficiency. RBV provides a robust framework for examining how women entrepreneurs convert atypical resources into enduring competitive advantage via innovation.

The RBV clarifies resource use, whereas the idea of innovation diffusion provides understanding of the processes involved in innovation acceptance and distribution. Sahin (Sahin, 2006) identified relative advantage, compatibility, complexity, trialability, and observability as the factors affecting the adoption of innovations. These characteristics hold gender-specific importance for women entrepreneurs in North India. Cost-effective incremental innovations that align with the existing practices and are easily observable such as mobile payment systems or digital marketing platforms are often favored over radical innovations like artificial intelligence or blockchain, which may be perceived as complex, costly, or incompatible with their business contexts (Sharma et al., 2021). IDT clarifies why women adopt certain technologies while rejecting others, emphasizing the interplay of resource constraints, cultural norms, and risk evaluations. The adoption process is not merely technical but is deeply connected to the gendered dynamics of business ecosystems.

It develops an extensive theoretical framework by integrating RBV and IDT to analyze women's entrepreneurial innovation. RBV analyzes the mobilization and transformation of resources, while IDT explores the motivations for adopting certain innovations and the diffusion process. Collectively, they provide synergistic perspectives: The RBV clarifies the exploitation of resources that fosters innovation, whereas IDT highlights the adoption dynamics shaped by gender and context. For example, when women entrepreneurs in North India employ crowdfunding to fund their businesses, the RBV interprets this as the transformation of social networks into financial capital, while the IDT explains its rapid adoption among women entrepreneurs due to compatibility and observability. The amalgamation of these frameworks surpasses just static depictions of challenges, providing a dynamic viewpoint on how women entrepreneurs adeptly leverage innovation to foster resilience and competitive edge.

The conceptual contribution involves expanding the RBV and IDT within the context of gendered entrepreneurship in emerging nations. It enhances the RBV by redefining non-traditional resources resilience, familial legitimacy, and community embeddedness as valuable and scarce assets that can propel competitive results when integrated with innovation. It expands IDT by illustrating that women's adoption of innovation is not uniform but rather selective, influenced by gendered risk perceptions and contextual limitations. This study contests the universalist assumptions prevalent in innovation theory by demonstrating that women prefer gradual and process-oriented innovations that resonate with their lived experiences. The amalgamation of these findings connects gender studies, entrepreneurship, and innovation theory, providing a sophisticated framework for comprehending women's innovation tactics in constrained situations.

This theoretical framework emphasizes the necessity of examining women’s entrepreneurship through the lenses of both obstacles and agency, as well as strategic adaptability. This study emphasizes innovation as both RBV and IDT, redirecting the discourse from constraints to opportunities, and illustrating how women entrepreneurs in North India ingeniously convert limitations into avenues for sustainability and growth (Table 1). This enriches theoretical discussions and provides practical ideas for constructing inclusive, innovation-driven entrepreneurial environments. While Institutional Theory (Amenta and Ramsey, 2010) and Social Capital Theory (Kreuter and Lezin, 2002) also explain entrepreneurship under constraints, RBV and IDT provide a more robust explanatory basis for this study. RBV highlights how women-led startups rely on non-traditional resources (e.g., resilience, digital literacy, community networks) to compensate for financial and structural disadvantages. IDT, meanwhile, captures how these women entrepreneurs strategically adopt and diffuse innovations under gendered barriers, offering insights into the pace and form of innovation adoption. Taken together, these frameworks do more than describe the phenomenon; they help explain the mechanisms through which innovation translates into competitive advantage for women-led startups. This dual-lens approach therefore provides a stronger theoretical foundation for analyzing the intersection of gender, innovation, and entrepreneurship.

Framework	Core Concepts	Application to Women Entrepreneurs in North India	Link to Innovation Types	Study Contribution
RBV (Barney et al., 2001)	Competitive advantage arises from valuable, rare, inimitable, and non-substitutable resources.	Women lack access to traditional resources (finance, formal networks) but mobilize non-traditional ones: resilience, family legitimacy, community embeddedness, and social capital (Brush et al., 2019)	- Technological innovation: Using digital literacy to leverage low-cost tools. - Business model innovation: Converting social capital into financial capital via crowdfunding. - Process innovation: Flexible work models turning time management into efficiency.	Extends RBV by redefining non-traditional, gendered resources as strategic assets for competitive advantage.
IDT (Sahin, 2006)	Innovation adoption depends on relative advantage, compatibility, complexity, trialability, and observability.	Women adopt incremental and process-driven innovations due to financial, cultural, and institutional constraints. Radical innovations (AI, blockchain) less accessible due to cost/complexity (Sharma et al., 2021)	- Technological innovation: Mobile payments, e-commerce platforms (low-cost, observable). - Business model innovation: Subscription services and hybrid social enterprises (compatible, scalable). - Process innovation: Workflow digitization, flexible staffing models (low complexity, high trialability).	Extends IDT by showing gendered adoption patterns: women entrepreneurs favor incremental over radical innovations in resource-constrained contexts.
Integrated Lens (RBV + IDT)	Resources explain “what is leveraged”; diffusion explains “how and why adoption occurs.”	Women transform constraints into opportunities by mobilizing intangible resources and selectively adopting compatible innovations.	Demonstrates how innovation simultaneously acts as a resource-leveraging mechanism (RBV) and a selective adoption process (IDT).	

TABLE 1: Theoretical grounding: application of RBV and IDT to women entrepreneurs in North India

Source: Author's Own Creation. RBV, Resource-Based View; IDT, Innovation Diffusion Theory

Research Method

This study examines how women entrepreneurs in North India utilize innovation to surmount systemic obstacles and maintain their enterprises. A qualitative phenomenological technique was employed to reveal lived experiences and socially entrenched behaviors in the study. Phenomenology is especially effective for examining the fundamental nature of participants' experiences and their interpretations of innovation in resource-limited environments.

Questionnaire development

The semi-structured interview (Appendix A) was created to ensure consistency between the research objectives and the theoretical frameworks of the study, namely the RBV and IDT. The guide comprised seven thematic sections: background and demographics, entrepreneurial motivations and challenges, resource mobilization and capability development, innovation practices and adoption, perceptions and adaptation of innovation, institutional and cultural context, and future outlook. Every segment was methodically aligned with the components being examined. For example, inquiries regarding motivations,

initial resource dependencies, and capability development were based on the RBV, allowing the research to elucidate how women entrepreneurs leverage and convert tangible and intangible resources, including financial capital, networks, and skills, into competitive advantage. Likewise, the segments addressing innovation practices, adoption decisions, and adaption processes were informed by IDT, emphasizing how women assess compatibility, affordability, and risk prior to embracing incremental or process changes. This part on institutional and cultural environment examined how family expectations, societal norms, and regulatory frameworks influenced entrepreneurial decision-making, thereby combining the RBV and IDT within the experiences of women entrepreneurs in North India. The future outlook section was incorporated to encapsulate anticipatory views on resource buildup and innovation pathways, enhancing the analytical rigor of the study. The draft guide underwent iterative refinement: domains were extracted from existing literature on women's entrepreneurship and innovation ([Brush et al., 2019](#)), ([Henry et al., 2017](#)), and ([Welter et al., 2014](#)), validated by two academic experts for theoretical soundness, and pretested with three women entrepreneurs to evaluate clarity, accessibility, and cultural relevance.

Sampling and participants

The study was carried out in North India, a region where women entrepreneurs encounter institutional obstacles (e.g., restricted access to formal financing and incubators) and cultural impediments (e.g., limited mobility, familial expectations, and gender biases within professional networks). A purposive sampling method is utilized to select participants capable of offering profound, pertinent, and varied perspectives on the phenomenon being examined. Initial members were selected via professional women's associations, entrepreneurship forums, and incubator networks. Subsequently, snowball sampling was employed to broaden the participation pool by soliciting recommendations from existing participants for people within their networks. The inclusion criteria include participants who must be women who are entrepreneurs or co-founders of companies. Must have operated their enterprises for a minimum of three years to demonstrate experience in sustainability and innovation techniques and have implemented at least one type of innovation (technological, business model, or process). Exclusion criteria encompassed women overseeing family-operated enterprises devoid of founder accountability, as well as those managing micro-businesses (fewer than two employees) lacking evidence of innovation. Participants were verbally informed about the purpose and nature of the interviews. Only those who voluntarily agreed to participate were interviewed. No personal or identifying information was collected or disclosed during the course of this research.

A total of 25 individuals were interviewed. Saturation was attained after 23 interviews, at which point no new codes or themes emerged ([Guest et al., 2020](#)). Two more interviews were performed to validate saturation. Participants encompassed several industries: technology (n = 7), e-commerce (n = 6), hospitality (n = 5), and social enterprises (n = 7), demonstrating the diversity of innovation strategies across sectors. Company sizes varied from 6 to 25 employees. Table 2 displays anonymized information of the participants.

Data collection

Data were gathered from January to April 2024 through semi-structured, individual interviews conducted either in person or via Zoom/Google Meet, based on participant preference. The duration of the interviews ranged from 45 to 70 minutes. The interview protocol was developed utilizing constructs from RBV and IDT, concentrating on obstacles, innovation strategies, and sustainability outcomes. The protocol underwent pilot testing with two women entrepreneurs and was subsequently refined for clarity and coherence. The semi-structured interview guide (Appendix A) was developed based on RBV and IDT. RBV informed the questions on resource mobilization, capability development, and sustainability, while IDT guided the exploration of innovation adoption, diffusion, and adaptation. This ensured that the instrument was theoretically grounded while also flexible enough to capture lived experiences.

Interviews were carried out in English or Hindi, contingent upon participant preference. All interviews were audio-recorded with the consent of participants and transcribed verbatim.

Data analysis

Thematic analysis was performed in accordance with Clarke and Braun ([Clarke and Braun, 2014](#)) six-step methodology. Interview transcripts were transcribed verbatim and examined with NVivo 12 software, enabling systematic classification and thematic grouping. An inductive coding technique was initially employed to facilitate the emergence of themes from participants' narratives, succeeded by a deductive phase in which the emergent codes were aligned with the theoretical frameworks of RBV and IDT. To improve rigor, two researchers separately coded a selection of transcripts and resolved inconsistencies through discussion until consensus was achieved, therefore reinforcing intercoder reliability. Systematic peer debriefings were performed to enhance the coding framework, and analytical memos were preserved to document reflexive insights during the process. Emerging themes were consistently juxtaposed with the data and current literature to guarantee validity and theoretical coherence. This study enhances the transparency, rigor, and credibility of its findings through the integration of inductive coding, software-assisted analysis, and several reliability tests.

The data were examined utilizing (Clarke and Braun, 2014) six-step thematic analysis framework, which offers a flexible yet stringent methodology for recognizing patterns within qualitative data. The procedure encompassed:

Acquaintance: Engaging in the reading and rereading of transcripts to really immerse oneself in the facts.

Generating Initial Codes: Methodical coding of pertinent phrases, sentences, and paragraphs across transcripts.

Identifying Themes: Organizing related codes into overarching categories.

Evaluating Themes: Guaranteeing uniformity and logical coherence of themes throughout the dataset.

Defining and Naming Themes: Refining themes to encapsulate their core and guarantee theoretical coherence.

Generating the Report: Synthesizing themes with participant quotations and theoretical context.

The NVivo 12 program was utilized for data coding and organization. A mixed inductive-deductive approach was employed: inductive to facilitate the emergence of themes from participants' narratives, and deductive to correlate findings with RBV and IDT.

Coding and theme development

Subsequent to transcription, the study team conducted multiple readings of the data for the purpose of familiarization. Open coding was conducted line by line to identify salient statements, actions, and decisions articulated by participants. This produced 42 preliminary codes that encapsulated various innovative approaches, obstacles, and contextual modifications. To improve dependability, three researchers independently analyzed 20% of the transcripts. Cohen's κ (Halpin, 2024) was calculated at 0.82, signifying strong inter-coder agreement. Discrepancies in coding, such as defining crowdfunding as either financial innovation or social capital mobilization, were addressed through collaborative debate until a consensus was achieved.

Categorization and theme development

The initial 42 codes were then categorized into 12 groups by aggregating thematically analogous codes. Terms such as "crowdfunding," "peer lending," and "community-based financing" were classified under the area of alternative finance via networks. Likewise, "WhatsApp adoption," "workflow digitization," and "app-based delivery" were categorized under low-cost digital adoption.

Through recurrent conversations and memo writing, these categories were further synthesized into four overarching themes, consistent with the study's theoretical framework.

Resource Mobilization via Innovation-Documenting how women entrepreneurs utilized technology, networks, and alternative resources to surmount systemic obstacles.

Selective Adoption of Incremental Innovations-Emphasizing minor, cost-effective, and compatible innovations implemented to minimize expenses and mitigate risks.

Innovation as a Reaction to Institutional and Cultural Obstacles-Illustrating how gendered constraints and socio-cultural norms necessitated adaptive innovations.

Innovation and Perceived Business Sustainability-emphasizing the significance of innovation in maintaining enterprises throughout market fluctuations and crises (e.g., COVID-19) and fostering long-term growth.

Illustrative coding pathways

Table 2 illustrates the progression from unrefined participant quotations to early codes, categories, and ultimately, final themes, so assuring analytical openness. All 25 participants contributed to the formulation of one or more themes. P4's experience with crowdfunding was classified as alternative finance via networks, categorized under social capital as a resource, and eventually associated with the theme of Resource Mobilization through Innovation. P15's implementation of solar energy was classified as green operations, falling under sustainability practices, and contributed to the theme of Innovation and Perceived Business Sustainability.

The coding pathways established a distinct connection between participants' lived experiences and the

theoretical understanding of the study. To mitigate the potential for researcher bias, the team participated in reflexive discussions across the entire process. An author, as a woman entrepreneur, saw the possibility of empathic bias in understanding participants' challenges. Reflexive notes and peer debriefings were employed to guarantee equitable interpretation, differentiating between participants' perspectives and researchers' theoretical frameworks.

Participant Quote (Raw Data)	Initial Code	Category	Theme
P1: "I built an AI chatbot because hiring staff was too costly."	Tech as substitute for labor	Leveraging technology for efficiency	Resource Mobilization through Innovation
P2: "Subscription models helped retain customers when sales fluctuated."	Customer retention via business model	Alternative revenue models	Selective Adoption of Incremental Innovations
P3: "I redesigned shifts so women staff could work flexible hours."	Flexible staffing practices	Gender-sensitive process innovation	Innovation as a Response to Institutional and Cultural Barriers
P4: "Crowdfunding worked when banks rejected me."	Alternative finance via networks	Social capital as resource	Resource Mobilization through Innovation
P5: "We created SaaS tools for SMEs—low-cost and scalable."	SaaS for small firms	Low-cost digital innovation	Resource Mobilization through Innovation
P6: "WhatsApp payments were easier than bank systems."	Mobile-first adoption	Simple digital integration	Selective Adoption of Incremental Innovations
P7: "Online bookings reduced my dependence on travel agents."	Digital booking systems	Process automation	Selective Adoption of Incremental Innovations
P8: "Combining donations with product sales made us sustainable."	Hybrid funding	Dual revenue streams	Innovation and Perceived Business Sustainability
P9: "Cloud automation cut costs during growth."	Cloud adoption	Efficiency-oriented tech	Resource Mobilization through Innovation
P10: "Partnering with influencers boosted my online sales."	Social media leverage	Market expansion strategies	Innovation and Perceived Business Sustainability
P11: "Digitizing workflow helped me reduce errors and costs."	Workflow digitization	Lean management	Selective Adoption of Incremental Innovations
P12: "Crowdsourcing ideas online connected me with communities."	Idea crowdsourcing	Collective intelligence	Resource Mobilization through Innovation
P13: "I launched an app to reach rural customers."	App-based delivery	Expanding access	Selective Adoption of Incremental Innovations
P14: "Omni-channel presence helped me survive during COVID."	Online-offline integration	Market diversification	Innovation and Perceived Business Sustainability
P15: "Switching to solar cut energy costs in my hotel."	Green operations	Sustainability practices	Innovation and Perceived Business Sustainability
P16: "I tied microfinance loans with digital training for women."	Blended empowerment model	Social inclusion strategies	Innovation as a Response to Institutional and Cultural Barriers
P17: "My EdTech platform made remote learning possible."	Education technology	Sector-specific innovation	Resource Mobilization through Innovation
P18: "We mixed loyalty rewards with subscription models."	Hybrid loyalty model	Customer retention	Innovation and Perceived Business Sustainability
P19: "Redesigning service spaces made women clients feel safer."	Service design	Gender-sensitive innovation	Innovation as a Response to Institutional and Cultural Barriers
P20: "Creating women-only supply chains gave us legitimacy."	Women-led networks	Institutional workaround	Resource Mobilization through Innovation
P21: "Our FinTech platform made transactions faster and safer."	Digital finance	Sectoral innovation	Resource Mobilization through Innovation
P22: "AI product suggestions increased customer trust."	AI-driven personalization	Adoption of emerging tech	Selective Adoption of Incremental Innovations
P23: "Upskilling employees improved service		Human capital	Innovation as a Response to Institutional

quality."	Employee training	strengthening	and Cultural Barriers
P24: "We designed low-cost diagnostic tools for rural women."	Affordable health-tech	Inclusive technology	Innovation and Perceived Business Sustainability
P25: "Integrating logistics and payments reduced delays."	Supply chain integration	Process improvement	Resource Mobilization through Innovation

TABLE 2: Coding pathway linking data, codes, categories, and themes (N = 25)

Source: Author's Own Creation

Results

The analysis of 25 interviews reveals that women entrepreneurs utilize innovation mostly as a means of survival and expansion in resource-limited and culturally restrictive environments. Four overarching themes emerged from the data: resource mobilization via innovation, selective adoption of incremental advances, innovation as a reaction to institutional and cultural obstacles, and innovation as a strategy for assuring corporate sustainability.

RO1: To rigorously analyze the role of innovation as a means of surmounting gender-specific obstacles in women-led startups.

The findings indicated that women entrepreneurs utilized innovation mostly as a survival tactic in resource-limited and institutionally restrictive settings. Innovation arose as a method to mobilize resources, overcome cultural obstacles, and validate their entrepreneurial endeavors. Participants consistently highlighted that exclusion from traditional financial institutions required alternative approaches. P4 stated, "Banks consistently denied my applications, prompting me to turn to crowdfunding through my networks." This dependence on networks and community-oriented finance demonstrates how women ingeniously fill institutional voids with informal alternatives, consistent with the findings of Datta and Gailey (Datta and Gailey, 2012) (Roomi and Parrott, 2008). The outcomes enhance the RBV by emphasizing that women-led firms cultivate advantages through intangible resources, including resilience, digital flexibility, and community networks-elements frequently neglected in conventional RBV applications. This aligns with contemporary research emphasizing the contextual integration of women's entrepreneurship and the necessity to acknowledge other, non-financial capital forms (Henry et al., 2017) (Welter et al., 2014). Furthermore, women's innovative solutions highlight that necessity-driven innovation is not simply a survival tactic but a deliberate attempt to assert legitimacy and agency within restricted environments. This analytical finding reflects growing demands to reframe studies regarding women's entrepreneurship beyond deficit models (Sucheta, 2024).

RO2: To ascertain the predominant forms of innovation (digital, process, and business model) that women entrepreneurs utilize to alleviate funding and networking obstacles.

Participants primarily embraced modest and cost-effective advancements instead of drastic changes. These encompassed digital payments, workflow digitization, and AI-driven customization. P6 stated, "WhatsApp payments were more convenient than banking systems for both me and my clients." P11 emphasized that "Digitizing workflow allowed me to decrease errors and lower costs." These incremental tactics exemplify (Rogers et al., 2008) IDT, which posits that compatibility and cost-effectiveness significantly influence adoption. Women entrepreneurs significantly utilized process and business model innovations to alleviate resource deficiencies. P22 used AI-driven product recommendations to bolster customer trust, aligning with previous findings showing that digital adoption promotes resilience in women-led enterprises (Sundermeier, 2024). Alvarez and Barney (Alvarez and Barney, 2014) argue that incremental "small wins" can aggregate into substantial competitive advantage. Significantly, these findings enhance IDT by demonstrating that women entrepreneurs selectively accept innovations, motivated more by necessity, cultural compatibility, and the imperative of trust-building than by a desire for novelty. This refinement enhances the literature by contextualizing innovation adoption within a gendered entrepreneurial ecosystem (Sucheta and Vivek, 2023).

RO3: To evaluate the degree to which innovation facilitates not only the survival but also the long-term scalability and sustainability of women-led enterprises.

The third element emphasized that innovation frequently arises as a response to institutional and cultural obstacles rather than merely as a competitive tactic. P12 adjusted to familial constraints by converting client meetings to a virtual format: "In light of my family's disapproval of late-night travel, I transitioned client meetings to an online platform." P3 restructured staff schedules to facilitate flexible work arrangements for women employees, reflecting the findings of Jamali (Jamali, 2009) and Jennings and

Brush ([Jennings and Brush, 2013](#)). In addition to adaptability, women utilized innovation as a means of social empowerment. P16 articulated the connection between microfinance and digital training, whereas P23 emphasized the enhancement of staff skills. These techniques correspond with the assertions of Gupta and Mirchandani ([Gupta and Mirchandani, 2018](#)) who contend that women often include social inclusion into their business tactics. This study demonstrates that innovation serves as both a reaction to cultural barriers and a strategic approach for generating social value, hence enhancing the sustainability discourse in women's entrepreneurship ([Sucheta et al., 2022](#)).

RO4: To produce evidence-based policy insights that directly pertain to the intersection of innovation and gender entrepreneurship.

Innovation was identified as a vital mechanism for sustainability and resilience. A multitude of participants explored hybrid revenue strategies, such as amalgamating donations with product sales or incorporating loyalty programs with subscriptions, to mitigate unpredictable cash flows. P18 elucidated: "We integrated loyalty rewards with subscription models to stabilize revenue streams." These hybrid approaches align with the results of Shepherd and Williams ([Shepherd and Williams, 2020](#)), who underscore the intentional amalgamation of social and commercial logics in entrepreneurship. Innovations that are environmentally sustainable and socially inclusive were also widely highlighted. P15 implemented solar solutions to reduce operational expenses, whilst P24 created cost-effective diagnostics for rural women. These findings correspond with Hall et al. ([Hall et al., 2010](#)), who noted that sustainability-oriented innovation is frequently implemented in response to legitimacy and cost concerns. The COVID-19 pandemic highlighted the aspect of resilience, as P14 remarked, "An omni-channel presence enabled my survival during COVID."

The findings collectively indicate that women-led enterprises engage in contextualized innovation by using necessity-driven, incremental, and sustainability-oriented strategies. This viewpoint enhances the developing literature on women's entrepreneurship in India, especially research emphasizing social embeddedness and sustainability ([Sucheta et al., 2020](#)). The findings provide actionable insights for policymakers and support organizations, highlighting that innovation policies should extend beyond mere technology investment to include mentorship, social legitimacy, and the building of inclusive ecosystems.

Discussion

This study aimed to investigate how women entrepreneurs in North India utilize innovation to surmount systemic obstacles, informed by the RBV and IDT. The findings enhance current understanding by demonstrating that innovation in these circumstances is seldom a voluntary decision but instead a necessity-driven, survival-oriented process rooted in social, cultural, and institutional realities. This study enhances both RBV and IDT by directly linking the findings to the research topics and theoretical framework, while also responding to the demand for more contextually relevant theorizing in entrepreneurship research. While confirming known barriers, this study shows that women-led startups are redefining success metrics. Several participants emphasized sustainability, community impact, and balanced growth as central measures of success, contrasting with dominant benchmarks such as rapid revenue expansion. This reframing has practical implications: policymakers and investors must broaden their evaluative criteria to recognize alternative pathways of entrepreneurial success. For example, community-driven crowdfunding or hybrid business models should be seen as intentional innovations rather than second-best substitutes.

A significant contribution is the expansion of the RBV. The traditional RBV highlights how companies establish competitive advantage via unique internal resources ([Barney, 1991](#)). Our findings indicate that women entrepreneurs acquire resources by both reconfiguring their assets and by obtaining as well as legitimizing informal, network-based, and socially embedded resources. Participants indicated that crowdfunding, peer-to-peer lending, and women-only supply chains emerged as essential resource solutions when banks and official institutions failed to offer support (P4, P12, P20). These findings surpass previous research ([Datta and Gailey, 2012](#)) ([Roomi and Parrott, 2008](#)) by demonstrating that women's innovative potential is closely linked to their abilities to integrate into community networks. Consequently, the RBV evolves from a solely inward-focused resource theory to one that integrates social legitimacy and institutional bricolage ([Baker and Nelson, 2005](#)) as critical components of resource mobilization.

The research further enhances IDT by illustrating that women entrepreneurs participate in incremental, selective adoption of technologies instead of seeking radical changes. IDT posits that adoption is influenced by criteria such as relative benefit, compatibility, and complexity ([Sahin, 2006](#)); however, our data indicate that these decisions are additionally influenced by gendered institutional and cultural factors. For instance, WhatsApp-based payments (P6) and workflow digitalization (P11) were implemented specifically because of their risk mitigation, minimal training requirements, and alignment with familial and communal expectations. This indicates that adoption in marginalized environments is mostly influenced by socio-cultural feasibility rather than rational assessments of innovation qualities.

An additional contribution arises from integrating RBV and IDT by demonstrating that necessity-driven innovations serve as both mechanisms for resource mobilization and tactics for adoption. Flexible employment methods (P3) and hybrid revenue streams (P8, P18) illustrate that innovations were frequently devised to address resource scarcity and facilitate incremental dissemination. This duality indicates that innovation within constrained environments cannot be perceived merely as a growth-centric approach, as frequently posited in conventional innovation literature. Innovation functions as a means of legitimacy, survival, and resilience, reinterpreting both RBV and IDT to more accurately represent the circumstances of women entrepreneurs in emerging markets.

The results possess considerable practical and policy ramifications. The report emphasizes that practitioners can improve competitiveness through incremental and cost-effective innovations, including digitization, process automation, and low-cost AI applications, even in challenging circumstances. The findings emphasize the necessity for authorities to legitimize alternative finance, bolster women-centric supply chains, and enhance digital literacy training. Previous research (Gupta and Mirchandani, 2018) (Hughes et al., 2012) signifies the importance of providing a context-specific framework for developing support systems that empower women entrepreneurs to convert necessity into opportunity.

Implications

Theoretical Contributions

This research offers three significant additions to theoretical frameworks. Initially, it expands the RBV by illustrating that women entrepreneurs in resource-limited environments utilize not only firm-specific assets but also socially anchored and community-oriented resources. Crowdfunding, peer networks, and women-led supply chains demonstrate how legitimacy and informal trust can replace formal institutional backing, thereby expanding the RBV beyond its conventional firm-centric perspective (Barney, 1991) (Baker and Nelson, 2005). Secondly, the study enhances IDT by demonstrating that women's adoption of innovation is influenced not only by the perceived attributes of innovations but also by socio-cultural viability. The selective acceptance of low-cost, compatible, and incremental innovations indicates that dissemination should be comprehended within gendered institutional frameworks. The findings integrate RBV and IDT by illustrating that innovations frequently fulfill dual roles: as tools for resource mobilization and as strategies for adoption. This reframes innovation as a necessity-driven process for survival and legitimacy, rather than solely a pursuit of development. This study's original contribution is the identification of intangible and non-traditional resources-such as resilience, digital adaptability, and community-driven strategies-as essential kinds of resource capital for women-led enterprises. This study expands the RBV by focusing on how women entrepreneurs strategically convert neglected tangible and financial resources into a competitive advantage, in contrast to previous applications that largely focused on these resources. The study enhances IDT by demonstrating that women entrepreneurs frequently adopt and disseminate innovation not alone for efficiency, but as a calculated reaction to institutional gender bias, a facet inadequately examined in current innovation diffusion literature.

Practical Contributions

The study emphasizes that incremental, cost-effective, and contextually suitable innovations can provide substantial competitive benefits for women entrepreneurs from a practitioner's viewpoint. Digital payment systems, workflow automation, and economical AI personalization facilitate efficiency, enhance customer trust, and save costs without necessitating radical transformation. The results indicate that women entrepreneurs may gain advantages by embracing an incremental innovation approach, strategically aligning ideas with existing resources, cultural norms, and market demands. Entrepreneurial training programs and incubators should shift their focus from advocating high-tech disruption to prioritizing practical, cost-effective ideas that align with the actual experiences of women in emerging nations. The study expands on IDT by demonstrating that women entrepreneurs frequently adopt and disseminate innovation not alone for efficiency, but as a calculated reaction to institutional gender bias, a facet inadequately examined in current innovation diffusion literature. The results extend beyond validating current obstacles by illustrating how women-led enterprises are redefining success criteria. Rather than depending exclusively on swift revenue expansion, numerous participants articulated sustainability, community impact, and work-life integration as indicators of entrepreneurial success. This insight contests the prevailing performance criteria in entrepreneurship literature and proposes a more gender-sensitive framework for assessing startup outcomes.

Policy Contributions

The research also offers insights for policymakers and ecosystem developers. The dependence on crowdfunding, peer-to-peer lending, and women-centric networks highlights the pressing necessity to legalize and legitimize alternative finance methods. Policy frameworks that endorse community-based finance, reward women-led supply chains, and offer digital literacy training could directly enhance women's entrepreneurial capabilities. The discovery that women frequently innovate in reaction to institutional and cultural obstacles indicates that regulatory and social reforms such as enhancing workplace safety, alleviating mobility constraints, and fostering inclusive digital policies are essential for

facilitating proactive innovation. By perceiving innovation as a necessity-driven adaptation rather than an optional strategy, policy interventions can be more effectively customized to the circumstances of women entrepreneurs in emerging economies.

The current research enhances the existing work on contextualized entrepreneurship by emphasizing the experiences of women entrepreneurs in North India. By placing RBV and IDT within a resource-scarce, institutionally intricate, and culturally constraining environment, it illustrates that established theories necessitate contextual modification to maintain global relevance. The study offers a theoretical recontextualization and a practical framework for promoting women's entrepreneurship, effectively connecting abstract theory with real-world entrepreneurial experience.

Conclusions

The research discussed here examined how women entrepreneurs in North India utilize innovation to surmount systemic restrictions, referencing the RBV and IDT. An analysis of 25 comprehensive interviews indicated that innovation is not a voluntary or growth-focused decision but a necessity-driven process influenced by resource limitations, institutional deficiencies, and cultural obstacles. Four themes emerged: resource mobilization via innovative practices, selective acceptance of incremental innovations, innovation as a reactive measure to institutional and cultural constraints, and innovation as a cornerstone for corporate sustainability and resilience. Collectively, these data emphasize that women entrepreneurs innovate not out of capability, but out of necessity. The sample comprised 25 women entrepreneurs from North India, hence constraining the generalizability of the findings to other contexts. The dependence on retrospective recollections may potentially add recall bias, since participants are more inclined to highlight successful tactics. Subsequent research may rectify these limitations by utilizing longitudinal designs to monitor innovation strategies over time, broadening samples to encompass additional regions or comparative gender analyses, and implementing mixed-methods approaches to examine and substantiate the conceptual connections among RBV, IDT, and innovation strategies. Investigating the impact of emerging technologies like AI and blockchain on facilitating women's entrepreneurship offers a valuable direction for further research.

Like all qualitative studies, this research has limitations. The sample was restricted to 25 women entrepreneurs from North India, recruited through purposive sampling, which limits the statistical generalizability of the results. The findings should therefore be interpreted as context-specific insights rather than universally generalizable claims. However, the rich narratives and thematic patterns generated provide transferable lessons that may be relevant to women entrepreneurs in similar institutional and cultural contexts in other emerging economies. Future research could build on this study by empirically testing the impact of the intangible resources and alternative success metrics identified here. Quantitative or mixed-method designs would help validate how resilience, community capital, and sustainability orientations contribute to women's entrepreneurial outcomes across different contexts.

The contextualized and inclusive understanding of entrepreneurial innovation by integrating both theories with the live experiences of women entrepreneurs in resource-limited settings illustrates the need to reevaluate current theories by examining how women in emerging economies creatively harness resources, selectively embrace innovations, and devise survival-oriented strategies. These insights enhance entrepreneurship studies and provide a framework for practitioners and policymakers aiming to promote women's entrepreneurship in environments characterized by structural limitations.

Appendices

Appendix A: Semi Structured Questionnaire

Section 1: Background and Demographics

Can you tell me about yourself and your business?

How long have you been operating this business?

Which sector/industry does your business belong to?

Section 2: Entrepreneurial Motivations and Challenges (RBV)

What motivated you to start your business?

What resources (skills, knowledge, capital, networks) did you rely on when you first started?

What challenges did you face in mobilizing these resources?

Section 3: Resource Mobilization and Capability Development (RBV)

How do you use your resources (financial, human, social, technological) to sustain your business?

Have you developed any new skills or capabilities since starting your venture?

How do you deal with limitations in resources or access to opportunities?

Section 4: Innovation Practices and Adoption (IDT)

Have you introduced any new ideas, practices, or processes in your business? Please describe.

What motivated you to adopt these new practices (e.g., cost reduction, efficiency, customer demand)?

How did you learn about these new practices?

How long did it take you to adopt them, and what factors made adoption easier or harder?

Section 5: Perceptions and Adaptation of Innovation (IDT)

How do you decide whether to adopt a new idea or practice?

What makes a new practice or idea attractive or difficult for you to try in your business?

Do you test innovations on a small scale before fully adopting them?

How do you observe whether these innovations are working in your business?

Section 6: Institutional and Cultural Context (RBV + IDT)

How do family, community, or cultural expectations influence your entrepreneurial decisions?

Have social norms or institutional barriers (e.g., policies, regulations) influenced your ability to innovate?
If so, how?

Section 7: Future Outlook (RBV + IDT)

What are your plans for your business in the next 3-5 years?

How do you see innovation shaping the future of your business?

What resources or support do you think you will need to grow further?

Tables 3 and 4 present the coding structure developed for this study, illustrating the progression from initial codes to categories and overarching themes derived from participants' narratives.

Appendix B

Initial Codes (42)	Categories (12)	Exemplar Quotes
Crowdfunding, Peer lending, Community-based finance	Alternative finance through networks	"Banks kept rejecting me, so I turned to crowdfunding through my networks." (P4)
SaaS adoption, AI chatbots, Cloud automation, FinTech platforms, EdTech solutions	Leveraging technology for efficiency / Sectoral innovation	"I built an AI chatbot because hiring staff was too costly." (P1) "My EdTech platform allowed rural students to continue learning remotely." (P17)
Women-led supply chains, Community legitimacy, Networking support	Social capital as resource / Institutional workaround	"Creating women-only supply chains gave us legitimacy." (P20)
WhatsApp payments, Mobile-first adoption, Simple e-tools	Low-cost digital adoption	"WhatsApp payments were easier than bank systems for both me and my customers." (P6)
Workflow digitization, Lean practices, Process automation	Workflow digitization & process efficiency	"Digitizing workflow helped me reduce errors and cut costs." (P11)
App-based delivery, Online booking systems, Logistics integration	App-based delivery / Process automation	"Online bookings reduced my dependence on travel agents." (P7) "Integrating logistics and payments reduced delays." (P25)
AI product recommendations, Customer personalization	AI-driven personalization	"AI product suggestions increased customer trust in my platform." (P22)
Flexible staffing, Shift redesign, Safety-conscious work models	Flexible staffing practices	"I redesigned shifts so women staff could work flexible hours." (P3)
Family approval workarounds, Virtual meetings, Gender-sensitive services	Cultural constraint workaround / Gender-sensitive innovation	"Since my family discouraged late-night travel, I shifted client meetings online." (P12) "Redesigning service spaces made women clients feel safer." (P19)
Employee training, Upskilling, Knowledge-sharing	Human capital strengthening	"Upskilling employees improved service quality and retention." (P23)
Microfinance + training, social inclusion programs	Social inclusion strategies	"I tied microfinance loans with digital training for women." (P16)
Hybrid funding (donation + sales), Loyalty + subscription models	Hybrid revenue streams	"Combining donations with product sales made us sustainable." (P8) "We mixed loyalty rewards with subscription models." (P18)
Green operations (solar, eco-hospitality), Sustainable practices	Green operations	"Switching to solar cut energy costs in my hotel." (P15)
Market diversification (omni-channel, influencer partnerships), Business continuity (COVID resilience), Affordable health-tech	Business continuity / Market diversification / Inclusive technology	"Omni-channel presence helped me survive during COVID." (P14) "We designed low-cost diagnostic tools for rural women." (P24)

TABLE 3: Coding tree with exemplary quotes (initial codes → categories → themes)

Source: Author's Own Creation

Appendix C

Initial Codes (42)	Categories (12)	Overarching Themes (4)
Crowdfunding, Peer lending, Community-based finance	Alternative finance through networks	Resource Mobilization through Innovation
SaaS adoption, AI chatbots, Cloud automation, FinTech platforms, EdTech solutions	Leveraging technology for efficiency / Sectoral innovation	Resource Mobilization through Innovation
Women-led supply chains, Community legitimacy, Networking support	Social capital as resource / Institutional workaround	Resource Mobilization through Innovation
WhatsApp payments, Mobile-first adoption, Simple e-tools	Low-cost digital adoption	Selective Adoption of Incremental Innovations
Workflow digitization, Lean practices, Process automation	Workflow digitization & process efficiency	Selective Adoption of Incremental Innovations
App-based delivery, Online booking systems, Logistics integration	App-based delivery / Process automation	Selective Adoption of Incremental Innovations
AI product recommendations, Customer personalization	AI-driven personalization	Selective Adoption of Incremental Innovations
Flexible staffing, Shift redesign, Safety-conscious work models	Flexible staffing practices	Innovation as a Response to Institutional and Cultural Barriers
Family approval workarounds, Virtual meetings, Gender-sensitive services	Cultural constraint workaround / Gender-sensitive innovation	Innovation as a Response to Institutional and Cultural Barriers
Employee training, Upskilling, Knowledge-sharing	Human capital strengthening	Innovation as a Response to Institutional and Cultural Barriers
Microfinance + training, Social inclusion programs	Social inclusion strategies	Innovation as a Response to Institutional and Cultural Barriers
Hybrid funding (donation + sales), Loyalty + subscription models	Hybrid revenue streams	Innovation and Perceived Business Sustainability
Green operations (solar, eco-hospitality), Sustainable practices	Green operations	Innovation and Perceived Business Sustainability
Market diversification (omni-channel, influencer partnerships), Business continuity (COVID resilience), Affordable health-tech	Business continuity / Market diversification / Inclusive technology	Innovation and Perceived Business Sustainability

TABLE 4: Coding tree: from initial codes to categories and themes

Source: Author's Own Creation

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Poorva Tripathi

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Disclosures

Human subjects: Consent was obtained or waived by all participants in this study. Animal subjects: All

authors have confirmed that this study did not involve animal subjects or tissue. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

Acknowledgements

Poorva Tripathi is responsible for the data used in this research and are available upon request. The authors will keep the data for 5 years. This article was previously presented at the International Conference on “Entrepreneurship and Innovation: Navigating Global Challenges” held on March 24-25, 2025 (Hybrid mode), at the School of Business Management, CSJM University, Kanpur, India, in collaboration with the School of Economics, Astana International University, Astana, Kazakhstan.

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