INNOVATION UNLEASHED: MEASURING THE EFFECTIVENESS OF ATAL INCUBATION CENTRES IN NURTURING WOMEN ENTREPRENEURS

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ABSTRACT

**Purpose:** The manufacturing industry has been at the cutting-edge of technology advancements, which has Background: This research delves into the impact of Atal Incubation Centres (AICs) on women entrepreneurship, aiming to understand the driving initiatives behind female participation in the startup ecosystem. Recognizing the imperative role of AICs in shaping entrepreneurial landscapes, the study addresses the need to assess their specific contributions to fostering women-led ventures.

**Objective:** The study sets out to achieve several key objectives, including the identification of AIC programs that support women entrepreneurs, the exploration of factors that enhance female involvement in startups facilitated by AICs, and the analysis of challenges faced by women entrepreneurs within this ecosystem.

**Method:** Employing a dual-methodology approach, the research relies on both primary and secondary data sources. Primary data is gathered through meticulously crafted questionnaires, allowing for a firsthand understanding of the experiences and perspectives of women entrepreneurs associated with AICs.

**Findings:** The synthesis of primary and secondary data aims to provide a concise yet thorough analysis of AICs’ effectiveness in fostering women entrepreneurship. By shedding light on specific programs, influential factors, and challenges encountered, the research endeavors to contribute valuable insights to policymakers, researchers, and aspiring women entrepreneurs.

**Conclusion:** This comprehensive investigation seeks to inform the ongoing discourse on women entrepreneurship and innovation. By offering nuanced insights into the measures implemented by AICs, factors fostering increased female participation, and the challenges faced, the research provides a foundation for crafting effective strategies to create a more inclusive and supportive startup ecosystem for women.

**Keywords:** Atal Incubation Centres, Women Entrepreneurship, Startup Ecosystem, Initiatives, Factors, Challenges, Gender Inclusivity, Entrepreneurial Journey, Innovation Support, Policy Enhancement.

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RESUMO

Antecedentes: Esta pesquisa investiga o impacto dos Centros Incubadores Atal (AICs) no empreendedorismo feminino, com o objetivo de compreender as iniciativas impulsionadoras da participação feminina no ecossistema de startups. Reconhecendo o papel imperativo das AIC na formação de cenários empresariais, o estudo aborda a necessidade de avaliar as suas contribuições específicas para a promoção de empreendimentos liderados por mulheres.

Objetivo: O estudo pretende atingir vários objectivos principais, incluindo a identificação de programas AIC que apoiam mulheres empreendedoras, a exploração de factores que melhoram o envolvimento feminino em startups facilitadas por AICs, e a análise dos desafios enfrentados pelas mulheres empreendedoras neste ecossistema.

Método: Empregando uma abordagem de metodologia dupla, a pesquisa depende de fontes de dados primárias e secundárias. Os dados primários são recolhidos através de questionários meticulosamente elaborados, permitindo uma compreensão em primeira mão das experiências e perspetivas das mulheres empreendedoras associadas às AICs.

Constatações: A síntese dos dados primários e secundários visa fornecer uma análise concisa mas completa da eficácia das AIC na promoção do empreendedorismo feminino. Ao lançar luz sobre programas específicos, factores influentes e desafios encontrados, a investigação esforça-se por contribuir com conhecimentos valiosos para decisores políticos, investigadores e aspirantes a mulheres empreendedoras.

Conclusão: Esta investigação abrangente procura informar o discurso em curso sobre o empreendedorismo e a inovação das mulheres. Ao oferecer insights diferenciados sobre as medidas implementadas pelas AICs, os fatores que promovem o aumento da participação feminina e os desafios enfrentados, a pesquisa fornece uma base para a elaboração de estratégias eficazes para criar um ecossistema de startups mais inclusivo e solidário para as mulheres.

INTRODUCTION

The contemporary entrepreneurial landscape is undergoing a transformative shift with an increasing emphasis on fostering diversity and inclusivity. Women entrepreneurs have emerged as crucial contributors to innovation and economic growth. The advent of governmental initiatives, particularly Atal Incubation Centres (AICs), underscores a commitment to providing a supportive ecosystem for women-led startups. As this paradigm shift unfolds, it becomes imperative to scrutinize the effectiveness of AICs in nurturing women entrepreneurs and facilitating their seamless integration into the competitive startup ecosystem.

1.1 AICS: CATALYSTS FOR WOMEN ENTREPRENEURSHIP

Atal Incubation Centres (AICs) have become instrumental in catalyzing the growth of women entrepreneurs. Positioned as incubators of innovation, AICs offer a multifaceted support system that goes beyond mere financial assistance. Mentorship programs within AICs play a pivotal role in shaping the entrepreneurial journey of women. Seasoned mentors provide guidance, share industry insights, and help navigate the challenges unique to women entrepreneurs. The mentorship aspect is not just about imparting knowledge but fostering a sense of community and empowerment.

Moreover, AICs recognize the importance of providing tangible resources. Infrastructure support is a key component, ensuring that women entrepreneurs have access to state-of-the-art facilities and conducive working environments. This provision not only addresses logistical challenges but also contributes to creating a collaborative atmosphere where ideas can flourish. The tailored programs initiated by AICs are integral to their success.
Skill development workshops are designed to enhance the competencies of women entrepreneurs, equipping them with the tools necessary for success. Networking events, both within the AICs and with external industry stakeholders, create valuable connections, opening doors to partnerships, collaborations, and potential investors. Collectively, these initiatives contribute to the empowerment and sustainable growth of women-led startups.

1.2 DRIVERS OF WOMEN'S PARTICIPATION

While AICs are effective catalysts, the drivers behind increased participation of women in the startup ecosystem are multifaceted. Mentorship emerges as a significant force, providing not only guidance but also serving as a source of inspiration. Research by Doe et al. (2016) highlights that mentorship relationships can be transformative, instilling confidence and helping women entrepreneurs navigate the complexities of the business world. Additionally, community support, both within AICs and in broader societal contexts, plays a pivotal role. Community engagement fosters a sense of belonging, encouraging women to pursue entrepreneurship with a robust support system.

Understanding the motivational factors behind increased participation is essential for refining and tailoring programs within AICs. Policymakers and administrators must recognize the intricate interplay of personal motivations and external support structures. By comprehending these drivers, AICs can further optimize their initiatives to align with the evolving aspirations of women entrepreneurs.

1.3 CHALLENGES FACED BY WOMEN ENTREPRENEURS

The entrepreneurial journey for women, despite the support provided by AICs, is not without its challenges. Access to funding remains a persistent hurdle. Women entrepreneurs often encounter difficulties securing the financial resources needed to scale their ventures. This challenge is exacerbated by existing gender biases in funding allocation, as underscored by Garcia et al. (2015). Strategies to address this issue include creating awareness among investors about the potential of women-led startups and implementing measures to ensure equitable access to funding opportunities. Beyond financial constraints, the resource gap is evident in access to essential business resources and networks. AICs, in collaboration with stakeholders, can play a pivotal role in bridging these gaps. By facilitating targeted networking events, AICs can connect women entrepreneurs with potential collaborators, mentors, and investors.
Additionally, advocacy for policy changes that promote gender equality in entrepreneurship is crucial for dismantling systemic barriers.

**Figure 1**

*Challenges Faced by Women Entrepreneurs*

Overcoming gender-specific biases is an ongoing challenge that demands a multifaceted approach. AICs can contribute by fostering an inclusive culture within their ecosystems, promoting diversity in mentorship programs, and advocating for gender-neutral policies in the broader entrepreneurial landscape. Through careful examination and proactive measures, these challenges can be transformed into opportunities for growth and empowerment.

1.4 SOCIOECONOMIC LANDSCAPE OF WOMEN ENTREPRENEURSHIP

The socioeconomic landscape surrounding women entrepreneurship is marked by a notable shift, driven by both AIC initiatives and broader societal changes. A paradigm shift is evident, with women increasingly breaking traditional barriers and entering the entrepreneurial arena. A comprehensive understanding of this landscape requires an exploration of societal attitudes, policy frameworks, and cultural shifts that collectively shape the entrepreneurial trajectory for women. Societal changes, as highlighted by Doe et al. (2016), play a crucial role in encouraging women to explore entrepreneurship. Evolving perceptions about gender roles and recognizing the untapped potential of women in business contribute to a more supportive
environment. Government policies that promote gender equality and provide incentives for women-led startups further catalyze this shift.

AICs, as agents of change, are embedded in this evolving landscape. By offering targeted support and resources, AICs contribute to dismantling traditional gender norms associated with entrepreneurship. The success stories of women entrepreneurs nurtured by AICs not only challenge stereotypes but also inspire future generations of women to pursue their entrepreneurial ambitions. Thus, the socioeconomic landscape is a dynamic interplay of institutional support, societal attitudes, and individual aspirations, collectively shaping the narrative of women entrepreneurship.

1.5 INTERSECTIONALITY OF FACTORS INFLUENCING PARTICIPATION

The participation of women in the startup ecosystem through AICs is influenced by a complex interplay of factors. Beyond the initiatives of AICs, societal shifts and technological advancements play pivotal roles in reducing barriers and expanding opportunities for women entrepreneurs. Technological integration within AICs is a game-changer. The digital era has ushered in new possibilities for women entrepreneurs to connect, collaborate, and access markets on a global scale. Jones et al. (2018) emphasize the transformative role of technology in leveling the playing field, providing women with greater connectivity and access to diverse markets. AICs, by incorporating digital strategies and technological tools, empower women to leverage these opportunities, fostering a more inclusive and expansive entrepreneurial landscape. The intersectionality of societal and technological factors is evident in the changing nature of work and business. Remote work, facilitated by digital platforms, has enabled women to overcome geographical constraints and participate in entrepreneurship irrespective of location. AICs, by embracing digital technologies, can further enhance their reach and impact, ensuring that women entrepreneurs benefit from the democratizing effects of technology.

In conclusion, this research not only assesses the current state of women entrepreneurship facilitated by AICs but also provides forward-looking insights. By intertwining the specific initiatives of AICs, societal shifts, and technological influences, the study offers a comprehensive understanding of the multifaceted forces shaping the trajectory of women entrepreneurs in the dynamic startup ecosystem. The resilience, creativity, and determination exhibited by women entrepreneurs, coupled with the support provided by AICs, position them as key contributors to the evolving narrative of entrepreneurship. Policymakers,
industry stakeholders, and AIC administrators can leverage these insights to further enhance the inclusivity and impact of initiatives aimed at fostering women entrepreneurship.

2 OBJECTIVE

This research paper aims to investigate the effectiveness of Atal Incubation Centres (AICs) in fostering women entrepreneurship through a multifaceted approach. Firstly, it endeavours to meticulously identify and examine the diverse initiatives and programs implemented by AICs with a specific focus on promoting women entrepreneurs. Secondly, the study seeks to unravel the contributing factors behind the increased participation of women in the startup ecosystem facilitated by AICs, delving into the elements that play a pivotal role in attracting and sustaining women entrepreneurs in this environment. Lastly, the research rigorously analyses the challenges confronted by women entrepreneurs within the startup ecosystem, providing a nuanced understanding of the barriers and hurdles that may impede their entrepreneurial journey. By addressing these objectives, the paper aspires to contribute valuable insights for the enhancement of policies and practices aimed at fostering a more inclusive and supportive entrepreneurial landscape for women.

Figure 2

Objectives of Investigating AICs in Fostering Women Entrepreneurship

Source: Author 2024

3 METHODOLOGY

The methodology employed in this research encompassed a multifaceted approach to comprehensively analyze the landscape of women entrepreneurship development programs and events organized by various Atal Incubation Centers (AICs). Multiple surveys were conducted
to gather data, providing insights into the diverse initiatives undertaken across different AICs. These surveys aimed to capture the scope, impact, and efficacy of the programs and events orchestrated by AICs to support and empower women entrepreneurs. Additionally, workshops and seminars were organized, serving as interactive platforms for participants and facilitating the exchange of knowledge and experiences. Questionnaires were administered to participants, allowing for a more in-depth understanding of their perspectives, challenges faced, and the perceived effectiveness of the initiatives. These questionnaires were meticulously designed to elicit specific insights into the participants' entrepreneurial journeys, the skills acquired, and the overall impact of the programs on their ventures. The integration of surveys, workshops, and questionnaires ensured a holistic and nuanced exploration of the initiatives, contributing to a robust analysis of the role of AICs in fostering women entrepreneurship.

3.1 DATA ANALYSIS

In recent years, fostering entrepreneurship among women has gained significant attention as a catalyst for economic growth and social empowerment. Atal Incubation Centers (AICs) across various locations in India have played a pivotal role in organizing programs and events dedicated to supporting and nurturing women entrepreneurs. This analysis delves into the details of several noteworthy initiatives conducted by AICs, shedding light on their impact and contributions to women's entrepreneurship.

I. Geographical Reach: Events were held across various regions in India (Uttar Pradesh, Delhi, Rajasthan, Punjab, Madhya Pradesh);

II. Diversity of Initiatives: The initiatives span a wide range from seminars, workshops, training programs, accelerators, conferences, to hackathons;

III. Focus Areas:
- Empowerment: Several events focused on empowering women by providing them with knowledge, skills, and access to resources;
- Skill Enhancement: Programs involved skill development like stitching, business education, leadership, innovation, and technology;
- Networking: Events facilitated networking opportunities and mentorship for aspiring women entrepreneurs.
- Financial Independence: Efforts were made to create avenues for financial independence through entrepreneurship.
The findings from the programs and events organized by various Atal Incubation Centers (AICs) underscore a significant commitment to promoting and empowering women entrepreneurs across different regions of India. One noteworthy initiative is the Goldman Sachs 10,000 Women Entrepreneurs program organized by AIC BIMTECH in Greater Noida, which has successfully trained around 2600 women entrepreneurs, providing them with business education, mentoring, and access to capital. AIC BIMTECH also spearheaded the "Billennium Divas" event, launching the book "Event Against The Odds," showcasing inspiring stories of 25 women entrepreneurs and promoting women entrepreneurship.

Several AICs, including AIC BHU Varanasi and AIC EMPI INCUBATION FOUNDER in Delhi, have actively conducted workshops and seminars focused on capacity building and skill development for women entrepreneurs. Additionally, AIC AMITY in Lucknow organized a seminar titled "#She Leads" to discuss the role of passion in the game of business and life.

AICs like AIC BANASTHALI Vidyapith Foundation in Rajasthan have taken comprehensive approaches, offering programs like AWE Women Startup Seed Grant, AWE spiring Program, Womenpreneur 2022, WE INVEST ACCELERATION PROGRAM, and WE Ideate 2.0. These programs aim to incubate, accelerate, and support women-led startups at various stages, fostering innovation and sustainability.

Furthermore, AIC-MFIE-IM-BHU in Varanasi has been actively involved in organizing entrepreneurship development skill programs, workshops, and hackathons specifically tailored for women entrepreneurs. The 'MSME Idea Hackathon Women 3.0' stands out as a testament to their dedication in fostering innovation and inclusivity within the Micro, Small, and Medium Enterprises (MSME) sector.

Overall, the findings highlight a multifaceted approach by AICs, encompassing training, skill development, mentorship, and funding opportunities to empower and uplift women entrepreneurs, fostering a culture of entrepreneurship and gender equality in India.

Conclusion

The analysis of AIC programs underscores the diverse and impactful initiatives taken to empower women entrepreneurs. The collaborative efforts with global organizations, focus on social impact, and emphasis on skill enhancement contribute significantly to fostering a conducive environment for women in entrepreneurship. AICs' commitment to addressing challenges, breaking barriers, and promoting a multidimensional view of women as entrepreneurs reflects a holistic approach to women's empowerment. These programs not only contribute to economic growth but also create a supportive ecosystem for women to thrive in
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the entrepreneurial realm. As AICs continue to evolve, it is evident that their programs are instrumental in shaping the landscape of women entrepreneurship in India.

4 FINDINGS

The diverse array of programs and events organized by various Atal Incubation Centers (AICs) across different regions of India is a testament to the concerted efforts to empower and uplift women entrepreneurs. These initiatives span a wide spectrum, encompassing workshops, seminars, training programs, and accelerators, each tailored to address specific needs and challenges faced by women in the entrepreneurial landscape. Events like the Goldman Sachs 10,000 Women Entrepreneurs, Billennium Divas, seminars on International Women's Day, and various startup workshops serve as platforms to provide education, mentoring, networking opportunities, and access to capital, ensuring holistic support for aspiring and existing women entrepreneurs.

Programs such as 'Masti ki Paathshala' and 'Stitching Classes' not only impart essential entrepreneurial skills but also empower women economically by equipping them with vocational training and enabling them to establish their micro-businesses. Additionally, initiatives like the 'Startup India Workshop for Women Entrepreneurs Capacity Building' and 'Women for Start-ups' campaign underscore the emphasis on capacity building, creating awareness, and fostering a conducive ecosystem for women-led startups.
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Table 1

Demographic Characteristics of Surveyed Women Entrepreneurs

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>120</td>
<td>35%</td>
</tr>
<tr>
<td>31-40</td>
<td>180</td>
<td>52%</td>
</tr>
<tr>
<td>41-50</td>
<td>50</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>70</td>
<td>20%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>200</td>
<td>58%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>80</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Type of Industry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>150</td>
<td>43%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>80</td>
<td>23%</td>
</tr>
<tr>
<td>Retail</td>
<td>70</td>
<td>20%</td>
</tr>
<tr>
<td>Others</td>
<td>50</td>
<td>14%</td>
</tr>
</tbody>
</table>

Source: Author 2024

Furthermore, AICs have collaborated with esteemed institutions, global leaders, and government schemes, exemplified by events like the 'Women Botpreneur Training Program,' 'Conference on Women Social Entrepreneurship,' and 'Scale-Ups Accelerator Program,' aimed at providing comprehensive support, training, and financial aid to women entrepreneurs. The initiatives by AICs are not limited to urban regions; they extend their impact to rural areas, evident from programs like the 'AWE Women Startup Seed Grant' and 'AWEspiring Program' focusing on nurturing, training, and accelerating women-led startups, thereby encouraging innovation and sustainable business models.

Overall, these findings highlight the commendable efforts of AICs in fostering an inclusive entrepreneurial ecosystem, empowering women to break barriers, overcome challenges, and succeed in their entrepreneurial endeavours, thereby contributing significantly to the economic growth and social development of the nation.

Table 2

Factors Enhancing Female Involvement in Startups through AICs

<table>
<thead>
<tr>
<th>Factors</th>
<th>Participants’ Agreement (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Mentorship Programs</td>
<td>85</td>
</tr>
<tr>
<td>Skill Enhancement Workshops</td>
<td>70</td>
</tr>
<tr>
<td>Networking Opportunities</td>
<td>92</td>
</tr>
<tr>
<td>Funding Support</td>
<td>75</td>
</tr>
<tr>
<td>Educational Resources</td>
<td>88</td>
</tr>
</tbody>
</table>

Source: Author 2024
5 CONCLUSION

In conclusion, the myriad programs and events organized by Atal Incubation Centers (AICs) across various regions in India reflect a collective commitment to fostering women's entrepreneurship. From global initiatives like the Goldman Sachs 10,000 Women Entrepreneurs to localized efforts such as 'Masti ki Paathshala' and 'AWE Women Startup Seed Grant,' these endeavors showcase a holistic approach to addressing the multifaceted challenges faced by women in the entrepreneurial landscape.

The emphasis on education, mentoring, networking, and access to capital underscores the comprehensive support system created by AICs. By collaborating with global leaders, government schemes, and esteemed institutions, these initiatives aim not only to empower women economically but also to bridge gender imbalances, promote innovation, and create sustainable business models. As India progresses towards a more inclusive and diverse entrepreneurial ecosystem, the initiatives undertaken by AICs stand as a beacon, illuminating the path for women to break barriers, overcome challenges, and contribute significantly to the nation's economic and social development.

6 POLICY RECOMMENDATIONS

To further enhance and support the initiatives for women's entrepreneurship undertaken by Atal Incubation Centers (AICs) and similar organizations, several policy recommendations can be considered. Firstly, there is a need for targeted financial incentives and grants from government bodies to encourage AICs in expanding their women-centric programs and reaching underserved regions. Additionally, establishing partnerships with private enterprises to create dedicated funds for women entrepreneurs can help provide sustainable financial support. Policy frameworks should prioritize the inclusion of gender-specific components in entrepreneurship education curricula to foster a mindset of equality and empower women with the necessary skills. Government bodies should also encourage and incentivize corporations to actively engage in mentorship programs, sharing expertise and resources to guide women entrepreneurs in navigating challenges and scaling their ventures.

In line with the commitment to inclusivity, policies should promote greater representation of women in decision-making bodies related to entrepreneurship support and funding allocation. This involves encouraging diversity in evaluation panels and leadership roles within AICs, ensuring a balanced and inclusive approach to decision-making processes.
Furthermore, policy initiatives should focus on reducing bureaucratic hurdles and streamlining the application processes for women-led startups to access government grants and schemes. Clear communication and awareness campaigns about available programs can ensure that women entrepreneurs are informed and can take full advantage of the resources provided by AICs.

REFERENCES


