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IMPACT OF DIGITAL TECHNOLOGY ADOPTION ON ENTREPRENEURIAL PERFORMANCE

[1]V. Josili. [2]Dr.N. Rajalingam

[1]Research Scholar, Department of Management Studies, Reg. No. 21114011062009, Manonmaniam Sundaranar University, Tirunelveli -627 012, Tamil Nadu, India.
[2]Professor, Department of Management Studies, Manonmaniam Sundaranar University, Tirunelveli -627 012, Tamil Nadu, India.

Abstract

In today's fast-paced business environment, digital technology is a transformative tool for entrepreneurs, enhancing operations, marketing, and innovation. This study examines how adopting digital technology affects business performance, comparing male and female entrepreneurs across marketing, developmental, and operational aspects. Literature highlights significant barriers women face in technology adoption, such as limited resources and societal norms, and emphasizes the role of gender-inclusive education and supportive networks. The analysis shows that female entrepreneurs prioritize performance enhancement and innovation, with high influence scores for overall performance and introducing recent trends. They report significant benefits in sustainability, such as solving survival issues and increasing customer numbers, along with operational enhancements such as avoid human errors and enhanced product quality. Male entrepreneurs display a balanced approach towards operational efficiency, showing somewhat influence across various factors. The results indicate distinct strategic orientations such as female entrepreneurs focus on innovation and performance, while male entrepreneurs emphasize operational efficiency. This information is essential for policymakers, business support organizations, and entrepreneurs, emphasizing the necessity for customized assistance in digital transformation efforts to address gender-specific challenges and opportunities, ultimately enhancing business performance and operational efficiency.

Keywords:

Digital technology, entrepreneurs, marketing, influence, sustainability.

Introduction

In today's rapidly evolving business environment, digital technology has revolutionized the landscape for entrepreneurs. Tools like social media, e-commerce platforms, and data analytics can fundamentally change the way businesses operate, market their products, and innovate. A survey by social insider on The Life of Social Media Managers revealed that 84.9% of users of social media analytics tools aimed to assess the effectiveness of their content. Additionally, 74.6% used these tools to gain insights into their

audience, and 68.8% utilized them for creating marketing reports ("25 Best"). However, the influence of these technologies can vary significantly depending on who is using them, specifically looking at differences based on gender.

This study dives into how digital technology affects business performance for male and female entrepreneurs. The aim is to explore how various groups utilize digital tools and the advantages they derive from their use.

Business survival, marketing effectiveness, sales growth, profitability, innovation, and operational efficiency are the important factors. By comparing these aspects, we can see patterns and differences in how different groups of entrepreneurs are leveraging digital technology to grow and improve their businesses.

The discoveries will offer valuable insights for policymakers, business support organizations, and entrepreneurs. By understanding the unique needs and priorities of various groups, we can better support their digital transformation efforts.

Literature Reviews

Orser, B., Riding, A., & Li, Y. (2019) examined the impact of technology adoption and gender-inclusive entrepreneurship education. It reveals that women face significant barriers, including limited resources and societal norms, while tailored education and strong networks significantly aid their technology adoption. Recommendations include developing gender-sensitive training programs, improving resource access, and fostering mentorship. The research emphasizes collaboration between educational institutions, policymakers, and industry to promote inclusivity and support technological advancement, aiming for a more dynamic and inclusive entrepreneurial landscape.

Chatterjee, S., Dutta Gupta, S., & Upadhyay, P. (2020) explored the literature on technology adoption and entrepreneurial mindset for rural women in India emphasizes the crucial role that technology plays in empowering these women entrepreneurs. Studies indicate that having access to technology improves market reach and corporate operations, leading to economic independence. However, obstacles like low digital literacy, poor infrastructure, and sociocultural limitations still exist. The study highlights the significance of customized training initiatives and policies that promote them to address these inequalities. Effective case studies demonstrate that rural women can make substantial contributions to economic growth when given the right assistance. This collection of works highlights the necessity of keeping up the focus on technology integration to enable rural women entrepreneurs.

de Bruin, A., Eversole, R., & Woods, C. (2024) explored in their research to fill in knowledge gaps in the existing literature by examining the correlation between gender and social entrepreneurship. It draws attention to the little-studied role that women play in social

entrepreneurship and how this industry has the capacity to empower women throughout the world. The results highlight how context shapes women's ambitions to start their own businesses and how social ventures have diverse effects in various cultural contexts. In its conclusion, the study makes a case for more research that takes intersectional perspectives into account, builds ecosystems of support, and assesses the wider social, economic, and environmental effects of gender-inclusive social entrepreneurship projects.

Ughetto et al., (2020) in their study highlights challenges faced by female entrepreneurs, including limited access to information, finance, and networks. The study explore how digital technologies can help women overcome these barriers, utilizing various methodologies. Results indicate that while digital tools provide new opportunities, they do not fully eliminate gender disparities. The conclusion suggests gender-sensitive policies and further research on digitalization's impact on female entrepreneurship.

Paoloni et al. (2019) explore how digital technologies empower women entrepreneurs by alleviating obstacles and fostering supportive networks. Through a thorough review of literature, it introduces a comprehensive framework for analyzing Digital Women Entrepreneurship, emphasizing the role of digital tools in surmounting entrepreneurial hurdles. The research identifies emerging trends and future research avenues in the intersection of women's entrepreneurship and digital technology, enhancing understanding of gender management through social media networking.

Sindakis, S., and Showkat, G. (2024) examines digital technology adoption in rural India, focusing on the impact of the Digital India Program (DIP). Data from 400 respondents in Kalahandi District, Odisha, were analyzed using SPSS. Findings reveal a predominantly young, educated population embracing digital technologies, with unexpectedly high adoption rates among women, challenging gender disparities. The study underscores the DIP's effectiveness in promoting digital inclusion and highlights a preference for mobile-based services over computers, suggesting a need for improved rural connectivity. Future efforts should prioritize enhancing mobile infrastructure to sustain digital engagement in rural communities.

Barra et al. (2024) examines how digital skills and gender influence entrepreneurial mindset among higher education students, using UTAUT (Unified Theory of Acceptance and Use of Technology) for technology adoption assessment in Pakistan. Findings highlight that digital skills and technology perceptions significantly impact ICT (Information and Communication Technology) adoption for entrepreneurship. The research underscores the role of technology adoption in fostering entrepreneurial intent and recommends strategies to bridge digital literacy and gender gaps for inclusive entrepreneurial development.

Kaur et al. (2023) investigates technology adoption among women in Indian entrepreneurs, examining its role as either an enabler or differentiator. Findings highlight benefits such as enhanced business management and customer engagement through platforms

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like social media and cloud computing. Challenges include perceived difficulty and skills gaps, impacting adoption and competitiveness. Policy recommendations stress the necessity for focused interventions to enhance digital literacy and empower women entrepreneurs in India.

Zapata-Huamani et al. (2019) This study examines gender's impact on technology entrepreneurship across 70 countries, finding that globally, women have a lower likelihood of starting technology-based ventures. However, in less-developed nations, women show a higher propensity for non-technology entrepreneurship. Conversely, in emerging economies, the deterrent effect on technology entrepreneurship is more prominent among women in comparison to developed nations.

Objective

The objective of this study is to analyze the impact of adopting digital technology on entrepreneurs' business performance across different dimensions, specifically comparing the differences based on gender. The study aims to understand how digital technology influences marketing, developmental, and operational aspects of businesses led by male versus female entrepreneurs.

Table 1

Sexwise distribution on the Influence of adopting Digital Technology

Factors	Variables	Male				Female			
		Wi	Ri	Wo	Ro	Wi	Ri	Wo	Ro
Marketing Aspects	Survival	3.32	SwI	2.97	SwI	3.43	SwI	3.13	SwI
	Marketing of products/services	2.90	SwI			3.38	SwI		
	Increasing Sales Turnover	3.08	SwI			3.38	SwI		
	Increasing Profitability	3.02	SwI			3.38	SwI		
	Increase in demand	2.95	SwI			2.88	SwI		
	Facing Competitors' Pressure	3	SwI			3.25	SwI		
	Receiving more enquiries	2.94	SwI			3	SwI		
	Converting prospects to customers	2.54	SwI			2.25	SI		
	Satisfying Customers' Expectations	2.88	SwI			2.86	SwI		
	Enhancing Overall Performance	3.07	SwI			3.5	HI		
Developmental Aspects	Introducing Recent trends	2.98	SwI			3.83	HI		
	Creating Uniqueness	2.76	SwI			3.67	HI		

	New Product Development	2.78	SwI	2.78	SwI	3.4	SwI	2.95	SwI
	High-Quality products/services	2.69	SwI			2.5	SwI		
	Ensuring Employees' Efficiency	2.73	SwI			2.83	SwI		
	Enhancing Productivity	2.91	SwI			2.25	SI		
	Generating Employment	2.63	SwI			2.14	SI		
Operational Aspects	Time-saving	2.83	SwI	2.88	SwI	3.14	SwI	2.80	SwI
	Reducing operational risks	2.51	SwI			1.71	SI		
	Easy to use	3.1	SwI			2.86	SwI		
	Information Security	3	SwI			3.17	SwI		
	Technology Upgradation	2.95	SwI			3.14	SwI		

(HI=High Influence, SwI=Somewhat Influence, SI=Slight Influence)

From the table 1, it is inferred that there is no difference in the strategic priorities of male and female entrepreneurs across marketing, developmental, and operational aspects. In the domain of marketing aspects, female entrepreneurs demonstrate a significant emphasis on enhancing overall performance, as evidenced by a high influence score of 3.50. This suggests that female entrepreneurs prioritize improving business efficacy and achieving high standards. Other marketing factors, such as survival, marketing of products/services, increasing sales turnover, and facing competitors' pressure, exhibit somewhat influence for both genders, indicating moderate prioritization in these areas without significant gender differences.

Examining developmental aspects, female entrepreneurs display a pronounced focus on innovation, with high influence scores of 3.83 for introducing recent trends and 3.67 for creating uniqueness. This reflects a strong drive among female entrepreneurs to differentiate their products and services in the market through innovation. In contrast, both male and female entrepreneurs generally show a somewhat influence in other developmental areas, suggesting a balanced but less intense focus on other aspects of business development.

Regarding operational aspects, male entrepreneurs show a somewhat influence across various dimensions, including time-saving, ease of use, information security, and technology upgradation, highlighting their balanced approach toward achieving operational efficiency. Female entrepreneurs also exhibit somewhat influence across these operational aspects, though they indicate a slight influence in reducing operational risks.

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Table 2

Sexwise distribution on Benefits experienced after adopting Digital Technology

Factors	Variables	Male				Female			
		Wi	Ri	Wo	Ro	Wi	Ri	Wo	Ro
Sustainability	Survival issues got solved	3.79	A	3.72	A	4.57	HA	3.92	A
	The number of customers have been increased	3.78	A			4	A		
	Demand forecasting is more relevant	3.21	N			3.17	N		
	Received orders from various locations	3.87	A			4	A		
	Revenue has been increased	3.96	A			3.88	A		
Operational benefits	Human errors got reduced	3.19	N	3.27	N	3.6	A	3.68	A
	Quality of products / services is high	3.42	N			3.83	A		
	Delivery of products/services done faster	3.21	N			3.6	A		

(HA=Highly Agree, A=Agree, N=Neutral)

From the table 2, it is known that female entrepreneurs report significantly higher influence scores in various sustainability factors after adopting digital technology. They indicate a highly agree (HA) in solving survival issues, with a score of 4.57, compared to males who have an agreed state (A) score of 3.79. This suggests that digital technology has been instrumental in addressing critical survival challenges for female entrepreneurs more effectively. Additionally, female entrepreneurs agreed(A) with the score of 4.00 for the increase in the number of customers and receiving orders from various locations, highlighting the substantial impact of digital technology on expanding their customer base and market reach.

Female entrepreneurs also show higher influence scores in operational benefits after adopting digital technology. They agreed (A) with the score of 3.68 for reducing human errors, compared to males who report a neutral (N)with the score of 3.19. This indicates that digital technology has significantly reduced human errors in female-led operations. Additionally, females agreed with the score of 3.83 for the quality of products/services and 3.60 for the faster delivery of products/services, compared to males who report neutral with

the scores of 3.42 and 3.21, respectively. These findings suggest that digital technology has greatly enhanced the quality and efficiency of operations for female entrepreneurs.

Findings

Many success stories illustrate the transformative potential of digital entrepreneurship. For example, Jane Doe, a digital entrepreneur, used social media platforms to create a successful online boutique, connecting with customers globally. Her journey inspires aspiring entrepreneurs, demonstrating the power of technology and innovation (“*Gender and”, 2024).*

1. **Marketing Aspects:** Female entrepreneurs showed a high influence (HI) in enhancing overall performance with a score of 3.50. They also demonstrated significant influence in marketing products/services, increasing sales turnover, and profitability, suggesting a strong focus on improving business efficacy and achieving high standards. Male entrepreneurs displayed somewhat influence (SwI) across these areas, indicating moderate prioritization without significant gender differences.
2. **Developmental Aspects:** Female entrepreneurs exhibited a pronounced focus on innovation, with high influence scores of 3.83 for introducing recent trends and 3.67 for creating uniqueness. This reflects a strong drive among female entrepreneurs to differentiate their products and services. Both genders showed somewhat influence in other developmental areas.
3. **Operational Aspects:** Male entrepreneurs showed somewhat influence across various operational factors, including time-saving, ease of use, information security, and technology upgradation, highlighting a balanced approach toward achieving operational efficiency. Female entrepreneurs also exhibited somewhat influence but had a slight influence in reducing operational risks.
4. **Benefits After Adopting Digital Technology:** Female entrepreneurs reported significantly higher influence scores in sustainability factors such as solving survival issues and increasing the number of customers. They also experienced higher impacts in operational aspects like reducing human errors and improving the quality of products/services.

Conclusion

The swift expansion of digital technologies is opening new avenues for growth and development, particularly in developing nations. However, the advantages of digitalization are not guaranteed, and women worldwide still encounter numerous barriers to thriving in the digital economy. These barriers are multifaceted, involving gender bias, reduced involvement in decision-making, limited digital skills, lack of trust, and unequal access to funding, among other challenges (“United Nations”, 2022).

The study concludes that the adoption of digital technology has differential impacts on entrepreneurs based on gender. Female entrepreneurs tend to prioritize enhancing performance and fostering innovation, while male entrepreneurs focus more on operational

efficiency. These findings underscore the distinct strategic orientations and business management approaches among different groups of entrepreneurs, highlighting the pivotal role of digital technology in enhancing business performance and operational efficiency.

References:

Barra, C., Grimaldi, M., Muazzam, A., Troisi, O., & Visvizi, A. (2024). Digital divide,gender gap, and entrepreneurial orientation: How to foster technology adoption among Pakistani higher education students? *Socio-Economic Planning Sciences*, *93*, 101904. https://doi.org/10.1016/j.seps.2024.101904

Chatterjee, S., Dutta Gupta, S., & Upadhyay, P. (2020). Technology adoption and entrepreneurial orientation for rural women: Evidence from India. *Technological Forecasting and Social Change*, *160*, 120236. https://doi.org/10.1016/j.techfore.2020.120236

de Bruin, A., Eversole, R., & Woods, C. (2024). Guest editorial: Gender and social entrepreneurship: building cumulative knowledge. *International Journal of Gender and Entrepreneurship*, *16*(1), 1–6. https://doi.org/10.1108/IJGE-03-2024-228

Gender and digital entrepreneurship: How to leverage technology and innovation for entrepreneurial success. (n.d.). FasterCapital. Retrieved July 7, 2024, from https://fastercapital.com/content/Gender-and-digital-entrepreneurship--How-to-leverage-technology-and-innovation-for-entrepreneurial-success.html

Kaur, S., Mahindru, R., Bagchi, S., Srinivasan, R., Sahoo, S. R., Devi, D., & Kaikini, R. R. (2023). TECHNOLOGY ADOPTION BY INDIAN WOMEN ENTREPRENEURS: AN ENABLER OR DIFFERENTIATOR? . . *Technology*, *27*(6).

Orser, B., Riding, A., & Li, Y. (2019). Technology adoption and gender-inclusive entrepreneurship education and training. *International Journal of Gender and Entrepreneurship*, *11*(3), 273–298. https://doi.org/10.1108/IJGE-02-2019-0026

Paoloni, P., Secundo, G., Ndou, V., & Modaffari, G. (2019). Women Entrepreneurship and Digital Technologies: Towards a Research Agenda. In P. Paoloni & R. Lombardi (Eds.), *Advances in Gender and Cultural Research in Business and Economics* (pp. 181–194). Springer International Publishing. https://doi.org/10.1007/978-3-030-00335-7_12

Sindakis, S., & Showkat, G. (2024). The digital revolution in India: Bridging the gap in rural technology adoption. *Journal of Innovation and Entrepreneurship*, *13*(1), 29. https://doi.org/10.1186/s13731-024-00380-w

ISSN PRINT 2319 1775 Online 2320 7876
 UGC CARE Listed (Group -I) Journal Volume 11, Iss 13, 2022

Ughetto, E., Rossi, M., Audretsch, D., & Lehmann, E. E. (2020). Female entrepreneurship in the digital era. *Small Business Economics*, *55*(2), 305–312. https://doi.org/10.1007/s11187-019-00298-8

United Nations Conference on Trade and Development. (2022). *Fostering Women Entrepreneurship in the Digital Economy: Insights from UNCTAD's eTrade for Women Advocates (2019-2021 Cohort).* https://unctad.org/system/files/official-document/dtlecdc2022d3_en.pdf

Zapata-Huamaní, G. A., Fernández-López, S., RodríguezGulías, M. J., & Rodeiro-Pazos, D. (2019). Technology Entrepreneurship and Gender in Emerging Countries. In V. Ratten, P. Jones, V. Braga, & C. S. Marques (Eds.), *Sustainable Entrepreneurship: The Role of Collaboration in the Global Economy* (pp. 47–62). Springer International Publishing. https://doi.org/10.1007/978-3-030-12342-0_4

25 Best Social Media Tools for 2024: The Ultimate Guide | Report Garden. (n.d.). Marketing Agency Software | Reportgarden. Retrieved July 7, 2024, from https://reportgarden.com/post/social-media-analytics-tools/