

# EMPOWERING WOMEN ENTREPRENEURS IN MALAYSIA THROUGH DIGITAL PARTICIPATION AND INNOVATION

MOHAMED SUHAIMI YUSOF<sup>1\*</sup>, NOORRAHA ABDUL RAZAK<sup>2</sup>,  
AZAHARI JAMALUDIN<sup>3</sup>,  
MUHAMAD NIZAM JALI<sup>4</sup>, SHAHRI ABU SEMAN<sup>5</sup>

<sup>1,2</sup> FACULTY OF BUSINESS AND ACCOUNTANCY, UNIVERSITI POLY-TECH MALAYSIA, MALAYSIA  
<sup>3,4,5</sup> INSTITUTE OF GRADUATE STUDIES, UNIVERSITI POLY-TECH MALAYSIA, MALAYSIA

\*Corresponding Author: [suhaimi@uptm.edu.my](mailto:suhaimi@uptm.edu.my)

**Abstract:** Women entrepreneurs are pivotal in Malaysia's economic growth, contributing significantly to GDP and employment, particularly within the SME sector. Despite their growing presence, systemic barriers such as limited access to financing, cultural norms, and societal expectations persist, restricting their potential for growth and innovation. This paper explores the challenges faced by women entrepreneurs in Malaysia and highlights the transformative role of digital technology in addressing these barriers. Digital tools, including e-commerce platforms, social media, and mobile applications, have enabled women entrepreneurs to expand their market reach, enhance operational efficiency, and balance professional and personal responsibilities. Government initiatives, such as eUsahawan and Go-eCommerce, have further supported digital participation, equipping women with critical skills and fostering an inclusive entrepreneurial ecosystem. The study emphasizes the broader societal impact of empowering women entrepreneurs through digital participation, including their contributions to job creation, community development, and gender equality. By leveraging digital innovation and fostering a supportive environment, Malaysia can unlock the full potential of women entrepreneurs, positioning them as key drivers of sustainable and inclusive economic growth.

**Keywords:** Women entrepreneurs, digital technology, Malaysian SMEs, empowerment, innovation

## 1. INTRODUCTION

Entrepreneurship plays a pivotal role in driving economic growth, innovation, and employment across the globe. Globally, small and medium enterprises (SMEs) account for a substantial portion of GDP and employment, with women entrepreneurs contributing significantly to this segment (Gundry et al., 2002; Hisrich & Brush, 1985). Over the past decade, the role of women in entrepreneurship has evolved from a niche area to a central focus in economic and development policies. Women entrepreneurs bring diverse perspectives, unique problem-solving approaches, and innovative business models that enrich the entrepreneurial landscape (Nguyen, 2005). In Malaysia, the role of women entrepreneurs has gained prominence due to their significant contributions to the economy. Women-owned businesses form a growing segment of SMEs, which collectively account for 38% of the country's GDP and employ more than 50% of the workforce (Alam et al., 2011; Department of Statistics Malaysia, 2024). These enterprises are particularly important in the service sector, where women have excelled in industries such as education, retail, and healthcare (Faradillah & Rahim, 2015). Despite their growing presence, many women entrepreneurs face systemic challenges that hinder their ability to scale and sustain their businesses.

### 1.1 Challenges Faced by Women Entrepreneurs

Women entrepreneurs face a multitude of barriers that stem from structural, cultural, and financial constraints. Access to financing is one of the most significant hurdles. Studies have shown that women often encounter difficulties in securing loans or venture capital due to gender biases in the financial sector (Van der Merwe, 2003; Gundry et al., 2002). In many cases, women are required to provide additional guarantees or rely on personal savings and family support to fund their ventures. This limitation not only constrains the growth of women-led businesses but also perpetuates economic disparities (The Asia Foundation, 2023; World Bank, 2023).

Cultural and societal norms also play a critical role in shaping the entrepreneurial experiences of women. In Malaysia, traditional gender roles often place greater domestic responsibilities on women, leaving them with less time and flexibility to focus on business activities (Nguyen, 2005). Additionally, societal expectations about women's roles in leadership and decision-making can undermine their confidence and limit their access to

professional networks and mentorship opportunities (Faradillah & Rahim, 2015; Warschauer, 2003; OECD, 2023).

### **1.2 The Role of Digital Technology**

Digital technology has emerged as a powerful tool for addressing many of the challenges faced by women entrepreneurs. The internet, social media platforms, and mobile applications provide cost-effective solutions for marketing, communication, and operations management (Livingstone & Helsper, 2007; Lim et al., 2023).

In Malaysia, digital participation has gained momentum among women entrepreneurs, with over 85% actively using online platforms for business activities (Faradillah & Rahim, 2015; Google & Temasek, 2023). E-commerce platforms such as Lazada, Shopee, and Facebook Marketplace have enabled women to expand their customer base beyond local markets and tap into regional and global audiences (Academia.edu, 2023; EIU, 2023). Social media, in particular, has become a vital marketing tool, allowing entrepreneurs to engage with customers, build brand loyalty, and showcase their products or services.

Furthermore, digital tools offer women entrepreneurs greater flexibility in managing their businesses. For instance, mobile banking and e-payment systems have simplified financial transactions, reducing reliance on physical infrastructure (Warschauer, 2003; Mastercard Foundation, 2022). Online collaboration platforms enable remote work and virtual team management, allowing women to balance professional and personal responsibilities more effectively (Livingstone & Helsper, 2007; PwC, 2023).

### **1.3 Opportunities and Government Initiatives**

The Malaysian government has recognized the transformative potential of digital technology and has introduced various initiatives to support women entrepreneurs. Programs such as eUsahawan and Go-eCommerce aim to enhance digital literacy and equip entrepreneurs with the skills needed to thrive in the digital economy (Alam et al., 2011). These initiatives provide training on digital marketing, financial management, and e-commerce operations, empowering women to leverage technology for business growth (OpenGovAsia, 2024; MDEC, 2023). Additionally, public and private partnerships have played a crucial role in fostering a supportive ecosystem for women entrepreneurs. For example, mentorship programs and networking events organized by organizations like the Women Entrepreneur Network Association (WENA) and SME Corp Malaysia provide valuable opportunities for women to connect with industry experts, share experiences, and gain insights into best practices (United Nations Malaysia, 2023; APEC, 2023).

### **1.4 The Transformative Impact of Digital Participation**

Digital participation not only addresses practical challenges but also contributes to the broader goal of empowerment. By enabling women to access information, build networks, and assert greater control over their businesses, digital tools foster confidence and independence (Livingstone & Helsper, 2007). Empowered entrepreneurs are more likely to innovate, take calculated risks, and contribute to their communities through job creation and economic development (Faradillah & Rahim, 2015; EIU, 2023).

For instance, women entrepreneurs who actively engaged with digital platforms reported higher levels of satisfaction and financial success compared to those who relied on traditional methods (Faradillah & Rahim, 2015). Digital tools have also been instrumental in enhancing work-life balance, as women can manage their businesses from home while fulfilling familial responsibilities (Warschauer, 2003).

The evolving role of women entrepreneurs in Malaysia reflects broader global trends in gender equality and economic empowerment. While significant progress has been made, there is a need for continued efforts to address systemic barriers and promote inclusive growth. Digital technology holds immense potential as a catalyst for change, providing women entrepreneurs with the tools and opportunities needed to succeed in an increasingly competitive and interconnected world. By fostering a supportive ecosystem and leveraging the power of digital innovation, stakeholders can ensure that women entrepreneurs play a central role in shaping Malaysia's economic future.

## **2. LITERATURE REVIEW**

The literature on women entrepreneurship reveals its transformative impact on economic growth, societal progress, and gender equality. Women entrepreneurs are increasingly recognized for their ability to innovate, create jobs, and contribute to GDP (Nambisan et al., 2019; Balogun et al., 2023). Despite this, they face systemic challenges such as financial constraints, societal biases, and limited access to networks (Teoh & Chong, 2014; Asia Foundation, 2023). Digital technology has emerged as a powerful enabler, allowing women to overcome traditional barriers and expand their businesses globally (UNDP, 2024; Abrahams et al., 2022). This section examines the key themes in the literature, including the challenges faced by women entrepreneurs, the role of digital participation, and the empowerment potential of entrepreneurship, while highlighting the interplay of global trends and the Malaysian context.

### **2.1 The Role of Women in Entrepreneurship**

The significance of women entrepreneurs in fostering economic development is increasingly acknowledged. Women entrepreneurs contribute to job creation, innovation, and GDP growth (Balogun et al., 2023; Nambisan et al., 2019). Their participation is often linked to broader societal benefits, including poverty reduction and social equality (Mordor Intelligence, 2023). Research highlights the distinct characteristics women bring to

entrepreneurship, including collaborative management styles and a focus on community-oriented goals (Teoh & Chong, 2014).

In the Malaysian context, women-owned enterprises are becoming more prominent, particularly in the service and retail sectors (Asia Foundation, 2023). Despite their growing contributions, women entrepreneurs often face systemic challenges that hinder their potential. These include limited access to finance, societal biases, and inadequate training opportunities (UNDP, 2024). Comparative studies emphasize that these barriers are not unique to Malaysia but prevalent across developing economies (Balogun et al., 2023).

## **2.2 Challenges Faced by Women Entrepreneurs**

Women entrepreneurs encounter a wide range of challenges, including financial constraints, societal expectations, and skill gaps. Access to financing remains one of the most significant barriers. Studies reveal that women are often perceived as risk-averse, leading to reduced opportunities for venture capital and bank loans (OECD, 2022; Teoh & Chong, 2014). This financial disparity impacts their ability to scale businesses effectively.

Societal norms also shape the entrepreneurial landscape for women. Traditional gender roles in Malaysia often limit women's ability to focus on professional endeavors (Asia Foundation, 2023). Cultural expectations frequently confine women to domestic responsibilities, creating a double burden for those pursuing entrepreneurship (Balogun et al., 2023). Additionally, women entrepreneurs face challenges in accessing professional networks, which are crucial for mentorship and resource sharing (Nambisan et al., 2019).

Digital literacy and infrastructure present another critical challenge. The digital divide disproportionately affects women in rural areas, limiting their ability to leverage online tools and platforms for business growth (UNDP, 2024). Studies underscore the need for targeted interventions to address these gaps, including digital literacy programs and affordable access to technology (Abrahams et al., 2022).

## **2.3 The Impact of Digital Participation**

Digital participation has redefined the entrepreneurial ecosystem, offering unprecedented opportunities for women entrepreneurs. Platforms such as Instagram, Facebook, and LinkedIn provide cost-effective solutions for marketing, customer engagement, and networking (Balogun et al., 2023). E-commerce platforms, including Lazada, Shopee, and Amazon, have enabled women entrepreneurs to expand their market reach globally, reducing dependence on local customers (Abrahams et al., 2022).

Digital tools also enhance operational efficiency. For instance, mobile banking applications and online payment systems simplify financial transactions, enabling entrepreneurs to manage cash flow and track expenses more effectively (OECD, 2022). Additionally, digital platforms facilitate real-time feedback from customers, empowering women entrepreneurs to innovate and adapt to market demands (UNDP, 2024).

The role of social media in fostering entrepreneurship cannot be overstated. Research demonstrates that social media platforms enable entrepreneurs to build brand identity and engage directly with consumers. In Malaysia, platforms like Instagram and TikTok are particularly popular among women entrepreneurs for showcasing products and connecting with audiences (Asia Foundation, 2023).

## **2.4 Empowerment Through Entrepreneurship**

Empowerment is a critical outcome of women's participation in entrepreneurship. Empowerment entails increased autonomy, financial independence, and enhanced decision-making abilities (Balogun et al., 2023). For women entrepreneurs, empowerment often translates to improved social standing and greater influence within their communities (Mordor Intelligence, 2023).

Digital tools play a transformative role in this process. Studies indicate that women who actively engage in digital platforms report higher levels of confidence and satisfaction (Abrahams et al., 2022). Online learning resources, such as webinars and tutorials, provide entrepreneurs with the knowledge needed to navigate complex business environments. Furthermore, digital participation fosters networking opportunities, allowing women to connect with mentors, peers, and industry experts (OECD, 2022).

Empowerment also extends to the personal domain. Research highlights the role of entrepreneurship in fostering self-reliance among women, enabling them to contribute to household income and make informed decisions about family welfare. These outcomes underscore the broader societal impact of women's entrepreneurship (UNDP, 2024).

## **2.5 Government Initiatives and Policy Interventions**

Government initiatives play a vital role in promoting women's entrepreneurship. In Malaysia, programs such as eUsahawan and Go-eCommerce aim to bridge the digital divide and provide women entrepreneurs with the tools needed to succeed in the digital economy (Asia Foundation, 2023). These programs offer training on topics such as digital marketing, e-commerce operations, and financial literacy, empowering women to leverage technology for business growth.

Public-private partnerships have also been instrumental in fostering a supportive ecosystem for women entrepreneurs. Organizations such as SME Corp Malaysia and the Women Entrepreneur Network Association (WENA) provide funding opportunities, mentorship programs, and networking events (UNDP, 2024). These initiatives address systemic barriers and create pathways for women to access resources and markets.

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and policy advocacy, aligning with global goals for gender equality and economic empowerment (Balogun et al., 2023).

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Public-private partnerships have also been instrumental in fostering a supportive ecosystem for women entrepreneurs. Organizations such as SME Corp Malaysia and the Women Entrepreneur Network Association (WENA) provide funding opportunities, mentorship programs, and networking events (Yunus & Hashim, 2019). These initiatives address systemic barriers and create pathways for women to access resources and markets (Jusoh et al., 2022). Furthermore, the Malaysian government's collaboration with platforms like Grab and Lazada has enhanced women entrepreneurs' access to digital marketplaces, improving their business outreach and competitiveness (Ibrahim et al., 2023).

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### **2.6 Theoretical Perspectives on Women Entrepreneurship**

Theories of entrepreneurship provide valuable insights into the factors influencing women's entrepreneurial success. Hisrich and Brush (1985) emphasize the importance of individual traits, such as risk-taking and innovation. However, contextual factors, including access to resources and societal support, are equally critical (Shane & Venkataraman, 2000; Van der Merwe, 2003).

Digital participation adds a new dimension to these theoretical frameworks. Livingstone and Helsper (2007) argue that digital inclusion enhances an entrepreneur's ability to achieve personal and professional goals. By leveraging digital tools, women entrepreneurs can overcome traditional barriers and access opportunities for growth and innovation (Rahman & Awang, 2022). Moreover, the digital ecosystem facilitates the creation of virtual support networks, which have been shown to enhance business success among women entrepreneurs (Zakaria et al., 2021). Recent studies also incorporate gendered perspectives into entrepreneurial theories, emphasizing how societal norms and gender roles influence entrepreneurial behavior (Brush et al., 2019). The integration of individual and contextual factors within these frameworks provides a comprehensive understanding of women's entrepreneurial journeys, particularly in the digital era (Carter et al., 2020; Dwivedi et al., 2021).

## **3. The Role of Digital Participation**

Digital participation has fundamentally reshaped the entrepreneurial ecosystem, offering unprecedented opportunities for women entrepreneurs to overcome traditional barriers and achieve sustainable growth. This section delves into the transformative impact of digital tools and platforms on entrepreneurship, drawing on global and Malaysian-specific studies to highlight key themes.

### **3.1 Expanding Market Reach**

One of the most significant benefits of digital participation is its ability to extend market reach. Platforms such as Facebook, Instagram, and TikTok enable entrepreneurs to connect with customers beyond local and national boundaries (Kapoor et al., 2021). In Malaysia, platforms like Lazada and Shopee have emerged as critical channels for women entrepreneurs to market and sell their products internationally (Jusoh et al., 2022). Studies by Idris et al. (2020) suggest that digital tools significantly lower entry barriers for women, allowing them to compete in markets previously dominated by larger, resource-rich enterprises.

Digital platforms also enhance visibility for small-scale businesses, enabling women to showcase their products and services in competitive marketplaces. As highlighted by Nambisan et al. (2019), these platforms provide opportunities to build brand identity and foster trust with diverse customer bases. By engaging with audiences in real time, women entrepreneurs can personalize their marketing strategies and adapt to customer needs effectively.

### **3.2 Enhancing Communication and Engagement**

Social media platforms have revolutionized the way entrepreneurs communicate with customers. Real-time engagement, personalized marketing, and customer feedback mechanisms empower women entrepreneurs to build strong relationships with their clientele (Gupta & Chauhan, 2020). Research by Kapoor et al. (2021) highlights the role of interactive content, such as live streaming and customer reviews, in fostering brand loyalty and driving sales. In Malaysia, these strategies have proven particularly effective in industries such as fashion, beauty, and handicrafts, where customer engagement is critical (Abdullah et al., 2022).

Moreover, digital communication tools facilitate professional networking and mentorship opportunities. Platforms such as LinkedIn and industry-specific forums enable women entrepreneurs to connect with experts, peers, and



investors (Dwivedi et al., 2021). This access to diverse networks enhances their business acumen and equips them with strategies for navigating challenges in competitive markets.

### **3.3 Operational Efficiency Through Technology**

Digital tools streamline business operations, enabling women entrepreneurs to manage their enterprises more effectively. Mobile banking applications and online payment gateways simplify financial transactions, while cloud-based software solutions enhance inventory management and data analytics (Goyal & Verma, 2022). In Malaysia, initiatives such as the adoption of QR code payment systems have further facilitated cashless transactions, making business processes more efficient and customer-friendly (Jusoh et al., 2022).

Advanced technologies, such as artificial intelligence (AI) and data analytics, are also transforming the operational strategies of women entrepreneurs. AI-powered chatbots, for instance, provide 24/7 customer support, allowing businesses to address inquiries promptly and improve customer satisfaction (Ismail et al., 2023). By leveraging these tools, women entrepreneurs can focus on strategic tasks, reducing manual workloads and operational inefficiencies.

### **3.4 Overcoming Societal Barriers**

Digital participation plays a crucial role in mitigating societal and cultural barriers. Women entrepreneurs often face challenges related to mobility and societal expectations regarding their roles in domestic settings (Nguyen et al., 2019). Digital platforms enable them to operate businesses from home, balancing professional and personal responsibilities more effectively (Ahmed et al., 2021). This flexibility has been particularly impactful in Malaysia, where many women entrepreneurs juggle multiple roles within their households (Abdullah et al., 2022).

Furthermore, digital tools create inclusive environments that minimize gender biases. As Goyal & Verma (2022) note, online platforms provide neutral spaces for collaboration and communication, allowing women to participate equally in business networks. In Malaysia, initiatives promoting digital literacy among women have empowered rural entrepreneurs to leverage these platforms effectively, bridging the gap between urban and rural business opportunities (Ismail et al., 2023).

### **3.5 Innovation and Adaptability**

Digital participation fosters innovation by providing women entrepreneurs with access to global trends, customer insights, and collaborative networks. Online communities and webinars allow entrepreneurs to share knowledge, exchange ideas, and stay updated on industry developments (Dwivedi et al., 2021). For example, Malaysian women entrepreneurs in the food and beverage sector have leveraged digital tools to introduce innovative products, catering to emerging consumer preferences (Jusoh et al., 2022). By aligning business practices with market trends, digital tools facilitate the adaptability needed to sustain competitive advantage.

The ability to innovate extends beyond product offerings. Women entrepreneurs are utilizing digital platforms to develop creative business models, such as subscription services and digital content monetization. These models not only diversify revenue streams but also enhance customer retention through value-added services (Nambisan et al., 2019).

### **3.6 Building Collaborative Ecosystems**

Digital participation enables the creation of collaborative ecosystems where entrepreneurs can connect with peers, mentors, and industry experts. Platforms such as LinkedIn and specialized entrepreneurial networks provide opportunities for knowledge sharing, partnership development, and community building (Dwivedi et al., 2021). In Malaysia, initiatives like the Women Entrepreneur Network Association (WENA) leverage digital tools to organize events and facilitate interactions, thereby strengthening the entrepreneurial community (Abdullah et al., 2022).

By harnessing these collaborative ecosystems, women entrepreneurs gain access to critical resources, including funding opportunities, mentorship programs, and industry insights. This connectivity not only enhances individual entrepreneurial capacity but also fosters collective growth within the ecosystem, amplifying the impact of women entrepreneurs on the national economy.

## **4. Entrepreneurship Characteristics and Empowerment**

Entrepreneurship is inherently linked to personal traits, skills, and the external environment. Women entrepreneurs in Malaysia, like their counterparts worldwide, exhibit specific characteristics that drive their success and contribute to empowerment. This section explores key traits such as risk-taking, innovation, adaptability, resilience, and leadership, alongside the transformative impact these characteristics have on empowerment.

### **4.1 Risk-Taking**

Risk-taking is often cited as a defining characteristic of successful entrepreneurs. For women entrepreneurs in Malaysia, the willingness to embrace calculated risks enables them to explore new markets, innovate products, and implement unconventional strategies (Shane & Venkataraman, 2000). Risk-taking also involves financial decisions, such as investing personal capital or seeking external funding to expand operations (Kelley et al., 2020). According to Gundry et al. (2021), risk-taking is not only essential for business growth but also for navigating uncertain environments, particularly in competitive industries such as technology and retail. Studies by Jusoh et al. (2022) and Bosma et al. (2021) further emphasize that women who adopt proactive approaches to risk management tend to outperform their peers in terms of financial performance and customer satisfaction.

In Malaysia, industries such as agriculture and manufacturing have witnessed the emergence of women entrepreneurs who took risks to adopt sustainable practices and technology-driven solutions (Idris et al., 2021). These risk-taking behaviors have set benchmarks for innovation while enhancing the overall market value of their products.

#### **4.2 Innovation**

Innovation is a cornerstone of entrepreneurial success and empowerment. Women entrepreneurs leverage their creativity and market knowledge to develop unique products and services that address specific customer needs (Abdullah et al., 2022). In Malaysia, sectors such as fashion, technology, and food have witnessed significant contributions from women entrepreneurs who prioritize innovation (Ismail et al., 2023). Nambisan et al. (2019) and Puffer et al. (2021) highlight that fostering an innovative mindset not only drives business growth but also enhances self-confidence and societal recognition.

The role of digital tools in fostering innovation cannot be overstated. Platforms such as social media, e-commerce, and analytics software provide entrepreneurs with insights into market trends, customer preferences, and competitive landscapes (Kapoor et al., 2021). By integrating these tools into their business operations, women entrepreneurs in Malaysia have successfully adapted to evolving consumer demands and technological advancements. For instance, digital campaigns launched by Malaysian women in the wellness sector have led to the creation of innovative fitness and nutrition solutions tailored to local needs (Rahman et al., 2020).

#### **4.3 Adaptability and Resilience**

The entrepreneurial journey is fraught with challenges, requiring adaptability and resilience to overcome obstacles. Women entrepreneurs often demonstrate exceptional adaptability, balancing their professional and personal responsibilities while navigating complex market dynamics (Nguyen et al., 2019). In Malaysia, this adaptability is evident in industries such as healthcare and education, where women entrepreneurs have introduced flexible service models to cater to diverse customer needs (Ali et al., 2022).

Resilience, defined as the ability to recover from setbacks, is equally critical for empowerment. According to Ahmed et al. (2021), resilience enables women entrepreneurs to persist in the face of adversity, whether related to financial constraints, societal biases, or operational challenges. During the COVID-19 pandemic, many Malaysian women entrepreneurs adapted by pivoting their business models to focus on e-commerce and home delivery services, demonstrating remarkable resilience (Goyal & Verma, 2022). Resilient entrepreneurs often inspire their communities, serving as role models for aspiring women in business (Hessels et al., 2021).

#### **4.4 Leadership and Networking**

Leadership is another defining characteristic of successful entrepreneurs. Women entrepreneurs in Malaysia exhibit strong leadership skills, guiding their teams toward achieving organizational goals while fostering inclusive workplace cultures (Dwivedi et al., 2021). Effective leadership enhances decision-making, promotes innovation, and builds organizational resilience (Ahl & Nelson, 2020).

Networking is a critical extension of leadership, enabling entrepreneurs to connect with peers, mentors, and industry experts. Studies by Goyal & Verma (2022) and Kelley et al. (2020) underscore the importance of networks in providing access to resources, knowledge, and market opportunities. In Malaysia, initiatives such as WENA have facilitated networking opportunities for women entrepreneurs, empowering them to expand their influence and achieve sustainable growth (Ali et al., 2022). Digital platforms have further enhanced networking by allowing women entrepreneurs to join virtual forums, webinars, and global communities where they can share experiences and collaborate on projects (Bosma et al., 2021).

#### **4.5 The Empowerment Framework**

Empowerment through entrepreneurship encompasses financial independence, improved self-esteem, and enhanced decision-making abilities (Warschauer, 2003). Women entrepreneurs in Malaysia have reported increased autonomy and societal recognition as direct outcomes of their entrepreneurial endeavors (Abdullah et al., 2022). Empowerment is further amplified through digital participation, which provides women with tools to manage businesses efficiently and access global markets (Kapoor et al., 2021; Kelley et al., 2020).

The empowerment process is multi-dimensional, involving both intrinsic and extrinsic factors. Intrinsic empowerment arises from personal growth, confidence, and skill acquisition, while extrinsic empowerment stems from financial stability, professional success, and social recognition (Ahmed et al., 2021). By integrating these dimensions, women entrepreneurs contribute to their households, communities, and the broader economy (Puffer et al., 2021).

#### **4.6 Socioeconomic Impacts of Empowered Women Entrepreneurs**

Empowered women entrepreneurs drive positive socioeconomic change by creating jobs, reducing poverty, and promoting gender equality. Their businesses often prioritize community-oriented goals, addressing social and environmental issues alongside financial objectives (Hessels et al., 2021). In Malaysia, women-led enterprises have introduced initiatives focused on sustainability, education, and healthcare, demonstrating the transformative potential of empowered entrepreneurs (Rahman et al., 2020).

These contributions extend beyond economic metrics, fostering inclusive growth and challenging traditional gender norms. Empowered women entrepreneurs serve as advocates for change, inspiring younger generations to

pursue entrepreneurial careers and embrace innovation (Dwivedi et al., 2021). Their success stories underscore the critical role of entrepreneurship in advancing societal progress..

## 5. DISCUSSION

The discussion section integrates the findings from the literature and analysis, focusing on the broader implications of digital participation, entrepreneurship characteristics, and empowerment for women entrepreneurs in Malaysia. This section highlights how these elements interact, challenges prevailing assumptions, and proposes actionable insights.

### 5.1 The Intersection of Digital Participation and Empowerment

Digital participation has emerged as a transformative force for women entrepreneurs, bridging gaps in accessibility, visibility, and operational efficiency. The integration of digital tools into entrepreneurial activities not only enhances productivity but also facilitates greater autonomy and decision-making (Kapoor et al., 2021; Nambisan et al., 2019). In Malaysia, government programs such as eUsahawan and Go-eCommerce have amplified these benefits by equipping women with digital literacy and access to e-commerce platforms (Jusoh et al., 2022; Ahmad et al., 2021). These platforms reduce entry barriers and foster scalability for small businesses (Ali et al., 2022).

Digital tools also empower women to challenge traditional norms. Women entrepreneurs leveraging digital marketing tools often achieve higher visibility in competitive markets, which reshapes societal perceptions and challenges gender roles (Puffer et al., 2021; Bosma et al., 2021). This increased visibility inspires other women to enter entrepreneurship, creating a multiplier effect of empowerment (Livingstone & Helsper, 2007; Rahman et al., 2020).

### 5.2 The Role of Entrepreneurship Characteristics in Business Growth

Entrepreneurship characteristics such as innovation, risk-taking, and adaptability are pivotal in determining the success and sustainability of women-led businesses. Malaysian women entrepreneurs have demonstrated resilience and adaptability, especially during crises such as the COVID-19 pandemic, by transitioning operations online and utilizing digital tools to sustain business growth (Ali et al., 2022; Dwivedi et al., 2021).

Risk-taking, often associated with entrepreneurial success, is increasingly evident among women entrepreneurs in Malaysia. Research highlights that women who embrace calculated risks—such as adopting digital technologies or entering untested markets—experience higher rates of innovation and business growth (Hessels et al., 2021; Kelley et al., 2020). Their willingness to take risks is further supported by mentorship programs and professional networks that mitigate risks and provide a safety net (Ahl & Nelson, 2020; Goyal & Verma, 2022).

### 5.3 Addressing Barriers Through Digital Tools

Barriers such as limited access to funding, societal biases, and lack of professional networks remain persistent challenges for women entrepreneurs (Carter & Marlow, 2007; Brush et al., 2019). Digital tools have proven instrumental in addressing these barriers by democratizing access to resources. Crowdfunding platforms, for instance, allow women entrepreneurs to secure funding while showcasing their ideas to global audiences (Zahra et al., 2020; Coleman et al., 2019).

Similarly, digital platforms facilitate networking and mentorship opportunities. Platforms like LinkedIn, WhatsApp business communities, and virtual forums enable Malaysian women entrepreneurs to connect with peers and investors, enhancing their business acumen (Bosma et al., 2021; Puffer et al., 2021). These networks also foster collective problem-solving, providing critical support in overcoming gender-specific barriers (Jamali et al., 2021; Ismail et al., 2023).

### 5.4 Societal Impacts of Empowered Women Entrepreneurs

Empowered women entrepreneurs contribute significantly to societal development by creating jobs, reducing poverty, and promoting gender equality (Jamali et al., 2021; Elam et al., 2019). Many women-led businesses in Malaysia prioritize sustainability and community-oriented goals, such as addressing rural development or improving access to education and healthcare (Idris et al., 2021; Yadav & Unni, 2016).

Moreover, women entrepreneurs challenge traditional gender norms by occupying leadership roles and influencing policy decisions. Their visibility and influence inspire younger generations to pursue entrepreneurship and challenge systemic biases (Ahl & Nelson, 2020; Hessels et al., 2021). This transformation supports an inclusive entrepreneurial ecosystem that values diversity and innovation (Kapoor et al., 2021; Dwivedi et al., 2021).

### 5.5 Policy Implications and Future Directions

The findings underscore the necessity for targeted policies and programs to support women entrepreneurs. Policymakers should focus on reducing gender bias in access to financing and addressing gaps in digital infrastructure, particularly in rural areas (Jamali et al., 2021; Coleman et al., 2019). Expanding initiatives such as eUsahawan to include advanced skills training, mentorship, and funding support can amplify the benefits for women entrepreneurs (Nambisan et al., 2019; Ahmad et al., 2021).

Future research should examine the long-term impacts of digital participation on women entrepreneurs in rural and underserved regions. Comparative studies across different cultural and economic contexts can also identify universal and context-specific elements of women's entrepreneurship (Brush et al., 2019; Kelley et al., 2020).

## **6. Recommendations**

The findings of this study underline the necessity of targeted actions to further empower women entrepreneurs in Malaysia. This section provides actionable recommendations across multiple dimensions, including policy, education, digital infrastructure, and societal support, to ensure the continued success of women-led businesses and their contribution to the economy.

### **6.1 Enhancing Digital Literacy and Skills Training**

Digital literacy is fundamental to maximizing the benefits of digital participation for women entrepreneurs. Policymakers and private organizations should collaborate to establish comprehensive training programs that equip women with the necessary skills to navigate digital platforms effectively. These programs should include modules on digital marketing, cybersecurity, data analytics, and e-commerce operations (Kapoor et al., 2021; Nambisan et al., 2019).

For instance, expanding initiatives like eUsahawan to rural and underserved areas can bridge the digital divide and enable more women to access online business opportunities (Jusoh et al., 2022). Training programs tailored to specific industries, such as agriculture, healthcare, and technology, will further enhance relevance and impact (Ahmed et al., 2021).

### **6.2 Expanding Access to Financial Resources**

Financial constraints remain a significant barrier for women entrepreneurs, necessitating targeted financial interventions. Governments and financial institutions should develop women-focused funding schemes, including low-interest loans, microfinance programs, and grants. Crowdfunding platforms can also be leveraged to connect women entrepreneurs with alternative financing sources, allowing them to showcase their ideas to a broader audience (Elam et al., 2019; Kelley et al., 2020).

Establishing mentorship programs to guide women in financial planning and investment strategies can help them build sustainable businesses. Additionally, creating partnerships between banks and entrepreneurial networks can facilitate the development of innovative financial products tailored to the needs of women entrepreneurs (Bosma et al., 2021; Brush et al., 2019).

### **6.3 Strengthening Networking and Mentorship Opportunities**

Networking and mentorship are critical components of entrepreneurial success. Women entrepreneurs benefit significantly from connections with peers, mentors, and industry leaders who provide guidance, share experiences, and open doors to new opportunities (Dwivedi et al., 2021; Puffer et al., 2021). Expanding platforms like the Women Entrepreneur Network Association (WENA) to include digital forums and virtual events can enhance accessibility and inclusivity (Ismail et al., 2023).

Mentorship programs should pair experienced entrepreneurs with emerging women business leaders to foster knowledge transfer and capacity building. These programs can be integrated into broader entrepreneurial initiatives, ensuring a structured approach to mentorship and networking (Carter & Marlow, 2007; Goyal & Verma, 2022).

### **6.4 Promoting Inclusive Policies and Societal Change**

Governments play a vital role in creating an enabling environment for women entrepreneurs. Policies that address systemic barriers, such as gender bias in financing and limited access to markets, are essential for fostering equality in entrepreneurship (Jamali et al., 2021). Gender-sensitive policies that incentivize women-led businesses, such as tax breaks and procurement preferences, can encourage more women to pursue entrepreneurship (Hessels et al., 2021).

Public awareness campaigns that highlight the successes of women entrepreneurs can challenge traditional gender norms and inspire societal change. Media coverage and storytelling initiatives can amplify these narratives, promoting the value of diversity and inclusion in entrepreneurship (Kapoor et al., 2021; Nguyen et al., 2019).

### **6.5 Leveraging Technology to Drive Innovation**

Technology offers immense potential to drive innovation among women entrepreneurs. Governments and private sector players should invest in creating innovation hubs and incubators that provide women with access to state-of-the-art facilities, tools, and mentorship. These hubs can foster collaboration and enable women to experiment with new ideas, develop prototypes, and scale their businesses (Nambisan et al., 2019; Zahra et al., 2020).

Additionally, encouraging the adoption of emerging technologies, such as artificial intelligence (AI), blockchain, and the Internet of Things (IoT), can help women entrepreneurs stay competitive in global markets. Providing training and resources to explore these technologies will further enhance innovation and adaptability (Goyal & Vera, 2022; Dwivedi et al., 2021).

### **6.6 Monitoring and Evaluating Impact**

Monitoring and evaluation frameworks are crucial for assessing the effectiveness of interventions and policies aimed at empowering women entrepreneurs. Establishing key performance indicators (KPIs) related to business growth, digital adoption, and societal impact can provide valuable insights into program outcomes (Ali et al., 2022; Brush et al., 2019).

Regular evaluations should involve feedback from women entrepreneurs to ensure that programs remain responsive to their needs. Collaboration between academia, government, and industry can enhance the rigor and relevance of these evaluations, ensuring that lessons learned inform future initiatives (Jamali et al., 2021; Zahra et al., 2020).



## 7. CONCLUSION

The empowerment of women entrepreneurs in Malaysia represents a transformative shift in both economic and societal paradigms. This study has highlighted how digital participation and the cultivation of entrepreneurial characteristics have enabled women to overcome systemic barriers, foster innovation, and contribute significantly to Malaysia's development. The findings emphasize that the integration of digital tools and entrepreneurial traits such as resilience, adaptability, and innovation are critical to achieving sustainable empowerment for women entrepreneurs.

Digital participation emerges as a cornerstone of this transformation. By leveraging online platforms, women entrepreneurs have extended their market reach, streamlined operations, and cultivated innovative business models (Kapoor et al., 2021; Nambisan et al., 2019). Initiatives such as eUsahawan demonstrate the potential of targeted interventions to bridge the digital divide and enable women in both urban and rural areas to access global opportunities (Jusoh et al., 2022). Furthermore, digital tools have amplified the visibility and societal recognition of women entrepreneurs, challenging traditional gender norms and inspiring future generations (Ahmed et al., 2021; Elam et al., 2019).

Entrepreneurial characteristics, particularly resilience and adaptability, have played a vital role in navigating challenges and seizing opportunities. The COVID-19 pandemic exemplified how women entrepreneurs in Malaysia harnessed these traits to pivot their business models, adapt to changing consumer behaviors, and sustain their ventures during unprecedented times (Ali et al., 2022; Bosma et al., 2021). Innovation, driven by an understanding of market trends and customer needs, has further positioned women entrepreneurs as leaders in industries such as technology, fashion, and food (Dwivedi et al., 2021; Goyal & Verma, 2022).

The implications of empowering women entrepreneurs extend far beyond individual success. Women-led businesses often prioritize community-oriented goals, addressing societal issues such as education, healthcare, and sustainability (Jamali et al., 2021; Puffer et al., 2021). Their ventures foster inclusive growth, reduce poverty, and promote gender equality, making them invaluable contributors to Malaysia's socioeconomic fabric. Empowered women entrepreneurs also serve as role models, inspiring younger generations to pursue entrepreneurial paths and challenge societal stereotypes (Hessels et al., 2021; Van der Merwe, 2003).

To fully harness the potential of women entrepreneurs, collaborative efforts between policymakers, private entities, and civil society are imperative. Gender-sensitive policies that address systemic barriers, such as limited access to funding and professional networks, must be prioritized (Carter & Marlow, 2007; Brush et al., 2019). Innovation hubs, mentorship programs, and training initiatives can equip women entrepreneurs with the skills and resources needed to thrive in competitive markets (Nambisan et al., 2019; Zahra et al., 2020). Additionally, public awareness campaigns that celebrate the achievements of women entrepreneurs can foster cultural shifts and reinforce the value of diversity in entrepreneurship (Kapoor et al., 2021; Kelley et al., 2020).

Future research should delve deeper into the intersectionality of barriers faced by women entrepreneurs, exploring how factors such as ethnicity, socioeconomic status, and geographic location influence their experiences. Comparative studies across different regions and industries can provide nuanced insights into the universal and context-specific aspects of women's entrepreneurship (Elam et al., 2019; Jamali et al., 2021). Furthermore, longitudinal studies that assess the long-term impact of digital participation on empowerment and business performance will contribute to a more comprehensive understanding of the challenges and opportunities in this field (Dwivedi et al., 2021; Ismail et al., 2023).

In conclusion, empowering women entrepreneurs is not merely an economic imperative but a societal necessity. Their contributions transcend financial metrics, enriching communities, challenging stereotypes, and shaping a more equitable future. By addressing systemic barriers, fostering innovation, and creating inclusive ecosystems, stakeholders can unlock the full potential of women entrepreneurs. The success stories of Malaysian women entrepreneurs serve as powerful testaments to the resilience, creativity, and transformative power of entrepreneurship, offering valuable lessons for nations around the world.

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