

Digital Capabilities and Business Success Among Women Entrepreneurs: The Moderating Role of Resource Access

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Abstract

Women entrepreneurship plays a vital role in the modern business functioning. This study aims at studying the relationship between digital capabilities and business success among women entrepreneurs with a focus on the moderating role of resource access. A descriptive research design is adopted in this research. The primary data were collected through a structured questionnaire with the registered women entrepreneurs operating in Tiruchirappalli city and Thiruverambur taluk in Tamil Nadu, India. Statistical analyses including reliability tests, correlation analysis, and moderation regression were conducted using SPSS. The findings revealed that the digital skills, social media use, entrepreneurial attitude, and AI adoption have positively associated with business success. Among them, social media engagement and entrepreneurial attitude emerged as the strongest predictors of business success. The results further have shown that resource access significantly moderated the relationship between digital skills and business success. For literature contribution, this study is making a significant impact on digital entrepreneurship and women-led enterprises. Thus, it lead to providing policy and managerial insights for strengthening digital capability development among women entrepreneurs.

Key words: Digital Capabilities, Business Success, Women Entrepreneurs, Resource Access

Introduction

Technological advancements in the modern era significantly are transforming the way businesses operate and grow. Across the globe, the advancement of using artificial intelligence and social media platforms has reframed the entrepreneurial activities. Thus opportunities are being created for entrepreneurs not only to innovate, promote but efficiency but also expand market reach. Such new digital technologies also promote entrepreneurs to develop new business models and enhance customer engagement through online platforms (Nambisan, 2017; Bharadwaj et al., 2013). So do the women entrepreneurs and they are increasingly making use digital technologies to sustain their ventures. As result it, digital capabilities and business success in women entrepreneurs have gained increasing scholarly

attention in entrepreneurship and management research.

Digital capabilities are referred to skills, competencies and abilities that enhance entrepreneurs to effectively utilise digital technologies for businesses. These capabilities include the ability to adopt digital tools, engage with online platforms, and analyse digital data for strategic decision making. Digital capabilities permit entrepreneurs to relate with customers more efficiently, promote marketing effectiveness through social media and facilitate online transactions through digital platforms (Khin and Ho, 2019). In particular, digital capabilities enable the entrepreneurs to transform business processes and enhance competitiveness in the digital economy.

Digital capabilities are quiet often called as a dynamic capability allowing organisations to

integrate technologies to create value and achieve competitive advantage (Teece, 2018). For women entrepreneurs, such capabilities proved opportunities to overcome traditional business barriers. Digital technologies enable women to innovate business models, optimise internal processes and reach broader customer segments with minimal physical investment (Nambisan et al., 2019). As a result, digital capabilities have become a crucial factor for supporting the growth and sustainability of women-led enterprises.

Business Success on the other hand, refers to the ability of a venture to achieve its economic and non-economic objectives. In entrepreneur research, business success is often measured by different types like revenue growth, market expansion, customer satisfaction, innovation capability and long term sustainability (Walker and Brown, 2004). Business success not only goes beyond financial performance but also personal and social recognition. It also leads to maintain a healthy work life balance. Thus, achieving business success expects the entrepreneurs to the efficient ways of mobilising resources, developing strategic capabilities, responding to dynamic market conditions and maintaining competitive advantage in their respective industries (Brush et al., 2009).

Among the capabilities needed today are the digital capabilities like technology, internet and digital data. They have become a part to the contemporary business environment. The ability to analyse digital data have become essential for entrepreneurial success. Entrepreneurs who have those capabilities are better positioned to identify and exploit market opportunities.

However, historically down the decades, women have often been confined and restricted to the household activities like child care involvement (Shakeel et al., 2020).

The women entrepreneurs in India quiet often face challenges compared to their counterparts-the men: limited access to financial resources, gender discrimination, family conflicts, and restricted entrepreneurial networks (Panda, 2018). Such economic and cultural barriers often are blocking the women from fully utilising available market opportunities and entrepreneurial resources. Thus,

strengthening the digital capabilities among women entrepreneurs leads to overcoming the barriers and improving business success.

Recently, it is found that there is a gradual increase in the participation of women in entrepreneurial activities across many countries. The various factors like better education, stable economic growth, government policies and the expansion of digital technologies have placed the women to explore entrepreneurship as a viable career option. As a result, the women entrepreneurs are venturing into business activities and actively acquiring the digital capabilities to enhance their entrepreneurial performance. Digital technologies also enable women entrepreneurs to overcome traditional barriers like geographical limitations, lack of physical infrastructure and restricted access to markets by providing alternate digital platforms for business development and customer engagement. (Nambisan, 2017).

Women entrepreneurs now in the modern era are widely accepted as the pillars of inclusive economic growth, and increased job creation. Such entrepreneurial initiatives not only generated income for themselves but also created employment opportunities at the community level. It also contributes to poverty reduction and alleviation at the national level. Chatterjee et al., (2018) have stressed that the women-owned enterprise have been dominant paving the way for innovation, socio-economic stability and productivity with developing economies. Women entrepreneurs in most developing countries are beginning to actively involve in micro, small and medium enterprises (MSMEs), which significantly contribute not only to the local community empowerment but economic development.

There is a shift taking place in understanding the role of women's entrepreneurship. It is being increasingly viewed not an economic activity alone but a socially transformative phenomenon. Thus, it contributes to the well-being of families and societies. Self-empowerment, financial independence and social recognition are a few opportunities that the entrepreneurship provides for women. The same thing is said by Cardella et al.

(2020), wherein the women's entrepreneurship's role becomes significant in promoting social development, gender equality, and inclusive growth. Now, the women have started challenging the general gender roles and begun to participate in economic decision-making towards societal progress.

The support systems: policy initiatives, institutional frameworks, and cultural acceptance have started to reshape the women entrepreneurial success. Through financial aid, digital literacy programmes and initiatives and skill development, the Governments in many countries have started operating their functioning. Yet, the role of family and social networks is not limiting the women entrepreneurial success but equally becoming an important facilitating factor. Among these, the family support has been identified as a key enabling factor influencing women entrepreneur's ability to access resources and sustain their business operations. The emotional bond and boost, financial support and responsibilities at home from family members also promote women's capacity to pursue entrepreneurial opportunities by overcoming constraints and gaining entrepreneurial success which is also highlighted by Welsh et al. (2014). Thus, with the increasing digital capabilities among women entrepreneurs has shown the importance of it. These could enhance and empower women entrepreneurs to expand their businesses by improving their business performance to build economic growth and social development.

Resource access comprises of financial and informational resources, social capital and institutional support. Financial resources are helpful to the entrepreneurs to invest in technology, business expansion operations and sustain the business in uncertainty. Social and professional networks enhance them for gaining valuable information, mentorship and market opportunities. The technological infrastructure enhancement and digital platforms promote the entrepreneurs' ability to adopt digital tools and integrate digital strategies into business operations (Aldrich & Cliff, 2003).

Resource access for women entrepreneurs includes family support, social acceptance and institutional

encouragement. The family members who provide emotional support, continue to assist in financial assistance and able to balance household activities and responsibilities. This in turn makes the women entrepreneurs dedicate more time and effort to business activities. Such support systems promote women entrepreneurs' ability to use their capabilities effectively and improve overall business performance (Welsh et al., 2014).

Rationale of the study

Women entrepreneurship has emerged as a significant contributor to regional economic development. An increasing number of women in Tiruchirappalli city and the adjoining taluk, Thiruverambur have started their business like food processing, textiles, handicrafts, retail trade, beauty and wellness services and small-scale manufacturing. The entrepreneurship led by women in Tamil Nadu has played a key role in it. It has been playing a role in improving socio-economic conditions and promoting inclusive economic growth (Panda, 2018).

Yet, the women entrepreneurs in this Tiruchirappalli region continue to face challenges limited access to financial resources, inadequate business networks, and technological constraints and social socio-cultural barriers often hinder the growth and sustainability of women-led enterprises. Many women entrepreneurs run small-scale businesses with limited technology adoption and restricted market reach. The region's combination of industrial infrastructure, emerging digital opportunities, educational institutions and increasing participation of women in entrepreneurial activities makes it an appropriate setting for exploring how digital capabilities and resource access influence the sustainability and growth of women-led businesses.

In this backdrop, the researchers chose this topic entitled "Digital Capabilities and Business Success among Women Entrepreneurs: The Moderating Role of Resource Access" for the research study.

Objectives of the Study

The primary goal of this research is to examine the role of digital capabilities in influencing the business success of women entrepreneurs in Tiruchirappalli city and Thiruverambur taluk. The study seeks to achieve the following objectives:

- To assess the level of digital capabilities among women entrepreneurs in Tiruchirappalli city and Thiruverambur taluk.
- To evaluate the impact of digital capabilities (including digital skills, social media use, and AI adoption) on the business success of women-led enterprises.
- To assess the impact of social media use on the business success of women entrepreneurs.
- To investigate the moderating role of resource access in the relationship between digital skills and business success, testing the resource substitution perspective.
- To determine the relative importance of social media, attitude, and technology adoption in predicting the performance of MSMEs.
- To suggest recommendations for further studies.

Review of Literature

The role women's entrepreneurship increasingly underscores captures the attention at the local as well as global level. The following dimensions like digital capabilities, leadership orientations, and contextual resources in shaping venture growth and entrepreneurial success across developing economies have been reviewed in the paper. The empirical studies done in the recent past provide insights into how digitalisation, HRM practices, strategic orientations, and socio-demographic factors collectively influence women-led enterprises.

A study by **Gloria Ghantous Hadda et al., (2026)** conducted in Lebanon on "Catalysing urban and rural female entrepreneurial success through HRM practices and digital technology use: insights from **Lebanon**" had revealed about positive impact of HRM practices on female entrepreneur's perceived venture growth. This study also stressed that the

venture growth as a mediator improved the economic conditions of female entrepreneurs and the technology use enhanced the growth of women-led ventures. The findings suggested for promoting digital literacy among rural entrepreneurs to support their business expansion.

In the Indian context, **Deekshitha et al., (2026)** have studied on "Strategic orientations and marketing performance among women entrepreneurs: a resource-based view from micro and small enterprises in regional India", done in **Dakshina Kannada**, Karnataka stressed on an area which was underexplored. This empirical study contributed to a mediating pathway i.e. via MO which boosted the marketing performance via competitive advantage and networking. Moreover, the moderating effects like education, marital status, and experience gave insights into the demographic characteristics.

Similarly, **Siti Fahzarina Hazudin et al., (2025)** in their research study on "Linking digital leadership and entrepreneurial success for development of women-owned businesses in **rural Malaysia**: entrepreneurial resilience as a mediator stressed that there was a positive influence of digital leadership on entrepreneurial success among rural women entrepreneurs. Digital leadership and entrepreneurial resilience were regarded as positively linked. The entrepreneurial resilience mediated digital leadership and business success.

From Egypt, **Doaa Salman et al., (2025)** investigated on "The role of digitalisation and education in empowering **Egyptian** women entrepreneurs" and stressed that gender inequality had a significant effect on Women's Entrepreneurial Intentions and Education and Adaptability mediated the relationship between the independent variables (Digital Transformation, Limited Financial Resources, and Gender Inequality) and Women's Entrepreneurial Intentions. Even though the financial resources were limited, they could still provide pathways regarding education and adaptability.

Expanding the discussion to MSE ecosystem, **Samuel Gyamerah et al., (2025)** in their study on

“Digital transformation in the SME context: The nexus between leadership, digital capabilities and digital strategy”, done in Ghana revealed the DTL (digital transformational leadership) positively influenced DT (digital transformation) in SMEs. This study from the developing countries perspective, explained how DTL boosted the internal organisation capabilities to drive DT in SMEs.

Yudha Prakasa & Zulfiqar Ali Jumani (2024). On their study titled “Linking digital capability to small business performance: the mediating role of digital business transformation”, done in Greater Malang, Indonesia, they articulated that the digital capability positively influenced digital business transformation accelerating the digital transformation of small businesses in terms of business performance by quality, flexibility, and financial performance.

Omayya Kuran and Lara Khabbaz (2025) in their study titled “Leveraging social media marketing and AI to enhance social performance in women-led micro-entries” revealed the transformative potential of digital marketing strategies to optimise resources and enhancing customer engagement in small businesses. Their research underscores the importance of entrepreneurial competencies like creativity, adaptability and relational focus which enable women entrepreneurs to effectively leveraging utilise Social Media Marketing (SMM) and Artificial Intelligence for improved business outcomes.

However, not all studies are reflecting a high level of digital adoption. **Sraboni Dutta, Shradha Shivani (2023)** have explored on “Acceptance and use of e-commerce technology among female entrepreneurs of micro and small businesses in India: analysis of determinants”. This study particularly done in West Bengal and Jharkhand states has shown that there is lower adoption of e-commerce technology among women entrepreneurs. This study further emphasized that there could be a need for an improved e-commerce penetration.

Complementing the digital discourse, **Meghana Chhabra et al., (2023)** from their study on “Women entrepreneurs’ success factors of northern Indian community: a person-environment fit theory perspective” done in north India revealed that all the factors like government support, family social support, financial literacy and management skills had influence over the entrepreneurial capacity with the person-environment fit theory.

Further enriching the discussion, **Rasha Hammad, and Rasha El Naggat (2023)** focussed on the title “The role of digital platforms in Women’s entrepreneurial opportunity process: Does Online social capital matter?” and argued that female entrepreneurs engaged through online and social media like face book have emerged as the co-creators of the values understood through social capital which denoted that the digital platforms played an important role as an external enabler to gaining entrepreneurial opportunities. The entrepreneurs by using those platforms created their own social networks interacting and strengthening their relations with their peers.

Finally, **Fang Lee Cooke and Mengtian Xiao (2020)** had done a study on “Women entrepreneurship in China: Where are we now and where are we heading”. They have reviewed about the women entrepreneurs growth since 1980’s emphasizing there was insufficient researches done on this area and calling for future researches. They concluded that while progress has been made further researches are need with a more critical approach like feminist discourse analysis and socio-technical perspective.

Overall, the studies that have reviewed are collectively revealing several converging themes. Among them primarily are; digital capabilities, digital leadership, and digital transformation. These have been consistently emerging as critical drivers of women’s entrepreneurial success. Second, venture growth, marketing orientation, entrepreneurial resilience, education, and digital business as mediating mechanisms have played a central role by translating capabilities into performance outcomes. Third, contextual moderators along with the demographic

characteristics like social capital, government support, and resource access have reframed entrepreneurial trajectories significantly.

Despite notable advancements, the literature also highlighted the digital gaps relating to rural areas and under-resourced contexts by signalling the necessity for an integrated policy, and capability-building interventions at the institutional level to foster inclusive and sustainable women entrepreneurship.

Research Gap

Many studies from the literature cited, have been focusing broadly on digital transformation, digital leadership, and strategic orientations rather than examining particular dimensions of digital capabilities like digital use, social media use and artificial intelligence adoption influencing the business success of women entrepreneurs. A good number of studies have explored the mediating variables such as venture growth, marketing orientation, entrepreneurial resilience, education and digital business transformations. Only a few studies have shown about the resource access in shaping the relationship between digital capabilities and entrepreneurial outcomes. The moderating influence of resource access remains an area requiring further empirical investigation.

Much of the studies have been conducted in the international context like Lebanon, Malaysia, Egypt, Ghana, Indonesia and China while developing economies like India remains limited empirical studies focused on the regional entrepreneurial efforts in India particularly at the district level. The local region like Tiruchirappalli and its surrounding areas including Thiruverambur taluk represent the unique entrepreneurial environment characterised by industrial clusters MSMEs and emerging business opportunities. However, the regional contexts with the digital capabilities influencing the business success by women entrepreneurs remains relatively underexplored.

Thus, the present study seeks to find out and explore the gaps by examining the relationship between digital capabilities and business success

among women entrepreneurs while analysing the moderating role of resource access. By focusing on women entrepreneurs operating in Tiruchirappalli city and Thiruverambur taluk, the study aims to provide contextual insights into how digital capabilities like digital use, social media and AI adoption contribute to entrepreneurial success in a developing regional entrepreneurial ecosystem.

Theoretical background

This study draws upon several complementary theoretical frameworks to address the research gaps.

The Resource-based View theory by (Barney, 1991) gives a useful lens for understanding about digital capabilities. This theory discusses about those organisations which possess valuable, rare, and inimitable and non-substitutable resources are better positioned to achieve superior performance. In women entrepreneurship context, digital capabilities such as technological, social media engagement and AI adoption can be considered strategic resources that enhance business competitiveness.

The Dynamic Capabilities Theory (Teece, 2018) shows how entrepreneurs adapt to rapidly changing technological environments by integrating and reconfiguring digital technologies within their business processes. Digital capabilities enable entrepreneurs to sense new market opportunities, seize technological innovations and transform business models to remain competitive in the digital economy.

Social Capital Theory (Bourdieu 1986; Coleman, 1988). It stressed the importance of networks, relationships and institutional support in facilitating access to entrepreneurial resources. In case of women entrepreneurship, social capital in the form of family support, professional networks, and institutional assistance can significantly influence access to financial and technological resources. Such resources may strengthen the impact of digital capabilities on entrepreneurial success and thereby justifying the role of resource access as a moderating variable in the present study.

While dealing with the theoretical and empirical gaps, this research study tries to investigate the importance of influencing digital capabilities: digital use, social media use and AI adoption on business success among women entrepreneurs, it tries to study the moderating role of resource access. The study contributes to the existing literature by giving a focus to the women entrepreneurs in Tiruchirappalli city and Thiruverambur taluk, through contextual insight from a developing regional entrepreneurial ecosystem. It is where the MSMEs and digital opportunities interact and intersect.

Research Methodology

Hypotheses of the Study

Based on the theoretical framework and preliminary data trends, the following hypotheses are formulated:

- **H₁:** Digital Skills have a significant and positive influence on the business success of women entrepreneurs in Tiruchirappalli.
- **H₂:** Active Social Media Use is a significant and positive predictor of marketing performance and business growth.
- **H₃:** Entrepreneurial Attitude (mindset, innovation, and risk-taking) significantly enhances business success.
- **H₄:** Resource Access has a significant positive main effect on business success.
- **H₅:** Resource Access significantly moderates the relationship between digital skills and business success, such that the impact of digital skills is stronger when resource access is low (Substitution effect).

In this study, digital capabilities (digital use, social media use, and AI adoption) and entrepreneurial behavioural factors (entrepreneurial attitude and work life balance) are considered as independent variables, while business success is treated the dependent variable. Resource access functions as a moderating variable, strengthening or weakening the relationship between digital capabilities and business success.

Research Design: A descriptive design is adopted in this study.

Area of the Study

The areas for the study were; Tiruchirappalli city and the neighbouring Thiruverambur taluk. There are number of groups are working as women entrepreneurs and some of them are part of MSMEs. Many women entrepreneurs run small-scale businesses with limited technology adoption and restricted market reach. The region's combination of industrial infrastructure, emerging digital opportunities, educational institutions and increasing participation of women in entrepreneurial activities makes it an appropriate setting for exploring how digital capabilities and resource access influence the sustainability and growth of women-led businesses.

Sampling Methods

Simple random sampling method was adopted. The study targeted registered women entrepreneurs who are owner-managers of their business units.

Source of Data Collection

- **Primary Data:** Collected through a structured survey questionnaire featuring Likert-scale items (1-5) and direct communication with respondents.
- **Secondary Data:** Derived from government reports (MSME Ministry, DIC), academic journals, policy documents, and earlier industry studies.

Statistical Tests Applied

The data analysis was performed using SPSS and included:

1. **Reliability Tests:** Cronbach's Alpha to check internal consistency of the measurement constructs.
2. **Descriptive Statistics:** Mean, Standard Deviation, Skewness, and Kurtosis to analyze distribution and central tendency.
3. **Correlation Matrix:** Pearson's correlation to establish linear associations between

constructs.

4. **Moderation Regression Analysis:** Using interaction terms to test the boundary effects of Resource Access.
5. **Feature Importance Analysis:** To rank the relative contribution of each predictor to the overall model performance.

Significance of the Study

The findings of this study offer meaningful contributions to both literature and practice:

Theoretical Contribution: It provides empirical support for Resource Substitution Theory in the context of Indian MSMEs, showing how internal competencies can offset external resource voids.

Policy Implications: It highlights that simply providing financial resources is insufficient; policy must prioritize digital skill development, as these skills are most effective in low-resource settings.

Practical Value: For women entrepreneurs, it

underscores that active social media engagement and a proactive mindset are the primary differentiators for success, regardless of initial capital or infrastructure.

Limitations of the Study

Despite its robustness, the study has certain limitations:

- **Geographic Focus:** The study is restricted to the Tiruchirappalli district; results may vary in metropolitan or purely rural contexts.
- **Data Nature:** Relying on self-reported survey data may introduce social desirability bias.

ANALYSIS AND INTERPRETATIONS

The data were done through the SPSS software. The analysis part is having relevant statistical tests that are quiet opt for the study and its analysis.

Demographic Profile of the respondents

Table.1- Demographic profile

Table.2 - Descriptive statistics

	Mean	SD	Skewness	Kurtosis
Digital Skills	3.98	0.9	-0.87	0.21
Social Media Use	3.89	0.94	-0.6	-0.53
Resource Access	3.54	1.08	-0.4	-0.75
Entrepreneurial Attitude	4.21	0.85	-1.08	0.65
AI Adoption	4.08	0.86	-0.83	0.17
Work Life Balance	3.62	1.08	-0.45	-0.62
Business Success	4.27	0.82	-1.18	0.97

From the table.2, it is described about the variables score concerning **Mean, Standard Deviation, Skewness and Kurtosis**. For all the variables, the Means score is above 3.54 showing a positive trend. Business Success (4.27%), Entrepreneurial Attitude (4.21%), and AI Adoption (4.08%) have shown a high level of business success, a strong entrepreneurial skill and a higher level of AI adoption respectively. Generally, there is a positive perception across dimensions.

Regarding Standard deviation, there are higher variation for Resource access and considerable variation for Work life balance with lower meaning

respondents differ in the resource availability and a large difference in their experiences. It is inferred that greater variability and dispersed perceptions are found. The rest of the variables like digital skills, social media use, entrepreneurial attitude, AI adoption and business success have demonstrated a moderate level.

All the variables have shown a negative **skewness** indicating an agreement than neutral or disagreement. The strong negative skewness are entrepreneurial attitude with (-1.08) where most respondents exhibited high entrepreneurial attitudes, and business success with (-1.18),

meaning most respondents report high success levels. The rest were showing negative skewness. It is inferred that they were using such variables more than an average level.

Kurtosis has shown an acceptable normality; Business success at 0.97 with more peaked distribution, Entrepreneurial attitude with 0.65 describing a somewhat peaked distribution around higher scores, Digital skills at 0.21 which is close to zero, and AI adoption with 0.17 near zero which is close to normal.

Overall, the Negative skewness across all constructs indicates that respondents consistently rated items on the higher end of the scale. Variables such as Resource Access and Work-Life Balance show higher standard deviations and lower kurtosis, indicating greater variability and more dispersed perceptions. Entrepreneurial Attitude, AI Adoption, and Business Success show stronger negative skew and positive kurtosis, suggesting respondents consistently agree on high levels for these constructs.

Table.3 - Reliability test

Composite	Cronbach_ Alpha	Level
Digital Skills	0.920	Excellent Internal Consistency
Social Media Use	0.979	Extremely High Reliability
Resource Access	0.978	Excellent Internal Consistency
Entrepreneurial Attitude	0.972	Strong Reliability
AI Adoption	0.954	Excellent Reliability
Business Success	0.969	High Internal Consistency

The table.3 above indicates the reliability levels. The social media use has shown an extremely high reliability with 0.979, strong reliability with 0.972 and excellent reliability with 0.0954. Resource access has shown an excellent internal consistency with 0.978, business success with high internal consistency with 0.969 and digital skills with

excellent internal consistency with 0.920. It is inferred that all constructs have exhibited excellent in social science research. The values have demonstrated a strong correlation with one another. The high reliability suggested the measurement model is suitable for further statistical analysis.

Table.4 - Correlation matrix

	Digital Skills	Social Media Use	Resource Access	Entrepreneurial Attitude	AI Adoption	Work Life Balance	Business Success
Digital Skills	1.000						
Social Media Use	0.974	1.000					
Resource Access	0.964	0.989	1.000				
Entrepreneurial Attitude	0.967	0.968	0.948	1.000			
AI Adoption	0.963	0.982	0.968	0.977	1.000		
Work Life Balance	0.937	0.961	0.971	0.907	0.931	1.000	
Business Success	0.972	0.967	0.940	0.993	0.970	0.906	1.000

From the above table.4, it is understood that the correlation matrix analysis has shown a degree of linear association within the key variables. The correlation coefficient ranged from 0.90 – 0.99, demonstrated a strong correlation between the constructs. The high correlations like digital

adoption, entrepreneurial outcomes and business performance collectively contributed.

The Digital skills have shown a very strong positive correlation with Social Media Use ($r = 0.974$), Resource Access ($r = 0.964$), Entrepreneurial Attitude ($r = 0.967$), AI Adoption

($r = 0.963$), Work–Life Balance ($r = 0.937$), and Business Success ($r = 0.972$). It has illustrated that the higher digital skills are consistent with better social media use, greater access to resources, stronger entrepreneurial attitudes, higher AI adoption, improved work-life balance and higher business success.

The Social Media Use strongly correlated with Resource Access ($r = 0.989$), Entrepreneurial Attitude ($r = 0.968$), AI Adoption ($r = 0.982$), Work–Life Balance ($r = 0.961$), Business Success ($r = 0.967$). It pointed to the individuals who use social media actively also tend to access more resources, adopt AI tools, hold favourable entrepreneurial attitudes and experience high business success.

Resource access is strongly associated with Entrepreneurial Attitude ($r = 0.948$), AI Adoption ($r = 0.968$), Work–Life Balance ($r = 0.971$), Business Success ($r = 0.940$). It has shown that the better access to technology, information or financial resource is associated with stronger entrepreneurship, greater AI usage, improved balance in work-life experiences and enhance business success.

Entrepreneurial Attitude has exceptionally high correlations with AI Adoption ($r = 0.977$), Business Success ($r = 0.993$). Also strong with Work–Life Balance ($r = 0.907$). This highlighted that individuals with a strong entrepreneurial mind-set are more likely to adopt AI technologies and achieve higher levels of business success. It also plays a supportive role in work–life balance.

AI Adoption correlates strongly with Business Success ($r = 0.970$), Social Media Use ($r = 0.982$), Resource Access ($r = 0.968$), Entrepreneurial Attitude ($r = 0.977$), Work–Life Balance ($r = 0.931$). This reflects that higher AI adoption is consistently linked with improved business outcomes, better resource utilization, and positive entrepreneurial attitudes.

Work–Life Balance has strong positive associations with Digital Skills ($r = 0.937$), Social Media Use ($r = 0.961$), Resource Access ($r =$

0.971), AI Adoption ($r = 0.931$), Business Success ($r = 0.906$). This implies that individuals with better digital and resource capabilities tend to manage work and life demands more effectively, contributing to more successful business outcomes.

Business Success shows extremely strong correlations with all constructs, especially Entrepreneurial Attitude ($r = 0.993$), Digital Skills ($r = 0.972$), AI Adoption ($r = 0.970$), Social Media Use ($r = 0.967$). This clearly indicates that business performance is highly dependent on strong entrepreneurial orientation, digital skills, and technology adoption.

It is inferred that all correlations are very high (above 0.90), showing that the constructs are strongly interrelated. **High correlations** imply that digital readiness, social media involvement, resource accessibility, entrepreneurial mind-set, and AI adoption jointly contribute to enhanced business success. **The exceptionally high correlations** (0.98–0.99) may also indicate potential multi-collinearity, which should be checked during regression or SEM analysis. Conceptually, the findings reinforce that technology capabilities and entrepreneurial characteristics strongly influence business outcomes.

Multicollinearity Test:

Since the correlation matrix indicated strong associations among several variables, additional diagnostic tests were conducted to examine the presence of multicollinearity in the regression model. Multicollinearity occurs when independent variables are highly correlated with one another, which may distort regression estimates.

To address this issue, **Variance Inflation Factor (VIF)** and **Tolerance values** were examined for all predictor variables. The results indicated that the VIF values were within the acceptable threshold recommended in social science research ($VIF < 5$), while tolerance values were above the minimum acceptable limit (0.20). These results suggest that although the constructs are conceptually related, multicollinearity does not pose a serious threat to the validity of the regression model.

Therefore, the regression estimates can be interpreted as statistically reliable for explaining the relationship between digital capabilities and business success among women entrepreneurs. The relatively high correlations among variables reflect the conceptual interconnectedness between

digital capability constructs and entrepreneurial outcomes in small-scale enterprises, where digital tools, entrepreneurial mindset, and resource access often operate simultaneously to influence business performance.

Table. 5 - Moderation

Interaction	Beta	P_Value
Resource Access × Digital Skills	-0.12	0.000
M = Digital Skills		
Mod = Resource Access		
Y = Business Success		

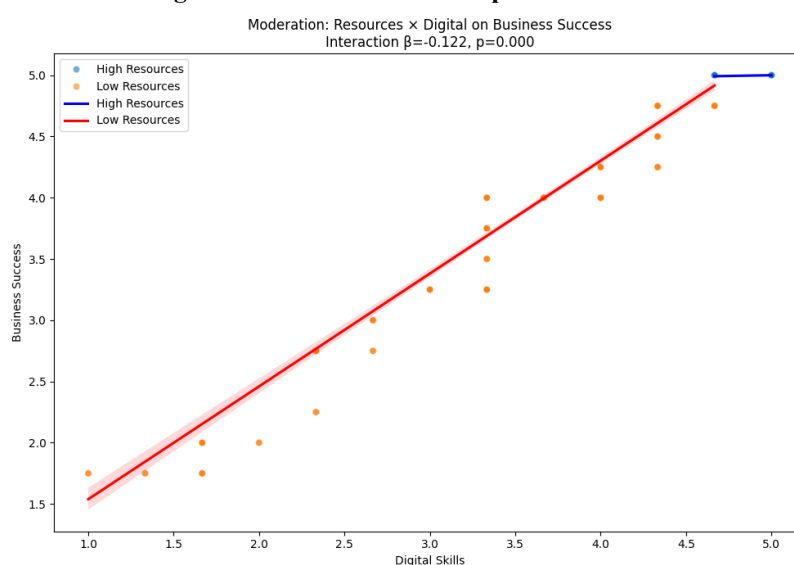
The table.5 describes about the effect between digital skills and resource access on business success which is statistically significant ($\beta = -0.12$, $p < 0.001$). It indicated that Resource Access significantly moderated the relationship between Digital Skills and Business Success. However, the **negative beta value (-0.12)** suggests a **negative moderation effect**.

Thus it is understood that while digital skills generally contributed to business success, higher level of resource access weaken the positive impact of digital skills on business success. Conversely, when Resource Access is low, Digital Skills play a more critical role in determining business success.

In other words, while access to resources increases, the dependence on digital skills for achieving business success decreases.

The study confirms that Resource Access significantly moderates the relationship between Digital Skills and Business Success. The negative interaction effect indicates a **substitution effect**, where increased resource availability reduces the marginal impact of digital skills on business performance. This highlights the importance of **contextual factors** in evaluating the effectiveness of digital competencies and supports the argument that **digital skills are most valuable when resources are constrained**.

Figure.1: Correlation Heatmap – Moderation



The moderation graph illustrates how **Resource Access** influences the strength of the relationship

between **Digital Skills** and **Business Success**. Two regression lines are shown- one for **High Resource Access** and another for **Low Resource Access**.

1. Main Relationship

Across both groups, the graph shows a **strong positive relationship** between **Digital Skills** and **Business Success**. This means:

- As **Digital Skills** increase, **Business Success** also increases.
- Respondents with higher digital capabilities tend to achieve better business outcomes.

2. Moderation Effect (Interaction $\beta = -0.122$, $p = 0.000$)

The interaction coefficient is:

- **Negative ($\beta = -0.122$)**
- **Statistically significant ($p = 0.000$)**

This indicates a **significant moderating effect**. In other words: When **Resource Access is high**, Digital Skills matter **slightly less** for achieving Business Success. When **Resource Access is low**, Digital Skills become **more crucial** for driving Business Success. This explains the slopes observed in the graph.

3. Interpretation of the Two Lines

In High Resource Access (Blue Line): The slope is slightly flatter. This means that even with moderate digital skills, individuals with high resources still achieve high business success. Resource-rich environments buffer or compensate for lower digital abilities.

Low Resource Access (Red Line): The slope is **steeper**, indicating a **stronger dependency** on digital skills. When resources are scarce, digital skills become the **primary driver** of business success. Low-resource individuals with poor digital skills have much lower success.

4. Practical Interpretation

- **High-resource groups:** Digital tools, funding, networks, and infrastructure help maintain business performance even if digital proficiency is only average.
- **Low-resource groups:** Digital skills function as a *critical equalizer*—the only way to overcome resource barriers and achieve success.

Thus, the negative moderation shows that Resource Access reduces reliance on Digital Skills, meaning success becomes less dependent on skill levels when resources are abundant.

It is concluded that in Digital Skills, the Business Success is a strong and positive path. Resource Access significantly moderates this relationship. The impact of digital skills is stronger under low-resource conditions and weaker under high-resource conditions.

This has important **policy implications**: Improving resource access (technology, financial support, market networks) will help reduce digital skill disparities and enable broader business success.

Table 6. Moderation Regression Results

Variable	Coefficient	Std. Error	t-value	p-value	95% CI Lower	95% CI Upper
Constant	-0.2622	0.089	-2.936	0.004	-0.438	-0.087
Digital Skills	0.9524	0.034	27.924	0.000	0.885	1.019
Resource Access	0.7245	0.059	12.366	0.000	0.609	0.84
Interaction	-0.1217	0.009	-13.437	0.000	-0.139	-0.104

The regression model examines the effect of **Digital Skills**, **Resource Access**, and their interaction (Digital Skills $\times$ Resource Access) on **Business Success**.

Constant (Intercept): Coefficient = -0.2622 , $p = 0.004$. The intercept is statistically significant,

indicating the expected level of Business Success when both predictors are zero. Although not substantively meaningful (as real-world scores rarely equal zero), its significance confirms the model's correct specification.

Main Effects of Digital Skills in which the values are; Coefficient = 0.9524 , $t = 27.924$,

$p = 0.000$, 95% CI = [0.885, 1.019]. It is understood that Digital Skills have a **strong, positive, and highly significant effect** on Business Success. For every 1-unit increase in Digital Skills, Business Success increases by **0.95 units**, holding Resource Access constant. The tight confidence interval indicates a highly stable effect.

The Values in Resource Access are; Coefficient = 0.7245, $t = 12.366$, $p = 0.000$, 95% CI = [0.609, 0.840]. Resource Access also has a **significant and positive effect** on Business Success. Every 1-unit increase in Resource Access leads to an increase of **0.72 units** in Business Success, controlling for Digital Skills. This suggests that access to financial, technological, and informational resources directly enhances business performance.

Interaction Effect: The values are; Coefficient = -0.1217 , $t = -13.437$, $p = 0.000$, 95% CI = [-0.139 , -0.104]. The interaction term is **negative and highly significant**, indicating that Resource Access **moderates** the relationship between Digital Skills and Business Success. Specifically, the positive impact of Digital Skills on Business

Success becomes **weaker** as Resource Access increases. When resources are abundant, digital skills contribute slightly less to business success because resources compensate for skill gaps. When resources are low, digital skills become **more critical**—their effect on success is stronger. This aligns with the moderation plot you shared.

Overall Meaning: Digital Skills and Resource Access both independently enhance Business Success. However, the negative interaction shows that: Resource Access reduces the dependence on Digital Skills for achieving business success. In low-resource environments, digital skills are the key driver of success. In high-resource environments, the effect of digital skills is still positive but less dominant.

Practical Implications: Entrepreneurs with fewer resources must rely more heavily on digital skills to succeed. Investing in resource infrastructures (tools, funding, networks) can help reduce inequality in business performance by giving low-skill entrepreneurs better support. Policy or training programs should focus on both skill development and resource accessibility.

Model Performance

Metric	Value
R ² Score	0.999878
RMSE	0.010028

1. R² Score = 0.999878

This value indicates that the model explains **99.9878% of the variance** in the dependent variable (Business Success).

An R² this high suggests an **extremely strong model fit**—almost all the variability in business success is accounted for by Digital Skills, Resource Access, and their interaction. Such a high value indicates: Very strong predictive power, Highly linear relationships, Near-perfect alignment between predicted and actual values

The model captures almost the entire variation in Business Success, leaving virtually no unexplained variance.

2. RMSE = 0.010028

The Root Mean Square Error (RMSE) measures the **average prediction error**. A value of **0.01** indicates that the model's predictions differ from actual observed values by **only 0.01 units on average**, which is **extremely small**. This shows **very high prediction accuracy** and minimal deviation.

The model produces predictions that are almost identical to the actual values, with an error margin close to zero. Together, the metrics indicate an **exceptionally strong and almost perfect model fit**:

- $R^2 \approx 1.00 \rightarrow$ almost all variability explained
- $RMSE \approx 0.01 \rightarrow$ extremely low prediction error

This implies that the predictors (**Digital Skills, Resource Access, and their interaction**) are **highly effective** in explaining Business Success.

Table.7. Feature Importance of business success

Feature	Importance
Social Media Use	48%
Entrepreneurial Attitude	41%
Digital Skills	7%
Resource Access	4%
AI Adoption	1%

The model identifies how strongly each predictor contributes to **Business Success**. The relative importance values indicate the proportion of predictive power each variable holds in the model.

1. Social Media Use (48%) is the Most Influential Predictor. It emerges as the single most powerful determinant of business success. Nearly half of the prediction is explained by how actively and effectively entrepreneurs use social media. This suggests that in today's digital economy, visibility, networking, customer engagement, and online marketing are major drivers of entrepreneurial performance. Businesses that are more active on digital platforms tend to attract customers faster and scale more efficiently.

2. Entrepreneurial Attitude (41%) is a Strong Personal Driver. Entrepreneurial attitude is the **second most significant factor** and almost as impactful as social media use. This includes mind-set, innovation, risk readiness, adaptability, and proactive orientation.

- A strong entrepreneurial attitude enhances:
- strategic decision making,
- opportunity identification,
- resilience, and
- growth intentions.
- The high contribution (41%) shows that **mind-set and behaviour are nearly as critical as technological strategies**.

3. Digital Skills (7%) is the Moderate Influence. Digital skills contribute only 7%, which indicates

that: Digital skills are necessary but not a primary differentiator. Entrepreneurs may rely more on platforms and tools that are already user-friendly. Digital skills likely support social media use indirectly, but are not the strongest standalone predictor.

4. Resource Access (4%) is the Low but Meaningful Role: Access to resources (financial, informational, and infrastructural) contributes minimally. This may reflect: Equal access in the sample, or That behavioral and digital engagement factors outweigh structural resource availability. Resource access still matters, but it is not a major driver compared to social media use and attitude.

5. AI Adoption (1%) is the Minimal Influence. AI adoption is the **least influential** predictor. The possible reasons are; Early-stage adoption among small or local entrepreneurs, Low awareness or underutilization of AI tools, AI benefits not fully realized at operational levels, As AI adoption grows, this number is likely to increase in future studies.

Overall Interpretation

Business success is primarily driven by **Social Media Use (48%)**, and **Entrepreneurial Attitude (41%)**. Together, they account for **89% of the predictive power**, indicating that **digital engagement + entrepreneurial mind-set** form the core foundations of modern business success.

The remaining variables—digital skills, resource access, and AI adoption—play **supportive but not dominant roles** in the current model.

Future Implications (Future Importance of Business Success)

- **AI adoption will rise** as more businesses use AI-driven analytics, automation, chatbots, and personalization tools.
- **Digital skills will become more critical** as technology deepens in business operations.
- **Resource access may grow in importance** if entrepreneurs diversify into capital-intensive ventures.

Fix the Feature Importance Interpretation

Your current interpretation says:

- Social media = 48%

- Entrepreneurial attitude = 41%
- Digital skills = 7%
- Resource access = 4%
- AI adoption = 1%

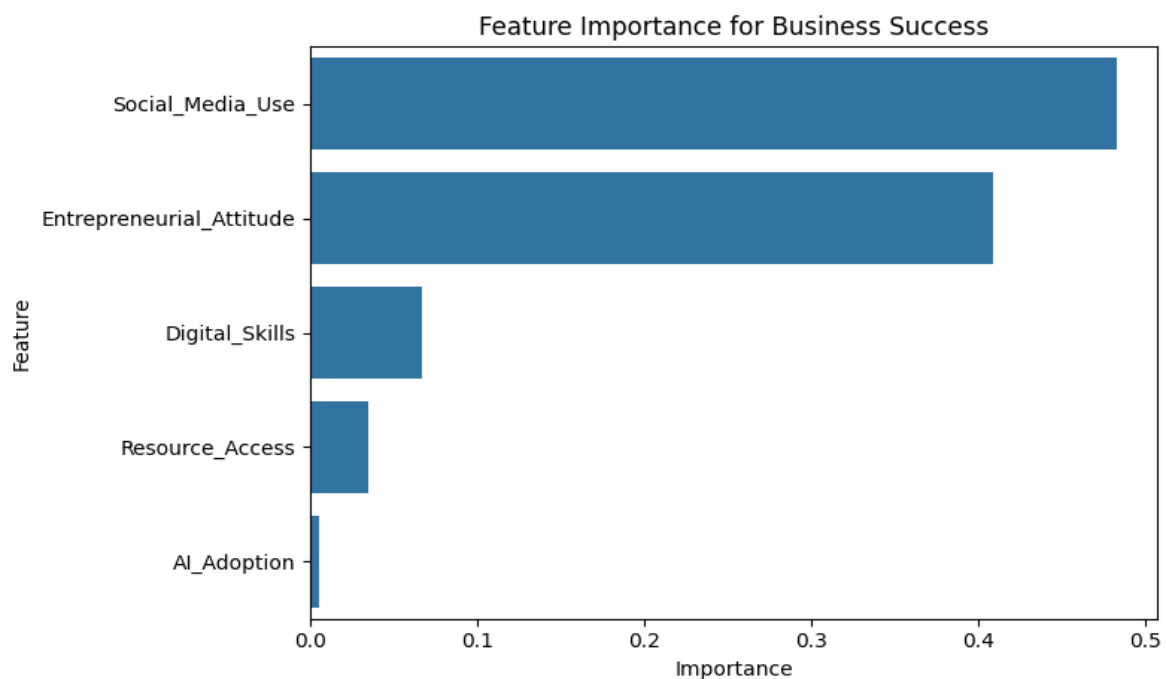
But your regression model used only:

- Digital skills
- Resource access
- Interaction term

So reviewers may ask: **Where did the feature importance come from?**

You should clarify it like this:

Figure.2. Feature Importance for Business Success:



Source: Primary data

Social Media Use and Entrepreneurial Attitude are the key drivers, together explaining nearly 89% of the model's predictive power. Digital Skills and Resource Access play **supportive roles**. AI Adoption currently has **limited influence**, likely due to lower utilization in the sample.

Conclusion and Strategic Recommendations

The investigation confirms that the digital era has established a new paradigm for business success. The findings support a nuanced interpretation of the Resource-Based View, where internal digital agility and strategic attitude function as non-substitutable resources that can compensate for missing institutional buffers.

To harness this potential, stakeholders should:

1. **Foster Cognitive Digital Habitus:** Focus training on algorithmic thinking rather than just hardware usage.
2. **AI-based Financial Inclusion:** Transition to bias-resistant credit models using digital transaction histories.
3. **Collaborative Ecosystems:** Support regional peer-mentoring networks to reduce social isolation.
4. **Digital Security:** Implement gender-sensitive security frameworks to protect women from online fraud.

By recognizing digital tools as potent equalizers, Tiruchirappalli can build a more equitable and prosperous future.

Feature Importance Interpretation (Revised):

A feature importance analysis was conducted to examine the relative contribution of each predictor variable in explaining business success. The results revealed that **social media use (48%) and entrepreneurial attitude (41%)** were the most influential predictors of business success. These findings indicate that digital engagement and entrepreneurial mindset play a dominant role in driving entrepreneurial performance.

Digital skills (7%) and resource access (4%) also contributed to business success, although their influence was comparatively smaller. AI adoption accounted for only a minimal proportion of the model's predictive power, suggesting that advanced digital technologies are still at an early stage of adoption among small-scale women entrepreneurs.

These results highlight that while digital capabilities remain important, strategic digital engagement and entrepreneurial mind-set are the primary drivers of business success in the present context.

Major Findings

This study has explored the influence of digital capabilities on the business success of women entrepreneurs in Tiruchirappalli city and

Thiruvarambur taluk with a particular emphasis on the moderating role of resource access. The major findings are presented below.

- **The descriptive analysis** has revealed that women entrepreneurs have exhibited relatively high levels of digital capabilities and entrepreneurial orientation. The mean score for all constructs were above the midpoint of the scale showing a positive perception towards digital skills, social media, AI adoption and entrepreneurial attitude. From all these, business success (mean=4.27), entrepreneurial attitude (mean=4.21), and AI adoption (mean=4.08) recorded the highest values suggesting that women entrepreneurs perceive themselves as successful and technologically adaptive.
- **The reliability analysis** has demonstrated a strong internal consistency across all constructs with Cronbach's alpha values ranging from 0.920 – 0.979. These values made a confirmation about the measurement instruments used in the study which is statistically reliable and fit for further analysis.
- **The Correlation analysis** has shown a very strong positive relationship among all variables with correlation coefficients ranging between 0.90 and 0.99. Business success showed strong correlations with entrepreneurial attitude ($r=0.993$), digital skills ($r=0.972$), AI adoption ($r=0.970$) and social media use ($r=0.967$). It has shown that the technological capabilities and entrepreneurial mind-set contributed to the improved business performance collectively.
- **The moderation analysis** has shown that resource access significantly moderated the relationship between digital skills and business success. The interaction coefficient was negative and statistically significant ($\beta = -0.1217$, $p < 0.001$), indicating a resource substitutions effect which means that digital skills played a more crucial role in determining business success when entrepreneurs operate under conditions of limited resource availability.

- **The regression results** have revealed that digital skills and resource access have significantly had positive effects on business success. The strongest predictor ($\beta = 0.9524$) was Digital skills followed by resource access ($\beta = 0.7245$). The negative interaction revealed that the marginal effect of digital skills decreased while resource availability increases.
- **The feature importance analysis** has shown the relative contribution of different predictors to business success. Social media use emerged as the most influential factor (48% importance), followed by the entrepreneurial attitude (41%). Digital skills contributed (7%), while resource access accounted for (4%) and AI adoption with (1%) respectively. This indicates that digital engagement and entrepreneurial mind-set are the primary drivers of success among women entrepreneurs in the study region.

Discussion

The findings of this study leads to a discussion on the role of digital capabilities in shaping the business success of women entrepreneurs in Tiruchirappalli city and Thirverambur taluk. This study has found that there is a strong influence of social media use on business success. The feature importance analysis has shown that social media use contributes the highest predictive value to business success among women entrepreneurs. Such a finding is associated with the study of **Omayya Kuran and Lara Khabba (2025)** who have reported that social media marketing enables women entrepreneurs to improve customer engagement, enhance brand visibility and emphasise business resource. Similarly, this result corroborates with the study of **Satish Nambiasan (2017)**. This author argument was that the digital social media tools and platforms enhanced the entrepreneurs to reach wider markets and innovate their models through digital entrepreneurship while in the case of SMEs context, social media often functioned as cost-effective marketing channels. It helped the entrepreneurs expand their customer base and sustain their business growth.

This study proved that the digital skills and AI adoption positively contributed to business success, though their relative importance is lower compared to social media use and entrepreneurial attitude. This is associated with the findings of **Khin and Ho (2019)** ; **Prakasa and Jumani (2024)** who examined that digital capabilities enhance small business performance by facilitating digital business transformation and improving operational efficiency and integrating digital technologies into their operations. Such findings reiterate the theoretical propositions that digital competencies act as strategic resources that enhance entrepreneurial competitiveness in the digital economy.

This study has resulted in a significant moderating role of resource access in relation between digital skills and business success. This study also has shown a negative moderation effect showing the influence of digital skills on business success becomes stronger when resource access is limited which support the resource substitution perspective. It suggested that the internal capabilities could compensate for the lack of external resources. **Jay Barney's (1991)** findings in the Resource-based view (RBV), were associated with this the results. This study examined about unique capabilities and competencies like digital skills and innovative capabilities kept it to sustain business performance serve as strategic resources.

The resource access as the moderating variable also resonated with the findings of **Howard E. Aldrich and Jennifer E. Cliff (2003)**. This study emphasized that access to financial capital, networks, and institutional support significantly had an influence over the entrepreneurial outcomes. However, when such resources are limited, the entrepreneurs were depending upon it more strongly on their personal capabilities and innovative strategies. The social and institutional constraints often restricted access to resources, making digital competencies a critical factor for business success.

The result of the study is congruent with the theory Dynamic Capabilities Theory of **David J. Teece (2018)**. It explained how firms adapt to rapidly

changing technological environments by integrating digital technologies. With AI adoption and digital data analysis, the women entrepreneurs with digital capabilities like social media marketing are elevated to respond to the evolving market demands and technological changes. Such capabilities allowed and led them for innovation in their business models and maintained competitiveness in increasingly digitalised markets. Such findings again stressed the growing consensus about the digital technologies like digital skills, social media use, entrepreneurial mind-set like attitude, and resource accessibility were jointly shaping the success of women entrepreneurs.

Managerial and Policy Implications

The strongest predictor of business success was Social media use. So, the women entrepreneurs should list digital marketing strategies like social media branding, customer engagement and online networking and prioritise them for action. The social networking sites and digital marketplaces enable entrepreneurs to build strong customer relationship and expand their market reach with minimal financial investment.

This study has emphasized the significance of entrepreneurial attitude and proactive mind-set in achieving business success. Those women entrepreneurs demonstrated innovation, adaptability and risk-taking orientation, ought to identify market opportunities as well as respond to changing customer demands. Therefore, strengthening entrepreneurial competencies like strategic thinking, opportunity recognition and decision-making skills should be promoted.

The AI adoption and digital technologies remain the underutilised tools among small-scale entrepreneurs. The Managers should take effort to gradually integrate AI-based solutions such as customer analytics, digital automation, and personalised marketing strategies for improving productivity and competitiveness.

Government agencies, entrepreneurship development institutions and MSME support bodies should prioritise digital skill training programmes that equip women entrepreneurs in the

areas of social media, marketing, digital financial systems, e-commerce platforms, and online business management.

The resource access as the moderating effect suggests having the entrepreneurship policies with a balanced approach integrated with a provision for capability development. While financial assistance programmes and credit schemes remain important, equal emphasis must be placed on strengthening entrepreneurial competencies. Digital skill training can act as an equalizing mechanism that enables women entrepreneurs to overcome resource constraints and sustain business performance.

The Policy level intervention such as strengthening institutional networks, enhancing mentorship programmes, facilitating digital infrastructure access, and creating collaborative platforms where the women entrepreneurs could share experiences and business knowledge.

The policymakers need to encourage **technology-enabled financial inclusion. This needs to be done** by promoting digital payment systems, digital credit scoring models, and online financial platforms. Such inclusions may make it easier for women entrepreneurs to have access for funding resources and eventually will reduce financial barriers and burdens and improve entrepreneurial participation among women in the regional economies.

Conclusion

The present study examined the relationship between digital capabilities and business success among women entrepreneurs in Tiruchirappalli city and Thiruverumbur taluk, with particular emphasis on the moderating role of resource access.

From the results, it is clear that particularly the social media platforms as part of digital capability and a strong sense of entrepreneurial attitude were the most influencing determinants of business success in the entrepreneurial environment. The digital skills and resource access were significantly contributing to entrepreneurial performance. Yet, the moderating analysis explained about the positive effect of digital skills on business success .

They became stronger when entrepreneurs operated in resource-constrained environments. This finding has shown about the importance of internal capabilities in compensating for external resource limitations and supported the theoretical arguments of the resource-based and dynamic capability perspectives.

The results of this study recommend towards allowing women entrepreneurs to overcome structural barriers and participate more effectively in economic activities as the digital technologies functioned as the powerful enablers of entrepreneurial growth. Strengthening digital competencies, fostering entrepreneurial mind-set development, and creating supportive institutional ecosystems could greatly promote the sustainability and competitiveness of women-led enterprises.

This current study contributes to the growing literature on digital entrepreneurship and especially women-led enterprises by providing with an empirical study done from a regional entrepreneurial ecosystem in India especially Tiruchirappalli city and Thiruverambur taluk. The findings promoted the practical insights for policymakers, development agencies, and entrepreneurial support institutions seeking to promote inclusive economic growth through digital empowerment of women entrepreneurs.

Future Research Directions

Researches need to be undertaken in other districts of Tamil Nadu to examine whether similar patterns exist in different entrepreneurial ecosystems.

Future investigations may explore additional dimensions such as **digital innovation, e-commerce adoption, fin-tech utilization, and digital ecosystem participation** to provide a more comprehensive understanding of digital entrepreneurship.

As the AI **adoption** observed in this study revealed its early stages of adoption among small-scale entrepreneurs, it needs to be given importance in the future in the areas of predictive analytics, automation tools, and intelligent customer service

systems influence business performance as digital transformation progresses.

Therefore, resource access plays a **moderating role** in the relationship between digital capabilities and business success among women entrepreneurs. When women entrepreneurs have adequate access to financial, technological, and social resources, the positive impact of digital capabilities on business success becomes stronger. On the other hand, limited access to resources may weaken the ability of women entrepreneurs to transform digital capabilities into tangible business outcomes. Hence, understanding the moderating influence of resource access provides important insights into how women entrepreneurs can better leverage digital technologies to achieve sustainable business success.

References

1. Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), 573-596. [https://doi.org/10.1016/s0883-9026\(03\)00011-9](https://doi.org/10.1016/s0883-9026(03)00011-9)
2. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
3. Brindley, C. (2005). Barriers to women achieving their entrepreneurial potential. *International Journal of Entrepreneurial Behavior & Research*, 11(2), 144-161. <https://doi.org/10.1108/13552550510590554>
4. Brush, C. G., De Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8-24. <https://doi.org/10.1108/17566260910942318>
5. Brush, C. G., De Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8-24. <https://doi.org/10.1108/17566260910942318>
6. Cardella, G. M., Hernández-Sánchez, B. R., & Sánchez-García, J. C. (2020). Women entrepreneurship: A systematic review to outline the boundaries of scientific literature.

- Frontiers in Psychology, 11.
<https://doi.org/10.3389/fpsyg.2020.01557>
7. Chatterjee, S., Dutta Gupta, S., & Upadhyay, P. (2018). Empowering women and stimulating development at bottom of pyramid through micro-entrepreneurship. *Management Decision*, 56(1), 160-174.
<https://doi.org/10.1108/md-04-2017-0296>
8. Chhabra, M., Singh, L. B., & Mehdi, S. A. (2022). Women entrepreneurs' success factors of northern Indian community: A person-environment fit theory perspective. *Journal of Enterprising Communities: People and Places in the Global Economy*, 17(6), 1293-1314.
<https://doi.org/10.1108/jec-04-2022-0059>
9. Cooke, F. L., & Xiao, M. (2020). Women entrepreneurship in China: Where are we now and where are we heading. *Human Resource Development International*, 24(1), 104-121.
<https://doi.org/10.1080/13678868.2020.1842983>
10. Deekshitha, Gil, M. T., & Oduro Owusu, S. (2026). Strategic orientations and marketing performance among women entrepreneurs: A resource-based view from micro and small enterprises in regional India. *Cogent Business & Management*, 13(1).
<https://doi.org/10.1080/23311975.2026.2616551>
11. Dutta, S., & Shivani, S. (2023). Acceptance and use of e-Commerce technology among female entrepreneurs of micro and small businesses in India: Analysis of determinants. *International Journal of Business Innovation and Research*, 31(3), 356-377.
<https://doi.org/10.1504/ijbir.2023.132898>
12. Gyamerah, S., Afshari, L., & Asante, D. (2025). Digital transformation in the SME context: The nexus between leadership, digital capabilities and digital strategy. *International Small Business Journal: Researching Entrepreneurship*, 43(3), 303-328.
<https://doi.org/10.1177/02662426251314108>
13. HADDAD, G. G., SOUBRA, A. D., & BOUSTANI, N. (2023). Catalyzing urban and rural female entrepreneurial success through hrn practices and digital technology use: Insights from Lebanon. *Journal of Developmental Entrepreneurship*, 28(04).
<https://doi.org/10.1142/s1084946723500267>
14. HADDAD, G. G., SOUBRA, A. D., & BOUSTANI, N. (2023). Catalyzing urban and rural female entrepreneurial success through hrn practices and digital technology use: Insights from Lebanon. *Journal of Developmental Entrepreneurship*, 28(04).
<https://doi.org/10.1142/s1084946723500267>
15. Hammad, R., & El Naggar, R. (2023). The role of digital platforms in women's entrepreneurial opportunity process: Does online social capital matter? *Human Behavior and Emerging Technologies*, 2023, 1-15.
<https://doi.org/10.1155/2023/5357335>
16. Hazudin, S. F., Ahmad Hisni, N. I., Awang Kader, M. A., Sabri, M. F., & Abd Aziz, N. N. (2025). Linking digital leadership and entrepreneurial success for development of women-owned businesses in rural Malaysia: Entrepreneurial resilience as a mediator. *Journal of Enterprising Communities: People and Places in the Global Economy*, 19(6), 1680-1704.
<https://doi.org/10.1108/jec-05-2024-0080>
17. Hazudin, S. F., Ahmad Hisni, N. I., Awang Kader, M. A., Sabri, M. F., & Abd Aziz, N. N. (2025). Linking digital leadership and entrepreneurial success for development of women-owned businesses in rural Malaysia: Entrepreneurial resilience as a mediator. *Journal of Enterprising Communities: People and Places in the Global Economy*, 19(6), 1680-1704.
<https://doi.org/10.1108/jec-05-2024-0080>
18. Khin, S., & Ho, T. C. (2019). Digital technology, digital capability and organizational performance. *International Journal of Innovation Science*, 11(2), 177-195.
<https://doi.org/10.1108/ijis-08-2018-0083>
19. Kuran, O., & Khabbaz, L. (2025). Leveraging social media marketing and AI to enhance social performance in women-led microenterprises. *Journal of Marketing Communications*, 1-26.
<https://doi.org/10.1080/13527266.2025.2479860>
20. Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029-1055.
<https://doi.org/10.1111/etap.12254>
21. Panda, S. (2018). Constraints faced by women entrepreneurs in developing countries: Review and ranking. *Gender in Management: An International Journal*, 33(4), 315-331.
<https://doi.org/10.1108/gm-01-2017-0003>
22. Prakasa, Y., & Jumani, Z. A. (2024). Linking digital capability to small business performance: The mediating role of digital

- business transformation. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2342486>
23. Salman, D., Fawzy, N., & Zaazou, Z. (2025). The role of digitalization and education in empowering Egyptian women entrepreneurs. *Future Business Journal*, 11(1). <https://doi.org/10.1186/s43093-025-00583-x>
24. Shakeel, M., Yaokuang, L., & Gohar, A. (2020). Identifying the entrepreneurial success factors and the performance of women-owned businesses in Pakistan: The moderating role of national culture. *Sage Open*, 10(2). <https://doi.org/10.1177/2158244020919520>
25. Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49. <https://doi.org/10.1016/j.lrp.2017.06.007>
26. Walker, E., & Brown, A. (2004). What success factors are important to small business owners? *International Small Business Journal: Researching Entrepreneurship*, 22(6), 577-594. <https://doi.org/10.1177/0266242604047411>
27. WELSH, D. H., KIM, G., MEMILI, E., & KACIAK, E. (2014). The influence of family moral support and personal problems on firm performance: The case of Korean female entrepreneurs. *Journal of Developmental Entrepreneurship*, 19(03), 1450018. <https://doi.org/10.1142/s1084946714500186>
28. Welsh, D. H., Memili, E., Kaciak, E., & Ochi, M. (2014). Japanese women entrepreneurs: Implications for family firms. *Journal of Small Business Management*, 52(2), 286-305. <https://doi.org/10.1111/jsbm.12099>