

ASSESSMENT REPORT ON

**COMPREHENDING THE ROLE AND EXTENT OF ICT AND
BUSINESS SUPPORT IN EMPOWERING FEMALE ENTREPRENEURS
IN NEPAL FROM RESOURCE-BASED PERSPECTIVE**

**Advancing to Doctoral Research Stage
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Title: Comprehending the role and extent of ICT and business support in empowering female entrepreneurs in Nepal from resource-based perspective

Research objectives

General Objective: To investigate how ICT and business support resources empower female entrepreneurs in Nepal, using a Resource-Based Perspective.

Specific Objectives:

- To examine the extent and types of ICT adoption among female entrepreneurs in Nepal.
- To evaluate the availability and effectiveness of business support services, including training, mentoring, and financial assistance.
- To assess the impact of ICT and business support on business performance, competitiveness, and entrepreneurial skills.
- To identify key challenges and barriers faced by female entrepreneurs in leveraging ICT and business support resources.
- To propose strategies for enhancing resource-based approaches to support and empower female entrepreneurs.

Research Questions

- What types of ICT are used by female entrepreneurs in Nepal, and how widely are they adopted?
- How available and effective are business support services, including training, mentoring, and financial assistance, for female entrepreneurs?
- How do ICT and business support influence business performance, competitiveness, and entrepreneurial skills?
- What are the main challenges and barriers faced by female entrepreneurs in using ICT and business support resources?
- What strategies can strengthen resource-based approaches to support and empower female entrepreneurs?

1. Inciting Incident – Why the Research is Needed

1.1 Background of the study

Nepal's entrepreneurial sector has experienced rapid growth in recent years, with an increasing number of individuals exploring business opportunities across various industries (Basnet, 2024; Xheneti and Madden, 2025). This trend highlights a broader recognition that women's participation in the economy is crucial not only for household welfare but also for national development. In this context, Information and Communication Technology (ICT) has emerged as a vital tool for women entrepreneurs, enabling more efficient management of business operations, broader market access, and improved communication and decision-making processes (Bhowal, 2020). According to the Resource-Based View (RBV), ICT can be considered a strategic resource that, when combined with other organizational and societal supports, allows women to build distinctive capabilities and achieve sustainable competitive advantage (Kodama, 2021; Karim, Nahar, and Demirbag, 2022). Effective use of ICT can enhance product offerings, improve service quality, and strengthen overall business performance.

1.2 Problem statement

Despite the progress in female entrepreneurship, most women-led businesses in Nepal remain small or micro in scale. Their expansion is often constrained by persistent challenges such as limited access to financial resources and technology, low digital literacy, and insufficient institutional support (ILO, 2019; Adhikari, 2025). These obstacles hinder women from scaling their businesses, adopting innovative practices, and competing effectively in the market. Although entrepreneurial literature emphasizes qualities such as creativity, initiative, and risk-taking as drivers of business success (Stewart and Carayannis, 2013; Shukla et al., 2021), these traits alone may not enable women entrepreneurs in Nepal to overcome structural and technological barriers.

1.3 Research Gap

While female entrepreneurship is increasingly recognized in Nepal, research remains limited regarding the role of ICT and business support in empowering women entrepreneurs. Therefore, this study aims to fill this gap by examining how ICT and business support contribute to empowering women entrepreneurs in Nepal. By analysing these factors both as external enablers and as resources that can be internalized to build

strategic capabilities, the study seeks to provide deeper insights into how women can strengthen their business performance in Nepal's growing digital environment.

1.4 Significance of the Study

This study is important because it examines how Information and Communication Technology (ICT) and business support services contribute to the empowerment of female entrepreneurs in Nepal. Women entrepreneurs in Nepal often have limited access to key business resources such as finance, information, skills, and markets (UNDP, 2024). Understanding how ICT and business support help reduce these resource gaps is essential for promoting inclusive entrepreneurship.

From a resource-based perspective, ICT tools and business support services can be viewed as valuable resources that improve business capabilities and performance (Barney, 1991). Digital platforms, mobile technologies, and online networks allow women entrepreneurs to access market information, communicate with customers, and manage business operations more efficiently (World Bank, 2021). Similarly, business support services such as training, mentoring, and financial assistance strengthen entrepreneurial skills and confidence (OECD, 2025).

The findings of this study will be useful for policymakers, government agencies, NGOs, and development organizations to design effective ICT-based programs and business support initiatives that address the real needs of female entrepreneurs. This study also provides useful insights for future researchers exploring shifting paradigms related to women entrepreneurship, ICT adoption, and resource-based theory in developing countries like Nepal (Kuhn, 1962; McLeod, 2020).

2. KUHN'S PARADIGM – THE KUHN CYCLE IN FEMALE ENTREPRENEURSHIP IN NEPAL

2.1 Implications of the Paradigm Shift in Women's Entrepreneurship

- **Normal Science: The Traditional Entrepreneurial Approach in Nepal**

Traditionally, women entrepreneurs in Nepal relied on limited financial resources, basic training, face-to-face sales, and local markets. ICT usage was limited, and structured support systems such as mentoring or formal training were often unavailable (Basnet, 2024; Adhikari, 2025). Business success depended largely on personal effort and informal

networks rather than strategic planning or resource management (Xheneti and Madden, 2025).

- **Emergence of Anomalies: Limitations of the Traditional Model**

As ICT tools became more accessible, gaps emerged. Many women lacked digital skills, and conventional support mechanisms could not keep pace with growing market competition or the need for broader market access (Bhowal, 2020; Mullally et al., 2022). These limitations highlighted the inadequacy of traditional approaches for achieving empowerment and sustainable business growth.

- **Crisis Stage: Need for a New Approach**

Challenges such as inadequate digital literacy, limited market understanding, and insufficient business support caused a crisis for women entrepreneurs. Personal characteristics or traditional business procedures were no longer sufficient for increasing business performance or reaching empowering goals (World Bank, 2021; Shrestha, Ransom and Bhattarai, 2022).

- **Scientific Revolution: Emergence of a Resource-Based Model**

As a result, a new paradigm has developed, focusing the strategic use of ICT, business support services, and entrepreneurial skills. ICT and support resources are now seen as critical tools for women to develop skills, increase competitiveness, and gain social, economic, and decision-making empowerment (Karim, Nahar and Demirbag, 2022; Adam et al., 2022).

- **New Normal: ICT and Business Support as Strategic Resources**

Under this paradigm, ICT adoption, mentoring, training, and financial support are regarded as critical resources. Women entrepreneurs can now use these tools to broaden their market reach, increase efficiency, build business capacities, and attain empowerment goals (SAWDF and APCICT, 2025; UN APCICT, 2025).

- **Conclusion: Significance of the Paradigm Shift**

This shift shows how structural changes in resource availability, when combined with ICT and business support, may influence female entrepreneurship. The research fits into this

growing paradigm, emphasizing the importance of using Resource-Based View (RBV), Technology Acceptance Model (TAM), and Empowerment Theory to better understand empowerment outcomes in Nepal (Davis, 1989; Barney, 1991; Marlow, 2013).

2.2 Challenges in Implementing the New Paradigm

- Limited ICT literacy, particularly in rural areas (Mullally et al., 2022).
- Cultural and social barriers that restrict women's decision-making autonomy (Acharya and Pandey, 2018).
- Unequal access to financial resources and institutional support (Adhikari, 2025; Shahzad et al., 2025).

2.3 Relevance of Kuhn's Paradigm to the Research

Normal Science: Women primarily relied on traditional methods with little technology, focusing mainly on face-to-face sales and local markets (Basnet, 2024; Adhikari, 2025).

Emergence of Anomalies: Over time, inefficiencies in traditional business support and limited digital adoption became increasingly evident, resulting in low competitiveness and limited market access for women entrepreneurs. (Bhowal, 2020; Mullally et al., 2022).

Crisis Stage: These outdated practices cause gaps in empowerment and company performance, as women without ICT began losing customers, existing support programs proved insufficient and COVID-19 pandemic intensified dependence on digital platforms (Shrestha, Ransom, & Bhattarai, 2022).

Scientific Revolution: Integrating ICT, business support, and entrepreneurial capacities creates a new resource-based approach that focuses on ICT training, digital finance, social media marketing, the online payment system, and access to mobile banking (Karim, Nahar, and Demirbag, 2022; Adam et al., 2022; Adhikari, 2025).

New Normal: Women strategically employ ICT and support services to enhance their economic, social, and decision-making empowerment, establishing ICT resources, business support, and entrepreneurial capabilities as key resources within a transformed empowerment paradigm (SAWDF and APCICT, 2025; UN APCICT, 2025).

Implications for Research: Using Kuhn's framework, we can see how problems in the previous model led to a new understanding of effective support for female entrepreneurs, which supports the study's objectives and methodology (Kuhn, 1962; McLeod, 2020).

Note: Figure A1 in Appendix A presents a visual representation of the Kuhn cycle, integrated with the study's conceptual framework and hypotheses, for clarity and reference.

3. Critical Literature Review

3.1 Introduction

Women's entrepreneurship has emerged as an important driver of economic and social development in developing countries. Nepal, like many South Asian economies, has witnessed growing participation of women in micro and small enterprises, yet structural barriers continue to limit their entrepreneurial growth. Existing research highlights that women entrepreneurs require more than just access to markets; they need supportive resources such as digital technologies, financial services, mentoring, and capacity-building programmes. The Resource-Based View (RBV) provides a useful theoretical lens for examining how access to ICT and business support strengthens women's capabilities and contributes to their empowerment.

3.2 Theoretical Framework

The theoretical foundation of this study draws on the Resource-Based View (RBV), supported by Empowerment Theory and the Technology Acceptance Model (TAM). These theories explain how ICT resources and business support services contribute to female entrepreneurs' empowerment in Nepal.

Traditionally, female entrepreneurs in Nepal relied on limited finance, basic training, face-to-face sales and local markets, with minimal ICT use (Basnet, 2024; Adhikari, 2025). As digital technologies emerged, many women lacked ICT skills, and conventional support programs became less effective, leading to low competitiveness and limited market access (Bhowal, 2020; Mullally et al., 2022). The COVID-19 pandemic further exposed these limitations, as women without digital literacy lost customers, and outdated support mechanisms failed to meet emerging business challenges (World Bank, 2021; Shrestha, Ransom & Bhattarai, 2022). In response, new interventions including ICT training, online

marketing, digital finance, and mobile banking were introduced, enabling women to operate more efficiently and reach broader markets (SAWDF and APCICT, 2025; UN APCICT, 2025). Consequently, the research paradigm has shifted to view ICT, business support, and entrepreneurial capabilities as key strategic resources for empowerment, integrating RBV, Empowerment Theory, and TAM within a mixed-method design to examine how these resources enhance economic, social, and decision-making empowerment among female entrepreneurs in Nepal (Davis, 1989; Barney, 1991; Marlow, 2013; Adam et al., 2022; Shrestha et al., 2024).

3.2.1 Resource-Based View (RBV) Theory

The Resource-Based View (RBV) offers a useful foundation for understanding how ICT and business support contribute to the empowerment of female entrepreneurs in Nepal. RBV argues that organisations can achieve better performance and long-term advantage when they have access to resources that are valuable, rare, difficult to imitate, and not easily replaced (Barney, 1991). Although the theory was originally developed to explain the performance of larger firms, it is now widely used to study small and micro enterprises as well (Shepherd and Wiklund, 2005). In these settings, RBV helps explain how entrepreneurs use the resources they have or can access to grow and strengthen their businesses.

RBV also highlights that simply owning resources is not enough. What matters is the ability to combine these resources effectively and use them in changing environments (Barney, Ketchen and Wright, 2021). This point is especially important for female entrepreneurs in developing countries, who often face limited access to finance, technology, networks, skills, and market information. Studies show that women frequently rely on intangible resources such as knowledge, skills, confidence, and social connections to overcome these challenges and move their businesses forward (Adam et al., 2022). In this sense, ICT and business support can be seen as additional resource bundles that women can use to expand their capabilities.

In many developing countries, ICT resources have helped women reduce traditional barriers related to mobility, time, and access to markets enable them to communicate more easily, reach larger markets, and operate businesses more efficiently (Elia et al.,

2021). ICT skills also encourage creativity and help women adopt new digital business models that open opportunities beyond their local communities (Duong et al., 2024).

3.2.2 Empowerment Theory

Empowerment Theory explains how individuals gain greater control over their lives by improving their economic, social, and psychological conditions. Empowerment involves strengthening people's ability to make decisions, access opportunities, and act with confidence (Wilkinson, 1998; Perkins & Zimmerman, 1995; Zimmerman, 2000; Marlow, 2013). For women entrepreneurs, empowerment is both a process and an outcome- one that increases their capacity to manage resources, participate in economic activities, and influence their personal and professional environments.

Perkins and Zimmerman (1995) describe empowerment as a process that builds control, critical awareness, and participation, Wilkinson (1998) emphasizes increased influence, autonomy, and responsibility in work and personal contexts.

Zimmerman (2000) states empowerment operates at psychological, organisational, and community levels, boosting confidence, strengthen organisational involvement, and expand social and economic opportunities.

3.2.3 The Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1989), explains how people choose to adopt technology. It highlights Perceived Usefulness (PU), refers the belief that technology enhance performance, and Perceived Ease of Use (PEOU), refers the belief that it is effortless to use. TAM has been extensively applied in various fields, including entrepreneurship, to understand how business owners adopt ICT tools to enhance efficiency, decision-making, and overall business operations (Venkatesh & Davis, 2000).

3.3 Review From Previous Literature

3.3.1 ICT and Women Entrepreneurs

Information and Communication Technology (ICT) has become a vital tool for women entrepreneurs to improve business operations, market access, and efficiency. Although women in Kathmandu Valley show strong entrepreneurial motivation, systemic barriers such as limited market information, risk aversion, and social expectations continue to

restrict participation (Acharya and Pandey, 2018). ICT supports better decision-making by enabling access to information and faster communication (Bhowal, 2020). Women entrepreneurs use tools such as accounting software, communication platforms, and production management systems to enhance performance (Isa et al., 2021). Regional reports emphasise the importance of digital infrastructure, entrepreneurship programmes, and gender-sensitive policies (APCICT, 2020). In Nepal, mobile technology enables women to participate in training and manage businesses alongside household responsibilities (Mullally et al., 2022). Social media and digital payments further support marketing and customer interaction (Karim, Nahar and Demirbag, 2022; Duong et al., 2024). ICT thus enhances empowerment by improving access, networks, and decision-making (Fatima et al., 2025; Shrestha, Ransom and Bhattarai, 2022).

3.3.2 ICT as a Strategic Resource for Women Entrepreneurs

- **ICT and Digital Skills**

ICT is a transformative resource enhancing women's access to information, markets, and networks. Shukla et al. (2021) note that digital tools reduce barriers from mobility restrictions and limited market reach. Sreejith and Sreejith (2023) highlight that ICT skills, combined with cultural capital and self-efficacy, shape entrepreneurial intentions. Studies also show that ICT competencies enhance creativity and self-efficacy, boosting digital business engagement (Duong et al., 2024). Ahmed et al. (2025) demonstrate that digitalisation expands opportunities through flexible work and integrating business with household responsibilities.

- **ICT and Empowerment**

Sundbo (1996) and Khabbaz and Kuran (2024) note that empowerment is a dynamic process in which strategic use of resources such as ICT and training enables women to enhance autonomy, decision-making power, and socio-economic participation. Research focusing on the digital era shows that digital tools lower entry barriers and create more inclusive entrepreneurial ecosystems (Ughetto et al., 2020). Mousa et al. (2024) further found that digital entrepreneurship in Egypt enhanced women's autonomy and confidence by enabling them to operate independently and interact with wider business communities. Fatima et al. (2025) explain that ICT participation

improves women's access to business information, decision-making opportunities, and market visibility, thereby strengthening economic and social empowerment.

3.3.3 Business Support Systems and Women's Entrepreneurial Growth

- **Training, Skills Development and Capacity Building**

Alongside ICT, business support services such as training, mentoring, and financial assistance are essential for women entrepreneurs. Training programmes enhance managerial skills and business planning (Acharya and Pandey, 2018), while entrepreneurship education strengthens knowledge, confidence, and resilience (Rudhumbu et al., 2020). Such support also improves women's ability to use technology effectively (Mehta and Sinha, 2022). Combining ICT with mentoring and finance enables sustainable skill development (Khabbaz and Kuran, 2024).

- **Access to Finance and Financial Literacy**

Many Nepali women face challenges related to financial access due to collateral requirements, limited experience, and cultural norms restricting property ownership. Financial access, technical know-how, and financial literacy significantly promote women's entrepreneurial development and improve decision-making abilities (Andriamahery and Qamruzzaman, 2022; Tanggamani et al., 2024). Lladós-Masllorens and Ruiz-Dotras (2022) add that financial skills influence women's motivations and intentions to start businesses, showing that financial literacy is not only an operational need but also a psychological enabler.

In Nepal, Shrestha et al. (2024) and Shrestha, P. et al. (2024), Adhikari (2025) emphasized that business support programs increase women entrepreneurs' access to resources, improve business operations, and enhance competitiveness.

- **Mentoring, Networks, and Institutional Support**

Business mentoring and networking opportunities are crucial in overcoming socio-cultural barriers. Kogut and Mejri (2022) highlight that women in emerging markets experience turbulence and instability, but institutional support and mentorship help them adapt and remain competitive. Research by Khabbaz and Kuran (2024) shows that

rural female entrepreneurs benefit significantly from digital and organisational resources when supported by community networks.

For Nepal, Shahzad et al. (2025) reveal that female micro-entrepreneurs rely heavily on local networks and community support structures, which compensate for the absence of formal institutional support.

3.3.4 Challenges and Barriers

Despite the benefits of ICT and support services, women entrepreneurs face challenges such as limited ICT access, poor digital literacy, financial constraints, and social barriers (Shepherd and Wiklund, 2005; Kapinga, 2020; Basnet, 2024; Xheneti and Madden, 2025). Even when tools are available, their effective use is often constrained by inadequate (Kapinga, 2020; Mullally et al., 2022). From RBV perspective, entrepreneurial success depends on overcoming resource limitations related to skills, technology, and financial capital (Shepherd and Wiklund, 2005; Agrawal et al., 2025).

Research shows that ICT plays a major role in empowering women engaged in home-based businesses (Ibrahim et al., 2023), while digital and organisational resources help rural women participate more actively in entrepreneurship (Khabbaz and Kuran, 2024). Business support such as training, finance, and mentoring improves resource availability and business performance (Pashtoon, Mohamad and Hamid, 2024). When women receive training, mentoring, and financial support, their decision-making power and economic independence grow (Andriamahery & Qamruzzaman, 2022).

3.4 Hypothesis

Based on the research objectives, literature review, and conceptual framework, the study proposes the following hypotheses to examine the relationship between ICT adoption, business support, entrepreneurial capabilities, and women's empowerment among female entrepreneurs in Nepal. The hypotheses are derived from:

Evidence suggests the use of ICT enhances market access, decision-making, and company efficiency (Bhowal, 2020; Duong et al., 2024).

Results show that business support services, such as financial aid, mentoring, and training, improve abilities, confidence, and resource use (Adhikari, 2025; OECD, 2025).

Research demonstrates that the utilization of ICT and support resources to attain empowerment results is mediated by entrepreneurial qualities (Karim, Nahar & Demirbag, 2022; Marlow, 2013).

Based on these insights, the following hypotheses are proposed:

H1: ICT adoption has a positive effect on women's empowerment among female entrepreneurs in Nepal.

H2: Business support services (training, mentoring, financial assistance) have a positive effect on women's empowerment.

H3: Entrepreneurial capabilities (skills, knowledge, confidence) positively influence women's empowerment.

H4: Entrepreneurial capabilities mediate the relationship between ICT adoption/business support and women's empowerment.

3.5 Conceptual Framework

Figure below shows the major resources that female entrepreneurs may leverage, which include ICT resources, business support, and entrepreneurial capabilities. This framework directly influences the hypotheses (H1–H4) and mixed-methods study design.

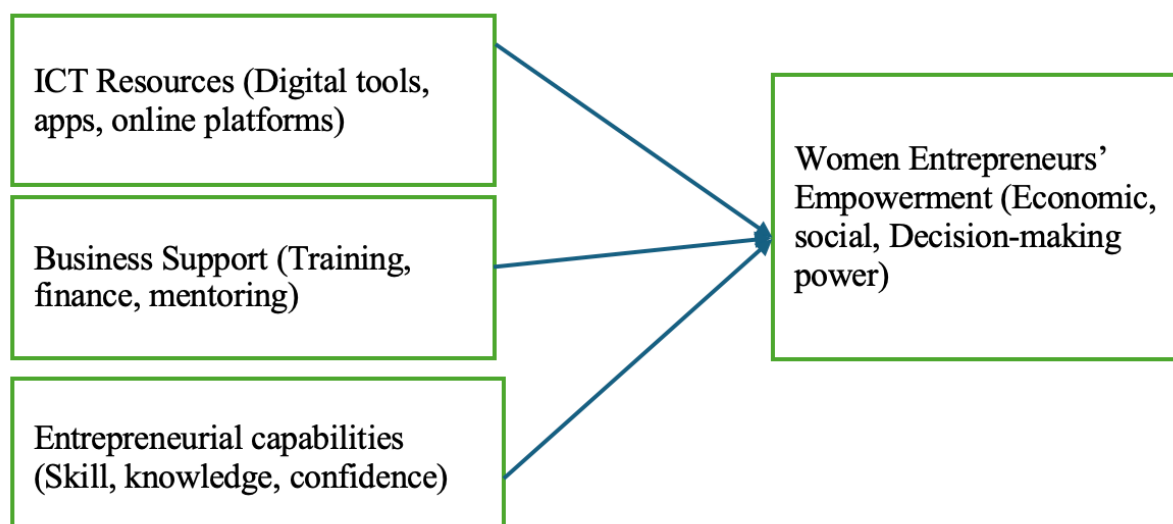


Figure 1: Conceptual Framework for Empowerment of Female Entrepreneurs in Nepal

- **Independent Variables**

ICT resources such as mobile phones, internet platforms, and digital tools help Nepali women manage businesses and access markets (SAWDF and APCICT, 2025; UN APCICT, 2025).

Business support—training, mentoring, and financial assistance—improves skills and confidence, despite barriers like limited credit and social norms (Adhikari, 2025; Ncell, 2023).

Entrepreneurial capabilities (skills, knowledge, confidence) enable women to use ICT and support effectively.

- **Dependent Variable**

Women's empowerment includes economic, social, and decision-making aspects, strengthened by ICT, support services, and capabilities (Dhaubhadel, 2022; Hillman, 2024).

4. Rising Action: Research Approach

This study uses a mixed-methods design, combining quantitative surveys and qualitative interviews to examine how ICT and business support influence the empowerment of female entrepreneurs in Nepal. The quantitative surveys collect data from women entrepreneurs on ICT adoption, access to business support, entrepreneurial capabilities, and empowerment outcomes. The qualitative interviews explore participants' experiences, challenges, and perceptions in greater depth.

The purpose of the pilot is to evaluate the interview and survey questions' cultural appropriateness, clarity, and reliability. Findings from the pilot will inform revisions before full data collection.

This approach was chosen because it captures both broad patterns through surveys and contextual insights through interviews. The selected participants reflect diverse entrepreneurial backgrounds, ensuring a comprehensive understanding of how ICT and support services enhance women's economic, social, and decision-making empowerment. This methodology is well-suited to address the research objectives and provide robust evidence on the study theme.

4.1 Theoretical Underpinnings of the Methodological Choice

The methodological choice for this study is grounded in pragmatism, which emphasizes selecting methods that best answer the research questions by combining quantitative and qualitative approaches (Creswell, 2014). This approach enables the study to measure patterns systematically while capturing the lived experiences of female entrepreneurs in Nepal.

The Resource-Based View (RBV) provides a theoretical lens for understanding how access to strategic resources such as ICT tools and business support services can create competitive advantage and improve entrepreneurial performance (Barney, 1991; Adam et al., 2022). RBV informs the quantitative survey design, focusing on measuring the availability and utilization of these resources and their impact on empowerment outcomes.

The Technology Acceptance Model (TAM) complements RBV by explaining how perceptions of ease of use and usefulness influence the adoption of ICT among women entrepreneurs, which is critical for translating technology into empowerment (Davis, 1989; Shukla et al., 2021).

Empowerment Theory guides the qualitative interviews, providing insight into how resource access and ICT adoption contribute to economic, social, and decision-making empowerment (Marlow, 2013; Zimmerman, 2000). By exploring participants' experiences, the study captures contextual and socio-cultural factors that influence empowerment.

The integration of RBV, TAM, and Empowerment Theory ensures validity by linking resource availability, technology adoption, and empowerment outcomes, while supporting reliability through systematic measurement of variables.

4.2 Research Design: Explanatory Sequential Mixed Methods

The study adopts an Explanatory Sequential Mixed Methods (ESMM) design, beginning with quantitative data collection followed by qualitative analysis to explain and contextualize the findings (Creswell & Plano Clark, 2018).

Phase 1–Quantitative: Surveys will be conducted with female entrepreneurs and NGO in Kavrepalanchowk to measure ICT adoption, access to business support, entrepreneurial capabilities, and empowerment outcomes. Statistical analysis will identify patterns and relationships among these variables.

Phase 2–Qualitative: Semi-structured interviews with a subset of survey participants will explore their experiences, challenges, and how ICT and support services contribute to economic, social, and decision-making empowerment.

This design combines the breadth of quantitative data with the depth of qualitative insights, ensuring validity and reliability of the research outcomes.

4.3 Population and Sampling Strategy

The target population of this study comprises female entrepreneurs and NGO in Kavrepalanchowk district, Nepal, who are engaged in micro and small enterprises. This includes women operating in sectors such as business and services, agriculture-based enterprises, home-based businesses, beauty parlours, and tailoring, who actively use or have access to ICT tools and business support services.

4.4 Sampling Technique and Sample Size

The study employs a convenience sampling technique, selecting participants who are readily accessible and willing to participate in the research. This approach is appropriate given the time constraints, geographical dispersion, and limited availability of formal databases of women entrepreneurs in the study area. Data will be collected using structured questionnaires, with an approximate sample size of 100–200 female entrepreneurs and one NGO which is sufficient to capture meaningful patterns and ensure reliability in the quantitative analysis. A pilot test will be undertaken with a small subgroup of 10-15 female entrepreneurs to assess the clarity, significance, and reliability of the questionnaire and interview guides, as well as to inform any required changes prior to full-scale data collecting.

4.5 Data Collection Instruments and Rationale

Data will be collected using a structured questionnaire. The instrument includes demographic questions (age, education, business type, years of operation) and Likert-scale items to measure ICT usage, business support access, entrepreneurial capabilities, and empowerment outcomes.

4.6 Data Analysis

Quantitative data from structured questionnaires will be analysed using descriptive statistics such as mean, standard deviation, frequency, and percentage to summarize demographics, ICT adoption, business support, entrepreneurial capabilities, and

empowerment outcomes. Qualitative data from semi-structured interviews will be thematically analysed to explore participants' experiences, challenges, and perceptions. This approach provides a clear understanding of trends and contextual insights without requiring advanced statistical tests at this stage.

4.7 Ethical Consideration and Data Protection

Participants will be fully informed about the purpose of the research, how their data will be used, and their right to withdraw at any time. The study will be conducted with transparency, avoiding any questions or procedures that may cause stress or harm.

4.8 Data Collection and Storage

Only necessary information will be collected. Data will be stored securely using encrypted files and locked cabinets to ensure confidentiality and privacy.

4.9 Ethical Approval

The research will be conducted after obtaining ethical approval from the University of Wales Trinity Saint David (UWTSD).

4.10 Alignment with Resource Objectives

The methodologies and study design are chosen to directly support the objectives of the research. Descriptive analysis reveals significant shifts among women entrepreneurs in Kavrepalanchowk, while the questionnaire collects information on ICT use, business support, competencies, and empowerment.

5. Crisis challenges and Methodological Risk

5.1 Stakeholder Time Constraints

Response rates and external validity may be impacted by the limited availability of certain female entrepreneurs because of their personal or professional responsibilities (Bryman, 2016). Offering flexible meeting dates and arranging surveys or interviews at participant convenience will help overcome this.

5.2 Participant Response and Family Influence

Internal validity may be impacted by female entrepreneurs' hesitation to give truthful answers or by family members' influence, posing a threat to internal validity (Bryman, 2016). To overcome, the study's goal, confidentiality, and voluntary involvement will all be made explicit, and surveys or interviews will take place in a private, comfortable environment.

5.3 Low Literacy or Limited Formal Education

Construct validity may be impacted if participants with poor reading or writing abilities have trouble understanding the questionnaire (Creswell & Plano Clark, 2018). Using straightforward language, offering clarifications where needed, and supporting participants during data collection will all help minimize this.

5.4 Cultural or Social Barriers

Internal validity may be impacted by social norms that restrict women from freely discussing business or financial issues (Bryman, 2016). To overcome this, the researcher will place a strong emphasis on privacy, foster trust, and ask delicate questions.

5.5 Misinterpretation of Questions

The validity of the construct may be impacted by different interpretations of questions resulting from differences in ICT experience or business knowledge (Creswell & Plano Clark, 2018). Pilot testing and the use of locally applicable examples will help minimize this potential risk.

5.6 Non-Response or Partial Response

Reliability may be impacted if some participants skip questions (Bryman, 2016). To reduce this, follow-ups will be carried out if needed, and the significance of answering every question will be clarified.

5.7 Data Security Risks

There are ethical risks when handling sensitive personal and business data. To address this, participant identities will be hidden, and data will be safely kept in locked cabinets and encrypted files (Creswell & Plano Clark, 2018).

5.8 Balancing Depth and Breadth

A key methodological challenge is combining wide coverage with in-depth comprehension. Quantitative data alone may ignore contextual and socio-cultural aspects, whereas qualitative data may restrict generalizability. To address this, the study used a mixed-methods approach, with surveys identifying broad patterns and interviews exploring lived experiences. This provides sufficient breadth without reducing depth, so improving both validity and explanatory power.

5.9 Paradigm Conflicts

This study projects a methodological difficulty due to the employment of both quantitative and qualitative methodologies. While quantitative approaches emphasize measurement and connections, qualitative methods capture context and lived experiences. Consistent with Kuhn's

theory that paradigm conflicts occur when single techniques are insufficient (Kuhn, 1962), a pragmatic mixed-methods design is used to integrate multiple views and increase the research's coherence.

5.10 Reliability and Validity Risk

The study focuses on female entrepreneurs in Kavrepalanchowk, Nepal. Language barriers and varied literacy levels may impact understanding of survey and interview questions, while demographic characteristics such as age, education, and company type may impact responses. Misinterpretation of questions, incomplete responses, and cultural biases are all potential threats to validity and reliability. To address these issues, pilot testing will modify instruments for clarity and cultural relevance, and data will undergo reliability and validity tests to reduce interpretation bias.

5.11 Anticipated Ethical Dilemmas

The survey may include sensitive personal and business information, which may cause discomfort or affect answers from family/community members. To mitigate this, participants will be given complete information about the study, anonymity will be maintained, they can withdraw at any moment, and all data will be securely preserved.

6. For Climax (Reflection on Preparation)

6.1 Introduction

The process of developing this research proposal has strengthened my understanding of how research objectives, methodological choices, and data collection strategies must be carefully aligned. Through a detailed review of the literature and the development of a conceptual framework, the focus on ICT, business support, and women's empowerment in Nepal became more clearly defined. This preparatory stage has ensured that the proposed study is systematic, coherent, and methodologically sound (Barney, 1991; Davis, 1989; Marlow, 2013).

6.2 Realising the Limits of a Positivist Approach

During the initial stages, the research focus was largely limited to ICT adoption among female entrepreneurs. However, the literature review revealed that ICT alone is insufficient to generate meaningful empowerment outcomes (Bhowal, 2020; Mullally et al., 2022). Instead, empowerment is more effectively achieved when ICT is combined with business support services such as training, mentoring, and financial assistance. This shift helped refine the

research objectives and strengthened the analytical depth of the study (Adhikari, 2025; OECD, 2025).

6.3 The Influence of Kuhn's Paradigm Theory

The preparation stage revealed that current methodologies to evaluating female entrepreneurship may be insufficient to adequately explain complex realities in Nepal, particularly in terms of empowering effects. Recognizing anomalies in traditional research methodologies, based on Kuhn's paradigm theory, helped justify the use of a mixed-methods design that combines quantitative surveys with qualitative interviews (Kuhn, 1962). This technique enables the study to incorporate pragmatic views, increasing the validity and depth of the findings.

6.4 Evidence of Preparation and Adaptation

The preparation phase also highlighted the importance of socio-cultural factors, including mobility restrictions, household responsibilities, and family influence, which significantly shape how women access and utilise resources (Acharya and Pandey, 2018; Shrestha, Ransom & Bhattarai, 2022). The preparation stage included a systematic review of the literature on ICT adoption, business support, and women's empowerment. This method assisted in identifying essential themes and research gaps, which informed the conceptual framework and strengthened the alignment of objectives, research questions, and hypotheses.

6.5 Integrating Multi-Modal Evidence into the Portfolio

Potential methodological challenges, such as low literacy levels and partial participant engagement, were identified early in the process. Recognising these risks contributed to the development of ethical and inclusive research strategies, enhancing the overall validity and reliability of the study.

6.6 Personal Reflections on Researcher Positionality

Developing this proposal resulted in a shift from a solely quantitative approach to ICT adoption to a broader, pragmatic mixed-methods perspective that acknowledges empowerment as a context-specific process. Engaging with theory showed the need of combining measurement with participants' actual experiences.

Integrating the Resource-Based View, Technology Acceptance Model, and Empowerment Theory influenced my analytical approach and made me more conscious of my position as a researcher, especially in terms of bias management and reflexivity. Kavrepalanchowk was

chosen because it represents a situation in which women's entrepreneurship is growing but is hampered by socio-cultural and technological difficulties, making it suited for our research.

7. For Denouement (Resolution and Planning)

7.1 Addressing Methodological and Contextual Challenges

The proposal development stage assisted in identifying and addressing potential methodological and theoretical issues prior to data collection. Issues concerning socio-cultural norms, ICT literacy, and participant engagement influenced the decision to use a mixed-methods research approach, which is expected to provide both breadth and depth in understanding women's empowerment.

7.2 Resolving Theoretical Integration

From the perspective of theory, the study suggests an integrated framework that brings together diverse views. The Resource-Based View (RBV) will be utilized to define ICT and business support as strategic resources that improve entrepreneurial capacities. The Technology Acceptance Model (TAM) will be used to examine female entrepreneurs' ICT adoption behaviour. Empowerment Theory will be used to evaluate empowerment outcomes such as economic independence, decision-making ability, and social involvement.

7.3 Establishing Logical Alignment in the Research Design

This intended integration provides a logical sequence within the proposed study: access to resources is predicted to boost entrepreneurial talents, which may lead to better empowerment results. By addressing any theoretical and methodological contradictions at the proposal stage, the study is meant to be useful, ethically sound, and relevant to both academic and policy contexts.

7.4 Readiness and Contribution of the Final Research Plan

The research plan investigates how ICT and business support empower female entrepreneurs in Nepal, with objectives and research questions clearly aligned to examine adoption, effectiveness, impact, challenges, and strategies for resource-based support. Guided by the RBV, TAM, and Empowerment Theory, examines how resource availability, ICT adoption, and entrepreneurial competencies affect empowerment results. It uses a mixed-method

approach with survey and interview of 100-200 women entrepreneurs and NGO in Kavrepalanchowk.

The research plan is designed for both academic and policy use. By addressing key issues and linking theory with method, it aims to provide empirical and theoretical insights into how resource-based approaches can empower female entrepreneurs in Nepal.

8. Next Steps / Future Planning

8.1 Immediate Next Steps in Research Implementation

Step 1: Ethics Approval

Obtain official ethical approval from the University of Wales Trinity Saint David (UWTSD) to verify that study procedures, participant consent, and data processing comply with ethical guidelines.

Step 2: Pilot Testing

The next stage of this research will be a small-scale pilot study to refine the survey and interview methods. The pilot will assist uncover confusing issues, cultural sensitivities, and other barriers to participation among female entrepreneurs in the Kavrepalanchowk district. The findings from this first phase will be utilized to modify the study design, ensuring that data collecting is both successful and ethical.

Step 3: Fieldwork Scheduling

To maximize response rates, plan interviews and surveys based on participants' availability, socio-cultural restrictions, and seasonal business patterns.

Step 4: Main Data Collection

Following the pilot research, full-scale data collecting will take place, focusing on female entrepreneurs and related non-governmental organizations (NGOs). The quantitative phase will evaluate ICT adoption, business support availability, and empowerment results, whilst the qualitative phase will delve further into experiences, problems, and institutional views. Continuous reflection and documentation during these stages will ensure methodological rigor and ethical compliance.

Step 5: Data Analysis

Analyse quantitative data using descriptive statistics and qualitative data using thematic analysis find patterns challenges, and insights regarding empowerment.

Step 6: Validation Workshops

Engage participants and non-governmental organizations (NGOs) to examine preliminary findings, confirm interpretations, and improve conclusions.

9. Final Thoughts

The preparation of this research proposal, including the planning of the pilot test, has highlighted the need of integrating ICT adoption and business assistance as complementary tools for women's empowerment. Reviewing the literature and developing the conceptual framework revealed that empowerment is multifaceted, impacted by technology, training, mentorship, and financial assistance.

The pilot test will also provide practical insights into how socio-cultural factors such as family influence, mobility restrictions, and digital literacy impact participation. Preparing for this step improved the alignment of study aims, methodology, and expected findings, while highlighting ethical issues and cultural relevance.

10. Conclusion

This portfolio follows the development of the research concept from recognizing a practical problem to creating an organized and theoretically informed research plan. Using a Resource-Based View, Technology Acceptance Model, and Empowerment Theory, the study presents a framework for investigating how female entrepreneurs in Nepal might use ICT and business assistance to improve company performance and empowerment results.

Including a pilot study assures that the research tools are reliable, culturally relevant, and useful. It seeks to advance understanding about women's entrepreneurship in underdeveloped economies while also making meaningful recommendations for NGOs, governments, and development practitioners creating ICT and business support initiatives.

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Appendix A

Figure A1- Integrated Visual Representation of the Research Framework on Female Entrepreneurs in Nepal

