

Psychological Readiness and Women's Empowerment in Digital Marketing Among Rural Women Entrepreneurs in Malaysia

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ABSTRACT

Digitalisation has expanded opportunities for women entrepreneurs to reach markets, build customer relationships, and participate in the digital economy; however, technology access alone does not ensure meaningful empowerment, particularly in rural settings. This conceptual study develops an integrated framework explaining women's empowerment in digital marketing through four antecedents: psychological readiness, digital knowledge, digital self-efficacy, and technology access. The study adopts a theory-building conceptual research design and uses a structured integrative synthesis of recent international and Malaysian literature on female digital entrepreneurship, rural digital inclusion, technology use, self-efficacy, and psychological empowerment. Psychological Empowerment Theory provides the primary explanatory lens, while the Unified Theory of Acceptance and Use of Technology is used as a complementary perspective for understanding the enabling conditions surrounding digital technology use. The synthesis identifies four theoretically distinct but interrelated antecedents and positions women's empowerment in digital marketing as a multidimensional outcome comprising meaning, competence, self-determination, and impact. The conceptual synthesis further yields four testable hypotheses and a proposed measurement structure for subsequent empirical validation. The study contributes theoretically by integrating psychological and technology-related explanations of empowerment and by distinguishing psychological readiness from digital self-efficacy. It contributes practically by suggesting that rural women's digital entrepreneurship programmes should combine digital knowledge, access facilitation, repeated practice, confidence-building, and mentoring rather than rely on one-off technical training. No primary data are analysed; therefore, the proposed relationships should be interpreted as theoretically derived propositions rather than demonstrated causal effects. Future research should validate the framework using survey or mixed-method designs across Malaysian rural communities and assess contextual factors such as training exposure, business experience, and digital infrastructure.

Keywords: psychological readiness; digital knowledge; digital self-efficacy; technology access; women's empowerment

INTRODUCTION

Digitalisation has become an important component of contemporary entrepreneurship because digital platforms enable small businesses to communicate with customers, access markets beyond geographical boundaries, coordinate business activities, and develop new forms of value creation. Recent scholarship on female digital entrepreneurship shows that the field is growing rapidly, but the literature remains fragmented and insufficiently connected across entrepreneurship, technology adoption, gender, and empowerment perspectives (Alhajri & Aloud, 2023). More recent work likewise demonstrates that digital technologies can expand opportunities for women entrepreneurs by supporting digital learning, marketing, resource acquisition, and

business transformation (Best et al., 2024; Guo et al., 2025; Salamzadeh et al., 2025).

In Malaysia, digitalisation is particularly relevant to women-owned micro and small businesses because social media, messaging applications, e-commerce platforms, and digital payment systems can lower some of the costs associated with market access. However, digital access alone does not guarantee meaningful business use. Evidence from Malaysian women entrepreneurs indicates that many women possess basic digital skills but do not always translate those skills into effective business applications, revealing a gap between digital familiarity and entrepreneurial use (Asia Foundation, 2024). Research focusing specifically on rural Malaysian women entrepreneurs similarly highlights the importance of digital knowledge and the need for tailored digital capability development (Hamid et al., 2024). More recent Malaysian evidence also indicates that digital leadership and resilience are relevant to the development of women-owned businesses in rural settings (Hazudin et al., 2025).

The contemporary literature therefore suggests that women's empowerment through digital marketing cannot be explained adequately by a single psychological factor. Digital knowledge determines whether entrepreneurs understand available tools and practices; technology access determines whether those tools can be reached and used consistently; digital self-efficacy reflects confidence in applying digital technologies; and psychological readiness captures willingness and mental preparedness to engage with technological change. These factors are conceptually distinct but mutually reinforcing. Recent empirical evidence supports the relevance of digital self-efficacy to digital transformation among entrepreneurs (Malodia et al., 2023), while research on Malaysian women entrepreneurs has identified digital innovativeness, entrepreneurial self-efficacy, and social-media-related factors as important elements of digital entrepreneurial adoption and empowerment (Mohd Mokhtar et al., 2024).

At the outcome level, women's empowerment should also be treated as a multidimensional construct rather than as a single behavioural or psychological characteristic. Psychological empowerment research continues to conceptualise empowerment in terms of meaning, competence, self-determination, and impact, and recent entrepreneurship studies continue to apply these dimensions when examining women entrepreneurs and entrepreneurial outcomes (Bhandari et al., 2024; Sugiyanto et al., 2024). Recent research further demonstrates that digital technologies can contribute to women's empowerment by improving access to markets, information, networks, learning opportunities, and business resources (Salman et al., 2025; Salamzadeh et al., 2025).

Problem Statement and Research Gap

Although digital entrepreneurship research has expanded, three limitations remain relevant to the Malaysian rural context. First, the literature is still fragmented across digital entrepreneurship, gender, technology adoption, and empowerment perspectives, making it difficult to explain how these dimensions operate together (Alhajri & Aloud, 2023; Machado et al., 2026). Second, empirical studies frequently examine digital adoption, skills, or business performance without treating empowerment as a multidimensional outcome. Third, rural women may face simultaneous capability, infrastructure, and contextual constraints, meaning that digital knowledge and access need to be considered alongside psychological capabilities. Recent international evidence reinforces this point: rural digital literacy has been associated with women's empowerment, while systematic evidence also highlights persistent barriers related to affordability, infrastructure, and socio-cultural conditions (Kumar et al., 2024; Fatima et al., 2025). Malaysian research likewise indicates that digital capabilities do not automatically translate into business outcomes (Asia Foundation, 2024; Hamid et al., 2024).

The present conceptual study addresses this gap by moving beyond a single independent-variable model. Instead of treating psychological readiness as the only explanatory factor, the proposed framework integrates four independent variables—psychological readiness, digital knowledge, digital self-efficacy, and technology access—and examines their proposed relationships with women's empowerment in digital marketing. This broader specification responds directly to the need for a theoretically coherent model that recognises both psychological and technology-related determinants of empowerment.

Research Objectives

RO1: To conceptualise the role of psychological readiness in influencing women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

RO2: To examine conceptually the role of digital knowledge in influencing women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

RO3: To examine conceptually the role of digital self-efficacy in influencing women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

RO4: To examine conceptually the role of technology access in influencing women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

Research Questions

RQ1: How does psychological readiness contribute to women's empowerment in digital marketing among rural women entrepreneurs in Malaysia?

RQ2: How does digital knowledge contribute to women's empowerment in digital marketing among rural women entrepreneurs in Malaysia?

RQ3: How does digital self-efficacy contribute to women's empowerment in digital marketing among rural women entrepreneurs in Malaysia?

RQ4: How does technology access contribute to women's empowerment in digital marketing among rural women entrepreneurs in Malaysia?

Significance of the Study

This conceptual study is significant because it responds to the continuing need to understand how digitalisation can produce substantive empowerment outcomes for women entrepreneurs rather than merely increase technology use. Recent literature identifies digitalisation as a potential mechanism for expanding women's entrepreneurial opportunities, but also emphasises that digital benefits are shaped by capability, access, confidence, and contextual conditions (Alhajri & Aloud, 2023; Best et al., 2024). By integrating psychological and technology-related antecedents, the proposed framework provides a more comprehensive explanation of why some rural women entrepreneurs may be better positioned than others to translate digital marketing opportunities into greater competence, autonomy, and perceived impact.

The study is also significant for Malaysia because the national digital economy agenda increasingly emphasises inclusive participation and women's digital capability development. Recent policy initiatives have specifically targeted women entrepreneurs with training in digital business strategies, online branding, financing, and market access (Ministry of Digital Malaysia, 2025). The proposed framework can therefore provide a theoretically informed structure for evaluating whether such initiatives address only technical skills or also strengthen the psychological conditions necessary for sustained digital engagement.

From a theoretical perspective, the study contributes by integrating Psychological Empowerment Theory with a complementary technology-use perspective. Rather than treating digitalisation as an end in itself, the framework explains how psychological readiness, digital knowledge, digital self-efficacy, and technology access may create conditions under which digital marketing becomes empowering. The model also makes a conceptual distinction between psychological readiness and digital self-efficacy: readiness concerns willingness and preparedness to engage with change, whereas self-efficacy concerns perceived capability to perform digital tasks. From a practical perspective, the framework suggests that entrepreneurship programmes should integrate digital knowledge, access facilitation, repeated practice, confidence-building, mentoring, and opportunities to apply digital tools to real business problems.

METHODOLOGY

Conceptual Research Design

This article adopts a theory-building conceptual research design rather than an empirical survey, case study, or experimental design. The choice is deliberate because the purpose of the study is to integrate fragmented evidence on psychological readiness, digital capability, technology access, and women's empowerment into a coherent explanatory framework for rural women entrepreneurs. Accordingly, the manuscript does not claim primary-data collection, statistical significance, programme effectiveness, or causal effects. Instead, it develops theoretically grounded relationships that can be tested in subsequent empirical research.

Structured Integrative Literature Synthesis

The literature synthesis prioritised recent peer-reviewed research published mainly from 2023 to 2026, while retaining foundational theoretical sources where they are necessary to define constructs or explain proposed relationships. The evidence was organised around five analytical streams: female digital entrepreneurship and digital marketing; rural women's digital inclusion and empowerment; psychological readiness and self-efficacy; digital knowledge and technology access; and psychological empowerment and technology-use theories. International evidence was deliberately incorporated alongside Malaysian studies to reduce geographic concentration and identify findings that are transferable, comparable, or contextually distinct.

Framework Development Procedure

The conceptual development followed four linked steps. First, the central problem was scoped around the gap between digital access or basic digital literacy and substantive empowerment outcomes among rural women entrepreneurs. Second, the literature was compared to identify recurring antecedents, definitions, mechanisms, and outcome dimensions. Third, the constructs were mapped onto Psychological Empowerment Theory as the primary explanatory lens, with the Unified Theory of Acceptance and Use of Technology (UTAUT) used as a complementary perspective for technology-use enabling conditions. Fourth, the resulting construct relationships were translated into four hypotheses and a proposed measurement structure for future empirical testing. This process ensures that each proposed relationship is traceable to a defined construct, a theoretical mechanism, and supporting literature.

Scope and Analytical Boundaries

The study is conceptual and therefore does not report a sample, questionnaire administration, response rate, statistical model, or empirical outcome assessment. The SheRises Programme in Tanjung Karang, Selangor is retained only as a potential future empirical setting, not as evidence that the proposed framework has already been validated. This distinction prevents conceptual propositions from being overstated as demonstrated outcomes.

LITERATURE REVIEW

Women's Digital Entrepreneurship and Digital Marketing

Female digital entrepreneurship refers broadly to entrepreneurial activity in which women use digital technologies, platforms, and infrastructures to create, deliver, market, or scale value. A recent structured literature review concluded that the field remains fragmented and that stronger theoretical connections are required to explain the interaction between digital entrepreneurship and women's entrepreneurship (Alhajri & Aloud, 2023). More recent research demonstrates that digital technologies can facilitate female entrepreneurship through learning, marketing, product digitisation, and resource acquisition, while also creating new forms of entrepreneurial capability (Guo et al., 2025).

For rural women entrepreneurs, digital marketing is particularly relevant because social media and online platforms can reduce geographical constraints and facilitate direct interaction with customers. However, the ability to search for information or maintain social media accounts does not necessarily mean that digital tools

are effectively integrated into business processes. Malaysian evidence indicates a persistent gap between basic digital literacy and the strategic use of digital tools for business growth (Asia Foundation, 2024; Hamid et al., 2024). Accordingly, digital marketing empowerment should be examined through both capability and psychological mechanisms.

Recent International and Malaysian Evidence

Recent international evidence strengthens the conceptual basis of the proposed framework. Kumar et al. (2024), using data from 250 rural participants in India, reported a positive relationship between digital literacy and women's empowerment, demonstrating that digital capability can be connected to empowerment outcomes rather than technology use alone. Fatima et al. (2025), in a systematic review of 79 influential studies, similarly identified economic empowerment, knowledge acquisition, and social inclusion as recurring themes in research on ICTs and women's empowerment. These findings support the present study's decision to treat digital knowledge and technology access as enabling conditions rather than interchangeable proxies for empowerment.

Evidence from entrepreneurship research also indicates that digitalisation operates through multiple individual and contextual mechanisms. Hazudin et al. (2025) found, among 209 rural women entrepreneurs in Malaysia, that digital leadership and entrepreneurial resilience were relevant to entrepreneurial success. In Brazil, Matumoto and Malaquias (2026) showed that social media use can generate online social capital and business performance, with social competence shaping these relationships. At the field level, Machado et al. (2026) identified digitalisation, digital technologies, and empowerment as major themes in a bibliometric analysis of 191 studies on female entrepreneurship. Taken together, these studies support a framework that combines psychological capability, digital knowledge, technology access, and empowerment rather than relying on a single explanatory factor.

Psychological Readiness

Psychological readiness is conceptualised in this study as the entrepreneur's willingness, confidence, motivation, and mental preparedness to engage with digital change and persist when technology is uncertain or difficult. Recent entrepreneurship research has developed and validated multidimensional approaches to entrepreneurship psychological readiness, highlighting willingness to learn, personal growth, adversity-related capability, commitment, and supportive relationships as relevant components (Farradinna et al., 2023).

In a digital entrepreneurship context, psychological readiness is therefore not equivalent to digital skill; rather, it reflects the internal capacity to approach, learn, experiment with, and persist in the use of digital technologies.

The relevance of psychological readiness is reinforced by evidence that digital self-efficacy influences the digital transformation journey of SMEs (Malodia et al., 2023). For rural women entrepreneurs, psychological readiness may enable them to convert available digital opportunities into action by reducing hesitation and encouraging continuous learning. It is therefore proposed as a direct antecedent of women's empowerment in digital marketing.

Digital Knowledge

Digital knowledge refers to an entrepreneur's understanding of digital tools, platforms, online communication practices, e-commerce processes, digital marketing techniques, and the appropriate use of digital information for business purposes. Digital knowledge is distinct from access because an entrepreneur may possess a smartphone or internet connection without understanding how to use those resources strategically. Recent research among rural women entrepreneurs in Malaysia reports that many participants have basic internet knowledge but require further support to strengthen the use of digital tools for business activities (Hamid et al., 2024).

Contemporary evidence also supports the broader relationship between digital knowledge and women's participation in entrepreneurship. A 2026 study of women in Indonesian MSMEs found that digital knowledge

and access to information technology were positively related to women's entrepreneurial participation, reinforcing the importance of knowledge as a capability that enables women to convert digital resources into economic activity (Cahyaningsih et al., 2026). Accordingly, higher digital knowledge is expected to strengthen women's competence, autonomy, and perceived impact in digital marketing.

Digital Self-Efficacy

Digital self-efficacy refers to an individual's belief in their ability to use digital technologies effectively to accomplish relevant tasks. It is particularly important in entrepreneurship because digital technologies often require continuous experimentation, troubleshooting, learning, and adaptation. Malodia et al. (2023), in the *Journal of Business Research*, found that entrepreneurs' digital self-efficacy significantly influenced the digital transformation journey of SMEs. Research on women entrepreneurs in Malaysia also indicates that entrepreneurial self-efficacy is relevant to active participation in digital media and digital entrepreneurial adoption (Mohd Mokhtar et al., 2024).

Digital self-efficacy is theoretically relevant to empowerment because perceived competence is one of the central dimensions of psychological empowerment. When women entrepreneurs believe that they can successfully use digital tools, they may be more willing to make independent decisions, experiment with digital marketing practices, and perceive greater control over business activities. Thus, digital self-efficacy is proposed as a positive antecedent of women's empowerment in digital marketing.

Technology Access

Technology access encompasses the availability, affordability, reliability, and usability of digital devices, internet connectivity, digital platforms, and other technological resources required for business activities. Access is an essential condition for digital participation because knowledge and confidence cannot be translated into sustained digital practice when entrepreneurs lack appropriate infrastructure or affordable connectivity. Recent research on women entrepreneurs identifies access to digital technologies as an important element in overcoming structural barriers and enabling market and resource access (Salamzadeh et al., 2025).

In the Malaysian rural context, access remains relevant because digital skills may not automatically translate into business use. Evidence from Malaysian women entrepreneurs indicates that the gap is not only about whether digital tools are available, but also whether entrepreneurs can apply them effectively for business growth (Asia Foundation, 2024). Therefore, technology access is proposed as a direct antecedent of women's empowerment in digital marketing.

Women's Empowerment in Digital Marketing

Women's empowerment in digital marketing is conceptualised in this study as the extent to which women entrepreneurs experience greater meaning, competence, self-determination, and impact through their engagement with digital marketing activities. This definition prevents empowerment from being reduced to income or technology adoption alone. Recent research on women entrepreneurs continues to demonstrate that psychological empowerment is multidimensional and relevant to entrepreneurial outcomes (Bhandari et al., 2024; Sugiyanto et al., 2024).

Digital marketing can potentially enhance empowerment by giving women greater control over customer relationships, market communication, business visibility, and revenue-generating activities. Recent evidence indicates that social media participation can contribute to psychological empowerment among female entrepreneurs (Chakraborty & Biswal, 2023), while research in emerging markets shows that digital technologies can help women overcome structural barriers and gain access to markets and resources (Salamzadeh et al., 2025). The proposed study therefore treats empowerment as the central outcome produced by the interaction of psychological and technology-related antecedents.

THEORETICAL FOUNDATION

Psychological Empowerment Theory provides the primary theoretical foundation for the proposed framework.

The theory conceptualises empowerment as an intrinsic motivational state expressed through four cognitions: meaning, competence, self-determination, and impact. These dimensions are appropriate for the present study because digital marketing can affect not only economic activity but also how women perceive their capability, autonomy, purpose, and influence within their businesses. Contemporary entrepreneurship research continues to apply psychological empowerment to women's entrepreneurial outcomes (Bhandari et al., 2024; Sugiyanto et al., 2024), while evidence on social media participation further supports its relevance to digital entrepreneurship (Chakraborty & Biswal, 2023).

The framework is strengthened by treating the Unified Theory of Acceptance and Use of Technology (UTAUT) as a complementary technology-use perspective rather than as a second competing outcome theory. UTAUT highlights the role of facilitating conditions and other technology-use determinants in shaping technology acceptance and use (Venkatesh et al., 2012). Subsequent reviews demonstrate the continuing usefulness of UTAUT-related models across technology contexts (Dewi et al., 2023). In the present framework, UTAUT helps explain why technology access and enabling conditions matter, whereas Psychological Empowerment Theory explains why successful engagement with digital marketing may translate into meaning, competence, self-determination, and impact. The theories therefore serve distinct but complementary functions: one addresses the conditions surrounding technology use, and the other explains the empowerment outcome.

Conceptual Synthesis and Framework Development

The literature synthesis indicates that the four antecedents operate at different analytical levels. Psychological readiness captures an internal orientation towards digital change; digital knowledge captures the cognitive resources needed to understand and apply digital tools; digital self-efficacy captures perceived capability to perform digital tasks; and technology access captures the structural conditions that make sustained digital participation possible. Keeping these constructs separate reduces conceptual overlap and provides a clearer basis for empirical testing. The framework therefore integrates individual psychological mechanisms with knowledge and structural enabling conditions, while positioning empowerment as the substantive outcome.

PROPOSED CONCEPTUAL FRAMEWORK

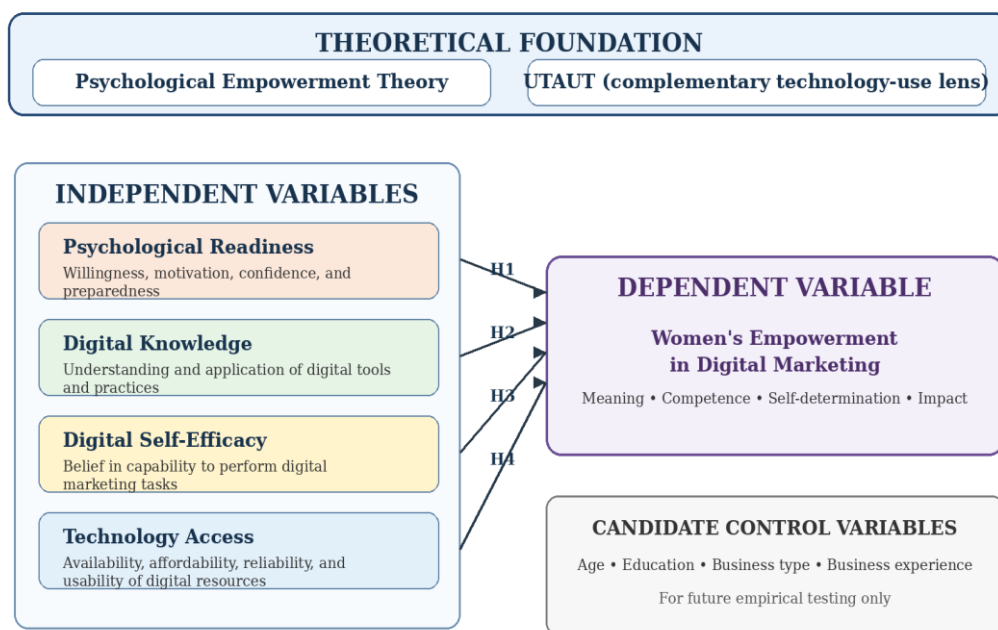
Drawing on the literature reviewed and the theoretical perspectives, the proposed conceptual framework positions psychological readiness, digital knowledge, digital self-efficacy, and technology access as four independent variables and women's empowerment in digital marketing as the dependent variable. The framework is designed to explain why access to digital tools may produce different empowerment experiences across rural women entrepreneurs. It therefore distinguishes internal psychological preparedness and perceived capability from knowledge and structural access.

The dependent variable, women's empowerment in digital marketing, is conceptualised as a multidimensional outcome comprising meaning, competence, self-determination, and impact. This definition deliberately avoids equating empowerment with income, technology adoption, or social-media activity alone. Instead, empowerment refers to the extent to which digital marketing engagement strengthens women's perceived capability, autonomy, meaningful entrepreneurial participation, and influence over business activities.

The framework proposes positive relationships between each antecedent and women's empowerment in digital marketing. Psychological readiness is expected to encourage willingness to experiment and persist with digital change. Digital knowledge provides the cognitive basis for understanding and applying digital marketing practices. Digital self-efficacy is expected to strengthen perceived competence and confidence in performing digital tasks. Technology access provides the structural conditions required for sustained participation. Age, education level, business type, and business experience are retained as candidate control variables for future empirical testing because they may influence digital engagement and empowerment independently of the four focal antecedents.

Based on these arguments, the proposed conceptual framework specifies four hypothesised relationships. H1 proposes that psychological readiness has a positive relationship with women's empowerment in digital

marketing. H2 proposes that digital knowledge has a positive relationship with women's empowerment in digital marketing. H3 proposes that digital self-efficacy has a positive relationship with women's empowerment in digital marketing. Finally, H4 proposes that technology access has a positive relationship with women's empowerment in digital marketing. The proposed relationships are illustrated in Figure 1.



H1-H4 are theoretically proposed relationships; no empirical effects are claimed.

Figure 1. Proposed Conceptual Framework

Proposed Relationships and Hypotheses

H1: Psychological readiness is positively associated with women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

H2: Digital knowledge is positively associated with women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

H3: Digital self-efficacy is positively associated with women's empowerment in digital marketing among rural women entrepreneurs in Malaysia.

H4: Technology access is positively associated with women's empowerment in digital marketing among rural women entrepreneurs in Malaysia

Empirical Validation Plan

The present article does not report primary-data collection or statistical testing. To facilitate direct empirical validation, future studies can adopt a cross-sectional or mixed-method design among rural women entrepreneurs participating in digital entrepreneurship programmes. A structured questionnaire may use validated multi-item measures for psychological readiness, digital knowledge, digital self-efficacy, technology access, and the four dimensions of women's empowerment. A five-point Likert scale can support comparability across constructs. Data analysis may proceed through screening and descriptive statistics, reliability and validity assessment, correlation analysis, and multiple regression or structural equation modelling, subject to sample size and measurement properties. Where appropriate, age, education, business type, and business experience can be included as controls.

Importantly, these procedures are proposed for future testing and are not reported as having been conducted in this conceptual article. Accordingly, no claims are made regarding effect sizes, statistical significance, model

fit, programme effectiveness, or causal relationships.

Proposed Measurement Structure for Future Empirical Testing

Table 1 translates the conceptual constructs into candidate dimensions for future instrument development. The dimensions are proposed for empirical testing and should be assessed for reliability, construct validity, and contextual appropriateness before data collection.

Construct	Proposed dimensions / indicators	Recent conceptual basis
Psychological Readiness	Willingness to learn; motivation to adopt digital change; confidence in facing digital uncertainty; persistence in learning.	Farradinna et al., 2023
Digital Knowledge	Understanding of digital marketing tools; online customer engagement; e-commerce processes; digital content and platform knowledge.	Hamid et al., 2024; Cahyaningsih et al., 2026
Digital Self-Efficacy	Confidence in using digital tools; ability to solve digital problems; ability to learn new platforms; confidence in implementing digital marketing tasks.	Malodia et al., 2023; Mohd Mokhtar et al., 2024
Technology Access	Device availability; internet reliability; affordability; access to relevant digital platforms and services.	Asia Foundation, 2024; Salamzadeh et al., 2025
Women's Empowerment in Digital Marketing	Meaning; competence; self-determination; impact.	Bhandari et al., 2024; Sugiyanto et al., 2024

THEORETICAL AND PRACTICAL IMPLICATIONS

The proposed framework makes a theoretical contribution by integrating psychological and technology-related explanations of women's empowerment. Existing research shows that female digital entrepreneurship is a growing but theoretically fragmented field (Alhajri & Aloud, 2023; Machado et al., 2026). The present model responds by using Psychological Empowerment Theory as the primary outcome-oriented lens while drawing on UTAUT to explain technology-use enabling conditions. This combination clarifies how digital resources and individual capabilities may become empowering only when they are translated into meaningful entrepreneurial action.

The framework also contributes by separating psychological readiness from digital self-efficacy. Although related, readiness concerns willingness, motivation, and mental preparedness to engage with change, whereas self-efficacy concerns perceived capability to perform specific digital tasks. This distinction provides a clearer conceptual basis for future empirical testing. Practically, the model implies that rural women's digital entrepreneurship programmes should move beyond one-off technical training and combine knowledge development with repeated practice, mentoring, confidence-building, peer support, and access facilitation. Recent evidence on rural digital literacy and women's empowerment supports this broader capability-oriented approach (Kumar et al., 2024; Fatima et al., 2025).

LIMITATIONS AND FUTURE RESEARCH

The principal limitation is the conceptual nature of the study. Because no primary dataset is analysed, the proposed relationships cannot be interpreted as demonstrated effects, and the framework does not establish predictive power or causal direction. The literature base also includes studies from different countries and institutional contexts; therefore, contextual transferability to rural Malaysia should be tested rather than assumed. Future research should validate the proposed measurement structure using adequate samples of rural women entrepreneurs, examine measurement invariance across locations or business types where appropriate, and test whether training exposure, business experience, social support, and digital infrastructure condition the proposed relationships. Longitudinal or mixed-method designs would also help determine whether empowerment develops over time as women move from basic digital familiarity to sustained digital marketing

practice.

CONCLUSION

This conceptual study responds to the need for a more integrated explanation of women's empowerment in digital marketing among rural women entrepreneurs in Malaysia. It proposes four theoretically distinct antecedents—psychological readiness, digital knowledge, digital self-efficacy, and technology access—and conceptualises empowerment as a multidimensional outcome comprising meaning, competence, self-determination, and impact. The framework is grounded primarily in Psychological Empowerment Theory and complemented by a technology-use perspective.

The contribution of the study is therefore conceptual rather than empirical. The model provides a structured basis for future research by clarifying how psychological preparedness, knowledge, perceived capability, and enabling access may jointly shape women's empowerment through digital marketing. The proposed hypotheses and measurement structure should be tested using primary data before any claims about statistical relationships, programme effectiveness, or causal outcomes are made. This distinction strengthens the academic positioning of the manuscript and provides a transparent pathway from conceptual development to empirical validation.

Ethical Consideration

This article is conceptual and does not report primary data involving human participants, identifiable personal information, or experimental intervention. Consequently, no human-participant ethical approval was required for the work reported in this manuscript. Any future empirical study based on the proposed framework should obtain the relevant institutional ethical approval and informed consent before data collection.

Data Availability

No primary dataset was generated or analysed for this conceptual article. The manuscript is based on published literature and theoretical synthesis. Data availability requirements for any future empirical validation should be addressed in the resulting empirical article.

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