



Entrepreneurship as a pathway to economic empowerment for ethnic minority women in Vietnam



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ABSTRACT

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This study explores the relationship between entrepreneurship and the economic empowerment of ethnic minority women in Vietnam, aiming to identify the key factors driving their entrepreneurial success. Using Structural Equation Modeling (SEM), the study examines how cultural traditions, market dynamics, empowerment through entrepreneurship, support networks, and ethical business practices influence economic empowerment. Cultural traditions emerged as a significant driver of economic empowerment, while market dynamics had a less pronounced impact. Entrepreneurship functions as both a source of income and a vehicle for personal and social empowerment. Support networks and ethical business practices are crucial in enabling inclusive economic participation. A reinforcing loop was identified, wherein empowerment led to sustained entrepreneurial engagement. Entrepreneurship serves as a multidimensional tool for ethnic minority women, not only improving economic outcomes but also enhancing agency and inclusion. Culturally embedded approaches are essential for effective support and empowerment. Policy interventions must move beyond generic economic frameworks and instead incorporate cultural sensitivity and tailored support systems. Strengthening community-based networks and ethical entrepreneurial ecosystems can significantly improve the sustainability and inclusivity of women-led enterprises.

Contribution/ Originality: This study offers a novel contribution by applying Structural Equation Modeling to explore the multifaceted relationship between entrepreneurship and economic empowerment among ethnic minority women in Vietnam. It uniquely highlights the role of cultural traditions, support systems, and ethical practices, expanding the understanding of empowerment beyond economic outcomes.

1. INTRODUCTION

In an era characterized by accelerated globalization, technological transformation, and shifting socio-economic paradigms, entrepreneurship has increasingly been positioned as a critical mechanism for achieving inclusive development and gender equity. Among the most compelling applications of this paradigm is its role in empowering women from ethnic minority communities, who are often doubly marginalized due to both gender and ethnic identity [1]. In contexts such as Vietnam, where traditional norms intersect with contemporary development pressures, the lived experiences of ethnic minority women entrepreneurs offer valuable perspectives on both the constraints and opportunities within the entrepreneurship empowerment nexus.

The northwestern region of Vietnam presents a unique and complex context. Ethnic minority women in this region often operate within a “double bind,” navigating entrenched cultural traditions that define their expected roles within family and community, while also attempting to access markets and economic systems that systematically marginalize their contributions [2]. Despite these constraints, many have emerged as entrepreneurs who defy not only gendered expectations but also socio-economic hierarchies that have historically excluded them from meaningful participation in the formal economy [3]. Their ventures, often rooted in traditional crafts, agriculture, and local services, demonstrate both resilience and innovation, revealing pathways to economic autonomy, enhanced social status, and community leadership [4, 5].

While prior research has increasingly recognized the importance of women's entrepreneurship in development discourse, significant gaps remain. First, much of the existing literature tends to conceptualize women entrepreneurs through a generalized or homogeneous lens, without adequately addressing how ethnicity, culture, and regional disparities shape entrepreneurial behaviors and outcomes [6, 7]. Second, there is a dominant focus on economic metrics such as income or business size at the expense of more nuanced indicators of empowerment, including autonomy, self-perception, community influence, and cultural affirmation [8]. Third, methodological limitations prevail in this body of work, with relatively few studies employing rigorous quantitative techniques, such as Structural Equation Modeling (SEM), to empirically test multidimensional models of entrepreneurship and empowerment among ethnically diverse populations.

This study aims to address critical gaps by developing and empirically testing a comprehensive model that captures the relationship between entrepreneurship and the economic empowerment of ethnic minority women in Vietnam. Drawing on extensive field data collected from women across five ethnic minority groups in the Northwest region, this research examines the mediating and moderating roles of five key constructs: cultural traditions, market dynamics, entrepreneurship as empowerment, support systems and networks, and sustainable and ethical business practices. The application of SEM provides a robust framework for simultaneously testing direct and indirect effects among latent variables, thereby offering greater precision and theoretical clarity.

The central argument of this article is that entrepreneurship, when embedded in a supportive cultural and institutional ecosystem, functions not merely as a vehicle for income generation but as a transformative process through which ethnic minority women assert agency, redefine gender norms, and contribute to inclusive development. This research advances current scholarship in three significant ways. First, it integrates cultural embeddedness into the analysis of entrepreneurship, thereby providing a contextualized understanding of women's entrepreneurial motivations and constraints. Second, it proposes a multi-layered empowerment framework that moves beyond material indicators to encompass social and psychological dimensions of change. Third, it introduces the concept of empowerment as a cyclical and reinforcing process, wherein entrepreneurial success fosters greater self-confidence and economic participation, thus generating momentum for further innovation and leadership.

By centering the lived experiences of ethnic minority women and employing rigorous empirical methods, this study offers a nuanced perspective on how entrepreneurship intersects with identity, agency, and structural inequality. It provides critical insights for policymakers, development practitioners, and academic researchers seeking to design more inclusive, culturally responsive, and sustainability-oriented entrepreneurship programs. In doing so, it contributes to the global discourse on gender, development, and social transformation through entrepreneurship.

2. LITERATURE REVIEWS

2.1. *Economic Empowerment for Ethnic Minority Women*

The notion of economic empowerment for ethnic minority women is actively examined in current literature, focusing on a pragmatic strategy that aims to promote these women's financial independence and overall economic participation. The literature identifies relevant access to education, job training, and important resources (e.g., credit, technology, etc.) as foundational to economic empowerment [9]. Moreover, addressing systemic barriers, such as

discrimination and laws, is complex. Scholars recommend that these women's advocates promote policy recommendations and litigation to establish fair and equitable legal protections for economic autonomy and financial security.

Numerous works have emphasized the centrality of capacity building within this framework. Scholars describe the benefits of capacity building in terms of individuals' employability outcomes and their autonomy to make decisions regarding economic pursuits [10]. As Utete [11] remarked, not only does this multidimensional work assist individuals in their pursuits, but it ultimately leads to the overall development of the community and society.

In deploying these strategies, the specific socioeconomic challenges inherent to ethnic minority women's experiences are recognized and addressed. The literature suggests that increasing access to the tools and opportunities necessary for more active economic participation is important [12], including opportunities to access financial capital for women-owned businesses and policy interventions to promote equal economic participation in workplaces. The incorporation of these measures, along with ongoing evaluation and research, is considered a crucial step in creating an environment that harnesses the economic potential of ethnic minority women and recognizes their value in the economy.

2.2. *Entrepreneurship and Ethnic Minority Women's Economic Empowerment*

The subfield of women's economic empowerment has increasingly recognized entrepreneurship as a key enabler, especially for women from ethnic minority groups. Research studies have shown that engaging in entrepreneurship helps women overcome socioeconomic challenges and achieve financial independence. Owning a business is one way to consider a non-traditional work-life pathway that avoids obstacles encountered in the traditional work environment and proves to be a quicker, more direct, and self-reliant way to participate in the economy [13].

Furthermore, scholarly literature highlights the importance of skills development in entrepreneurship. Operating a business requires and enhances a range of skills, such as financial literacy, strategic thinking, and market research [14, 15]. While such skills facilitate individual and business growth, they also serve to enhance the fabric of the broader community.

The principle of generating wealth through entrepreneurship has gained traction in research literature, especially in studies by Wei and Duan [16] and Kiradoo [17]. The researchers argue that entrepreneurial success involves more than the profit of the individual entrepreneur. Instead, they propose that entrepreneurship creates, or has the potential to create, a ripple effect in the community where the entrepreneur operates. They emphasize that entrepreneurs may not only inspire and motivate others to start their own businesses but also serve as role models to the community, particularly in minority communities.

The influence of successful entrepreneurs from ethnic minority groups, particularly women, on policies and regulations has also been an area of academic inquiry. Smith and Lohrke [18] have investigated how these entrepreneurs can lobby for and generate changes to facilitate access for minority- and women-owned businesses.

Networking is considered a key component of success in entrepreneurial ventures. Rehman and Azam Roomi [19] have emphasized the importance of establishing business networks to receive assistance, facilitate resource exchange, and identify new market opportunities. Additionally, the flexibility associated with entrepreneurship is often highlighted as a significant benefit, especially for women balancing multiple roles. Dagoudo et al. [20] note, for instance, that the entrepreneurial process affords women more control over their professional lives and personal lives, which promotes empowerment and work-life balance.

2.3. *Factors Affecting Ethnic Minority Women's Entrepreneurship*

2.3.1. *Cultural Traditions*

When ethnic minority women engage in entrepreneurship, they seek to balance, navigate, and accommodate what is expected of them and of their ethnic communities based on their traditions, while also drawing from supportive

initiatives and networks [21]. In this case, these initiatives serve to address gaps in mainstream initiatives and provide an opportunity for ethnic minority women to seek resources and support, thus participating in a culturally responsive manner. Moreover, women associated with ethnic minorities may find avenues for empowerment through means such as social entrepreneurship, which may, in some instances, be more culturally acceptable than traditional business ventures. Ethnic minority women can benefit from their embedded cultural, social, and economic norms while utilizing professional norms of entrepreneurship. Creative churn includes this transitional space, where women social entrepreneurs are compelled to shift between their registered norms and the masculinities that still dominate in entrepreneurship. Through practical engagement, they are able to negotiate working within the space of ethnic traditions and the path of entrepreneurship, undertaking social ventures that address social problems [22].

2.3.2. Market Dynamics

Women from ethnic minorities face different opportunities and challenges compared to their male counterparts when entering male-dominated business environments. They encounter numerous barriers in accessing resources essential for market entry and business growth, including capital and networks [23, 24]. These barriers, in turn, are magnified by gendered and racial stereotypes that may impede women's ability to establish collaborative working relationships with their male peers and access established networks [25]. In overcoming barriers that ethnic minority women experience, they may participate in all-female networks or utilize virtual networking to meet and connect with others from diverse backgrounds, thereby overcoming spatial and social barriers. However, organizations need to work toward moving away from the current male-dominant culture and instead acknowledge and understand the cultural and religious differences of ethnic minority women, rather than expecting the women to conform to a hyper-male-dominant monoculture [26]. By recognizing and understanding the barriers and challenges they face in entrepreneurship, organizations can begin to transform the organizational environment to include ethnic minority women entrepreneurs.

2.3.3. Entrepreneurship as Empowerment

Entrepreneurial endeavors serve as a means of financial empowerment that allows women to attain financial autonomy, improve their social standing, and make effective contributions to their communities. Women's entrepreneurship is a pivotal bridge to combating gender inequality and provides economic empowerment for women [27]. Women entrepreneurs support economic growth and development, while their involvement in the labor force raises output [28]. Engaging in entrepreneurship enables women to secure financial empowerment while boosting their self-worth and this connection enhances their well-being [29]. Additionally, women entrepreneurs provide significant social value and offer solutions for women facing issues such as funding, access to infrastructure, and entrepreneurial training [30]. Through their businesses, women entrepreneurs provide employment, utilize sustainable practices and innovate [31]. Overall, entrepreneurial businesses provide women with opportunities to achieve economic autonomy, improve their social status, and positively impact their communities.

2.3.4. Support Systems and Networks

Community networks, mentorship programs, and government policies are invaluable support systems that contribute to the entrepreneurial pursuits of ethnic minority women and have targeted initiatives aimed at increasing women's involvement in business innovation that celebrates diversity and inclusion. These support systems create opportunities for practical training while considering international collaboration, knowledge exchange, and shared learning to support entrepreneurship [32]. Types of support institutions such as accelerators, incubators, coworking spaces, and networking groups can provide entrepreneurs with access to valuable resources, mentoring, and networking support throughout the venture creation and growth phases [33]. Governmental policies help support disabled entrepreneurs, promote social inclusion, and support self-sufficiency. Together, they assist with page breaks

in existing networks, capacity building, and training, and create a healthy ecosystem for ethnic minority women entrepreneurs [34].

2.3.5. Sustainable and Ethical Practices

The establishment of sustainable and ethical business practices is key in entrepreneurship among women from ethnic minorities because they link economic objectives with social and environmental responsibilities. In exploring social entrepreneurship, women from ethnic minorities, in particular, face unique opportunities and challenges as the concept combines a focus on business objectives within the context of social impact. Studies in the area suggest that social enterprise can be more culturally acceptable to women from ethnic minorities, ultimately providing opportunities for empowerment [35]. Sustainable and ethical entrepreneurial enterprises are shifting toward regenerating the environment and driving positive societal change, rather than merely minimizing negative social and environmental impacts. Such enterprises aim to integrate economic, social, and environmental objectives while being ethically motivated in their transactions [36]. For this reason, without an ethical approach to business, any business of any size should not hope to address sustainability [37]. The combination of sustainability, ethical practices, and entrepreneurial approaches provides women from ethnic minorities with opportunities to develop enterprises that contribute to economic success while addressing societal and environmental challenges [38].

Based on literature reviews, a positive and meaningful impact has been observed. The following research hypotheses are proposed:

Hypothesis 1 (H_1): Cultural traditions have a positive and meaningful impact on economic empowerment for ethnic minority women.

Hypothesis 2 (H_2): Market dynamics positively and significantly impact economic empowerment for ethnic minority women.

Hypothesis 3 (H_3): Entrepreneurship as empowerment has a positive and meaningful impact on economic empowerment for ethnic minority women.

Hypothesis 4 (H_4): Support systems and networks positively and significantly impact economic empowerment for ethnic minority women.

Hypothesis 5 (H_5): Sustainable and ethical practices positively and significantly impact economic empowerment for ethnic minority women.

Hypothesis 6 (H_6): Economic empowerment for ethnic minority women has a positive and meaningful impact on entrepreneurship as a pathway to ethnic minority women's economic empowerment.

Based on the hypotheses, the following research model is proposed (Figure 1).

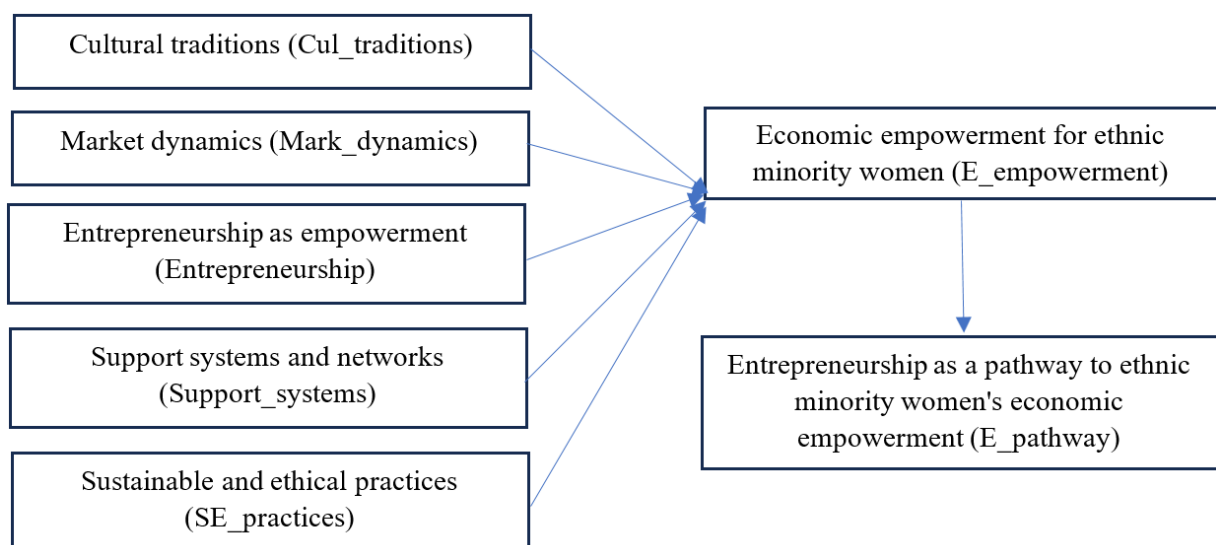


Figure 1. Proposed research model.

3. METHODOLOGY

3.1. Instrument and Participant

This study employed a structured, cross-sectional survey to examine the relationship between entrepreneurship and economic empowerment among ethnic minority women in Vietnam's Northwest region. A total of 200 women were surveyed, representing five major ethnic groups: Dao, H'Mong, Nung, Tay, and Thai. These participants were selected due to their prominent involvement in both entrepreneurial and pre-entrepreneurial activities, particularly within household-based economic roles [39].

To ensure representativeness across diverse ethnic backgrounds, a stratified random sampling technique was implemented. The sampling frame was constructed by identifying sub-populations based on ethnic affiliation. Each group was treated as a stratum, from which participants were randomly selected to achieve proportional representation. This approach enhanced the external validity of the findings by mitigating sampling bias and ensuring diversity in terms of ethnicity, age, education, and business status [40, 41].

Data collection was carried out through face-to-face distribution of printed questionnaires. This method was deliberately chosen to maximize response rates and facilitate understanding, especially in rural or lower-literacy areas [42]. Participants completed the survey using a pencil-and-paper format, a method demonstrated to be effective in eliciting authentic responses within comparable sociocultural settings [43]. The questionnaire consisted of both demographic items and psychometric scales measuring latent constructs such as economic empowerment, cultural traditions, and support systems.

Informed consent was obtained from all participants prior to data collection. The anonymity and confidentiality of responses were strictly maintained to promote honesty and trust. Ethical approval for the study was granted by the Ministry of Culture, Sports and Tourism, Vietnam, on January 20, 2022 (Ref. No: 3327), following standard research protocols involving human subjects [44, 45]. The demographic characteristics of the participants including age, education level, ethnicity, business experience, and type of business are detailed in Table 1. These variables were used not only to describe the sample but also to facilitate subgroup analyses in later stages of the research.

Ethical principles, particularly related to informed consent and confidentiality, were maintained throughout the study. The timing of the survey, in February 2024, was intentional because it is after most agricultural harvest schedules and increased the likelihood of participation and engagement. The first portion of the survey questionnaire contained core demographic information, including age, gender, education, and occupation [46], and the second portion examined participants' specific entrepreneurial activities and their economic roles in the community (Appendix 1).

Table 1. Demographic characteristics of survey participants.

Items		Education					
		Bachelor		High school		Some college	
		Count	Row N %	Count	Row N %	Count	Row N %
Age	Under 26 years old	10	37.0%	11	40.7%	6	22.2%
	26-35 years old	20	35.1%	21	36.8%	16	28.1%
	36 -50 years old	29	33.0%	44	50.0%	15	17.0%
	Over 50 years old	10	35.7%	12	42.9%	6	21.4%
Gender	female	40	33.6%	57	47.9%	22	18.5%
	male	29	35.8%	31	38.3%	21	25.9%
Ethnic_minority	Dao	12	44.4%	12	44.4%	3	11.1%
	Hmong	16	30.8%	23	44.2%	13	25.0%
	Nung	16	39.0%	17	41.5%	8	19.5%
	Tay	15	31.9%	23	48.9%	9	19.1%
	Thai	10	30.3%	13	39.4%	10	30.3%

Items		Education					
		Bachelor		High school		Some college	
		Count	Row N %	Count	Row N %	Count	Row N %
Business_status	I have already started a business.	21	30.0%	32	45.7%	17	24.3%
	I intend to start a business.	48	36.9%	56	43.1%	26	20.0%
Type_business	Agriculture/Farming	9	25.7%	15	42.9%	11	31.4%
	Manufacturing	11	35.5%	11	35.5%	9	29.0%
	Retail	31	40.3%	31	40.3%	15	19.5%
	Services	18	31.6%	31	54.4%	8	14.0%
Business_experience	over 10 years	14	35.0%	19	47.5%	7	17.5%
	1-5 years	27	36.5%	31	41.9%	16	21.6%
	6 -10 years	20	33.9%	26	44.1%	13	22.0%
	Less than 1 year	8	29.6%	12	44.4%	7	25.9%

3.2. Reliability Analysis

When using Cronbach's alpha, we assess the degree to which our survey questionnaire questions are positively correlated as an indication that the questions are intended to measure the same underlying factor. A high alpha indicates reliability for your questionnaire, while a low alpha may suggest that your questionnaire needs revision. As with the outcomes of any standardized assessment, the interpretation of Cronbach's alpha results is subjective and context-dependent [47]. In general, alpha scores of 0.70 and higher are considered acceptable for most surveys, indicating high internal consistency and reliability [48]. An alpha of 0.60–0.70 may be adequate for certain surveys but might indicate that the underlying constructs measured by questionnaires do not adequately capture the intended construct. This suggests that the research warrants some revision or deletion of the questionnaire items. Alpha scores below 0.60 are considered low and generally indicate that the questions do not adequately measure a single underlying construct. Such questionnaires may need to be extended, revised, or deleted [49].

Table 2. Summary of reliability.

Latent variable	Number of variables observed	Reliability coefficients (Cronbach's Alpha)	Composite reliability (CR)	Average variance extracted (AVE)
E_empowerment	4	0.756	0.756	0.437
E_pathway	4	0.827	0.828	0.546
Cul_traditions	4	0.799	0.820	0.534
Mark_dynamics	4	0.815	0.810	0.518
Entrepreneurship	4	0.729	0.801	0.503
Support_systems	4	0.757	0.763	0.449
SE_practices	4	0.805	0.730	0.404

Composite Reliability (CR) is a commonly used metric to assess the internal consistency of a group of items within a scale or questionnaire [50-54]. It evaluates whether items designed to measure a single construct (latent variable) do so in a consistent manner [55]. Mathematically, CR is the ratio of the variance of the true scores to the total variance of observed scores [56], representing the proportion of variance attributed to the underlying construct rather than measurement error or random noise [57]. A CR value of 0.70 or higher is generally considered acceptable, indicating satisfactory internal consistency. However, this threshold may vary depending on the specific research context and the intended application of the scale. Average Variance Extracted (AVE) complements CR by examining how much variance in the observed variables is explained by the latent construct. Unlike CR, which uses total variance, AVE focuses on the shared variance among items and is often used within confirmatory factor analysis

(CFA) in structural equation modeling (SEM). AVE is calculated by averaging the squared factor loadings of each item on its construct, then dividing by the sum of item variances and error variances [58, 59]. Values range from 0 to 1, with values of 0.50 or higher indicating adequate convergent validity and construct reliability [60]. As with CR, AVE acceptability can be context-dependent and may vary with the purpose and design of the research [61, 62].

Table 2 presents the results of the research questionnaire's thorough reliability and validity assessment. Following the recommendation of Fabrigar et al. [63], Cronbach's alpha coefficients for all constructs exceeded 0.70, confirming acceptable internal consistency. Composite reliability values also met the minimum threshold of 0.70, with each construct including five to eight items, indicating reliable measurement of the underlying structure. Factor loadings for all items were above 0.70, meeting the criterion for convergent validity. Similarly, AVE values for each construct were at or above the 0.50 threshold, supporting adequate variance explanation and construct validity. These results confirm that the measurement model possesses acceptable reliability and validity, enabling further analysis of the proposed research framework.

3.3. Factor Analysis

Factor analysis is a frequently used statistical technique within the social sciences that researchers can employ to identify hidden factors or dimensions within a set of variables. It involves a process of detecting inter-correlations among variables to reduce a dataset into a smaller number of factor dimensions [64]. Often the choice of how many factors to extract is made by interpreting a scree plot and examining the eigenvalues [65].

Table 3. Result of factor analysis.

Rotated component matrix ^a							
	Component						
	1	2	3	4	5	6	7
E_pathway4	0.801						
E_pathway1	0.766						
E_pathway2	0.706						
E_pathway3	0.688						
Mark_dynamics3		0.787					
Mark_dynamics2		0.779					
Mark_dynamics4		0.743					
Mark_dynamics1		0.634					
Se_practices3			0.775				
Se_practices1			0.750				
Se_practices4			0.724				
Se_practices2			0.577				
Cul_traditions1				0.728			
Cul_traditions4				0.723			
Cul_traditions3				0.670			
Cul_traditions2				0.651			
Support_systems2					0.742		
Support_systems4					0.729		
Support_systems3					0.659		
Support_systems1					0.628		
E_empowerment1						0.769	
E_empowerment4						0.644	
E_empowerment3						0.620	
E_empowerment2						0.572	
Entrepreneurship2							0.730
Entrepreneurship1							0.702
Entrepreneurship3							0.687
Entrepreneurship4							0.623
Extraction method: Principal component analysis.							
Rotation method: Varimax with Kaiser normalization.							
Note: A Rotation converged in 7 iterations. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) = 0.896. Bartlett's Test of Sphericity (Chi-square = 2228.131; df = 378; Sig. = 0.000). Extraction sums of squared loadings = 63.069; Initial eigenvalues = 1.042.							

The findings from factor analysis create the opportunity to better delineate research questions, hypotheses, and models, as well as to determine the factors that underlie the connections between variables in the dataset [66].

Table 3 presents the results of the exploratory factor analysis (EFA), confirming the validity of the research questionnaire. The Bartlett's test of sphericity was statistically significant (Sig. = 0.000), and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.896, exceeding the recommended minimum threshold of 0.5. These values indicate sufficient intercorrelations among the observed variables, confirming the suitability of the data for factor analysis.

All observed variables demonstrated factor loading coefficients of 0.5 or higher, which exceeds the acceptable cutoff for practical significance. According to standard criteria, factor loadings above 0.3 are considered acceptable, above 0.4 are essential, and above 0.5 are acceptable. The reported factor loadings thus provide strong support for construct validity.

The six extracted factors accounted for a total of 63.069% of the variance, well above the 50% benchmark for adequacy in factor models, demonstrating that a substantial portion of the variance is explained by these factors. Additionally, the initial eigenvalues for all six factors were greater than 1.0 (minimum = 1.042), supporting the retention of these components based on Kaiser's criterion. Overall, the results validate the appropriateness of using EFA in this context and confirm the robustness of the proposed research model [67].

3.4. Structural Equation Modeling

Structural equation modeling (SEM) is an extensively utilized statistical methodology within the realm of social sciences for examining the associations among variables situated in a complex system. As elaborated by Bartholomew [68], SEM represents a multivariate analysis model that integrates elements from regression analysis, factor analysis, and causal modeling. A set of equations is constructed in SEM to represent how the system's variables come to be related to one another [69]. These equations may be used to measure both the strength and directionality of the relationships among variables and the extent to which an underlying latent factor accounts for heavier reliance on these associations. Additionally, a benefit of SEM is that the equations can assess modified variances along the system variables, such that changes to a variable may predict some future states of equal values under specified conditions. SEM can also assess theories about the relationship among concepts as it pertains to variables [70], but it also can specify hypothesis models (multiplicity of relationships contained in hypotheses) associated with concepts in the examination of relationships among variables within systems. Bacco and Dalpiaz [71] reveal that the results of SEM may also provide valuable insights for considering intermediate processes and effects, leading to more precise and accurate conclusions when examining the complexities associated with systems. This approach offers guidance for subsequent theoretical and model development. Examples include models that indicate indirect and mediating effects (a style of reporting simpler effects relations among distinct variables), as well as direct effects, which are inherent to the value of SEM.

Table 4. Regression weights.

Dependent variable	Relationship/ Impact	Independent variable	Estimate	S.E.	C.R.	P-value	Decision
E_empowerment.	<---	Mark_dynamics.	-0.107	0.070	-1.538	0.124	Not supported H1
E_empowerment.	<---	SE_practices.	0.217	0.073	2.990	0.003	Supported H2
E_empowerment.	<---	Cul_traditions.	0.362	0.094	3.860	0.000	Supported H3
E_empowerment.	<---	Support_systems.	0.206	0.079	2.620	0.009	Supported H4
E_empowerment.	<---	Entrepreneurship.	0.199	0.093	2.150	0.032	Supported H5
E_pathway.	<---	E_empowerment.	0.847	0.135	6.267	0.999	Supported H6

To evaluate the goodness of fit of the structural equation model (SEM), multiple fit indices were employed, including the Chi-square (χ^2) statistic, Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI). For a model to be considered well-fitting, conventional thresholds require CFI and TLI values ≥ 0.900 , and RMSEA and SRMR values ≤ 0.08 . As illustrated in Figure 2, the model met these criteria. The Chi-square statistic was 371.762 with 334 degrees of freedom ($p = 0.076$), resulting in a Chi-square/df ratio of 1.113, which is within the acceptable range. Additional fit indices also supported the model's adequacy: GFI = 0.885 (close to the recommended 0.9), TLI = 0.978, and RMSEA = 0.024, all indicating a good fit. Table 4 presents the structural path coefficients and relationships among variables. Collectively, these results confirm that the SEM provides a good representation of the data and supports the validity of the proposed research model.

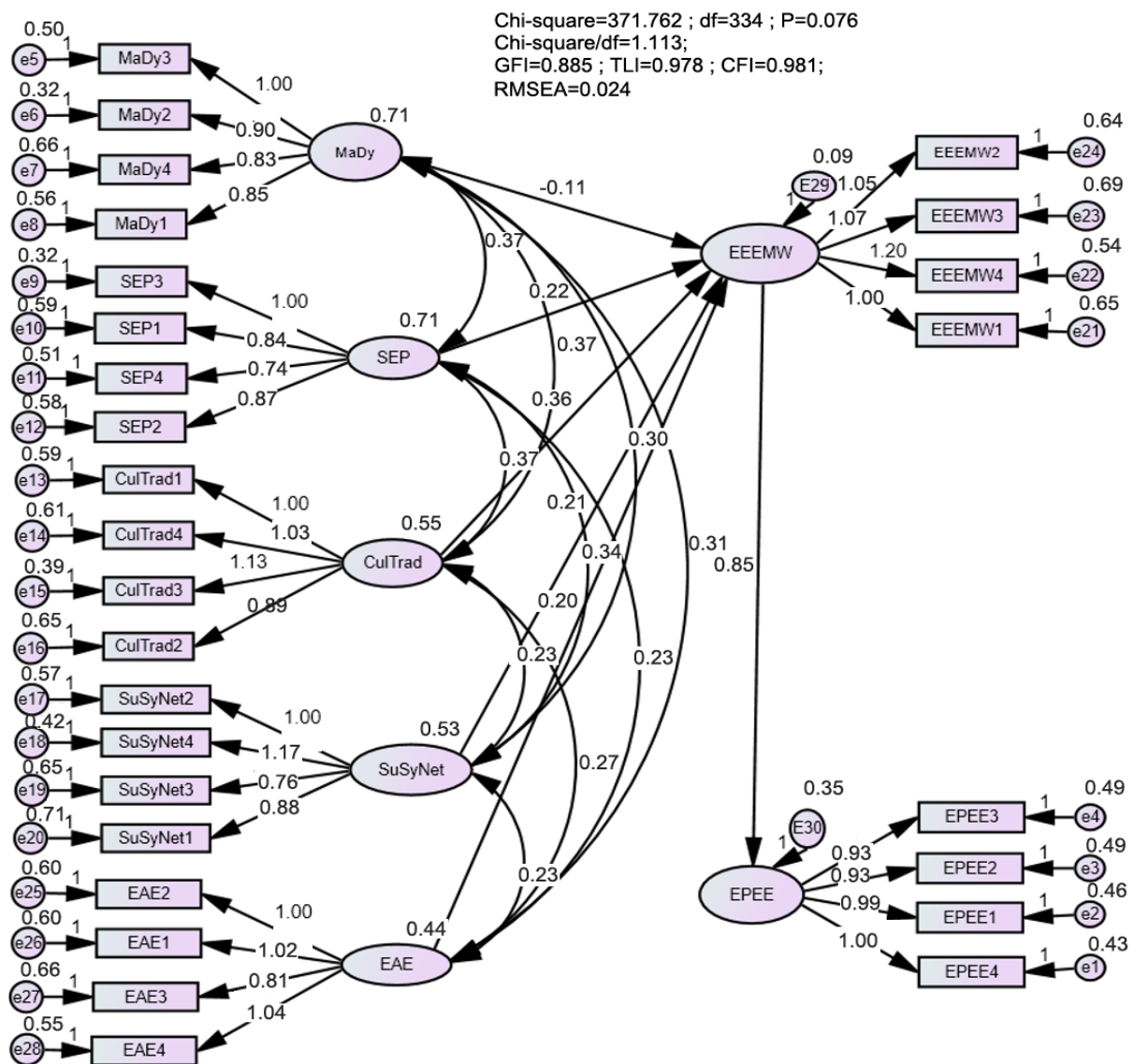


Figure 2. SEM analysis results.

Note: MaDy = Market dynamics;
SEP = Sustainable and ethical practices;
CulTrad = Cultural traditions;
SuSyNet = Support systems and networks;
EAE = Entrepreneurship as empowerment;
EEEMW = Economic empowerment for ethnic minority women;
EPEE = Entrepreneurship as a pathway to economic empowerment.

4. RESULTS AND DISCUSSION

4.1. Results

Undoubtedly, the Structural Equation Modeling (SEM) analysis reviewed here, as depicted in Table 4, provides additional insight into the complex factors impacting the economic empowerment of women from ethnic minorities. The SEM analysis rigorously tested a total of six hypotheses (H1-H6), with the following results: influence of cultural traditions on economic empowerment.

The first hypothesis (H1) predicts a positive influence of cultural traditions and the economic empowerment of ethnic minority women. The SEM analysis supports this hypothesis, revealing a statistically significant positive relationship, as indicated by a regression weight (β) of 0.362 and a p-value of less than 0.001, between cultural traditions and economic empowerment. This suggests strong evidence of a relationship and highlights the importance of cultural identity in achieving entrepreneurial success.

Impact of Market Dynamics on Economic Empowerment: Contrary to the pattern suggested by Hypothesis H2, which proposed a positive impact of market dynamism, the SEM analysis indicates a negative relationship. The regression weight was -0.107 with a p-value of 0.124, which exceeds the significance threshold of 0.050. Therefore, this finding rejects Hypothesis H2, suggesting that market dynamism does not significantly influence economic empowerment in this study.

The role of entrepreneurship as empowerment: Supporting H3, the analysis demonstrated a positive and significant relationship between entrepreneurship and empowerment, specifically economic empowerment. The regression weight is 0.199 with a p-value of 0.032, indicating that entrepreneurship plays a key role as a source of self-efficacy and economic independence among women from ethnic minority backgrounds.

Support Systems and Networks Hypothesis (H4) was supported through SEM analysis, suggesting a positive relationship between support systems and networks and economic empowerment; their regression weight was 0.206, and the p-value was 0.009. This finding underscores the significant role of support networks and mentorship in promoting economic opportunities for ethnic minority women entrepreneurs.

Sustainable and ethical practices: Consistent with hypothesis H5, the SEM analysis revealed a significant positive relationship between sustainable and ethical practices and economic empowerment ($\beta = 0.217$, p-value = 0.003). This indicates that incorporating sustainable and ethical business practices benefits the larger community and the environment, and also appears to contribute to the economic empowerment of ethnic minority women.

To complete the discussion around H6, the SEM analysis provides strong evidence that economic empowerment is highly positively associated with entrepreneurship as a pathway to further economic empowerment for ethnic minority women ($\beta = 0.847$, p-value < 0.001). This finding highlights the strong relationship that economic empowerment through entrepreneurship creates a virtuous circle leading to continued economic empowerment.

In summary, the SEM analysis broadly reveals that there is a significant positive relationship among cultural traditions, entrepreneurship as empowerment, support systems and networks, and sustainable and ethical practices in understanding economic empowerment for ethnic minority women. In contrast, the hypothesized association between market dynamics and economic empowerment was not significantly positive.

4.2. Conclusion

This research has identified several factors within the entrepreneurial process that contribute to economic empowerment for ethnic minority women in Vietnam. Specifically, the findings suggest that cultural, social, and ethical aspects of entrepreneurial activities are significant. Understanding these cultural factors is essential to comprehend how these practices influence ethnic minority women in managing their responsibilities within their entrepreneurial ecosystem and identity.

The study also explored the market context for these emerging entrepreneurs, moving beyond a market orientation with its synthesis of definitions of success related to resilience, dynamic adaptability, and the social

emergence of expertise. This extends to a more complex sense of empowerment beyond economic benefits, relating to broader social accomplishments such as personal recognition for growth and social standing within the community. These research results serve as a basis for calling community stakeholders, policymakers, and educators to actively engage in these discussions to foster culturally responsive support for entrepreneurship among minority ethnic women.

However, there are always limits to a defined inquiry. One such limit is that cultural variances and norms within the associated ethnic minority groups may affect the generalizability. Additionally, the current research is cross-sectional and only allows the ability to follow each ethnic minority woman in entrepreneurial activities and understand the longevity of the impact this ultimately has on economic empowerment. The follow-up investigative pathway should adopt a longitudinal approach to provide a richer understanding of the economic trajectory and lateral mobility of each of the women referenced in the study.

While the proposed objectives focus on combining culturally-based strengths with the potential agility of an interlocking, social-capital-based network through sustainable and responsible entrepreneurial endeavors, they are inherently multi-layered. This involves systematically investigating the layered dimensions of entrepreneurship in terms of the economic empowerment of ethnic women in follow-up studies. Longer-term research may also explore the nuanced relationships between entrepreneurship and the social and economic empowerment of ethnic women, emphasizing facilitators and barriers encountered during the entrepreneurial process.

In summary, this study situates entrepreneurship as an important pathway for empowerment for ethnically diverse women who have an affinity for or roots in different cultural contexts, with frameworks in place to support them. Our conceptualization of success is contextualized; more broadly, outside of a conventional understanding of marketplace success, therefore success must be comprehensively defined to broadly understand the entrepreneurial process of ethnically diverse women.

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Appendix 1. Questionnaire.

Your profile: Please select ONE answer from each statement that best describes you.

Age: ☐18-24 ☐25-34 ☐35-44 ☐45-54 ☐55-64 ☐65 or older

Education Level:

- ☐Some high school
☐High school graduate
☐Some college
☐Bachelor's degree
☐Graduate degree

Business Status:

- ☐I have already started a business.
☐I intend to start a business.

Type of Business (if applicable):

- ☐Agriculture/Farming
☐Retail
☐Services
☐Manufacturing
☐Technology
☐Other (Please specify)

Years of Business Experience (if applicable):

- ☐Less than 1 year
☐1-5 years
☐6 -10 years
☐11 -15 years
☐More than 15 years

The purpose of this survey is to explore the role of entrepreneurship as a pathway to economic empowerment for ethnic minority women. There are no right or wrong answers to the statements presented. Please read each item carefully and indicate your level of agreement using a 5-point Likert scale, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree."

Economic empowerment for ethnic minority women						
E_empowerment1	My business endeavors have improved my financial independence.	1	2	3	4	5
E_empowerment2	My economic status has improved due to my entrepreneurial activities.	1	2	3	4	5
E_empowerment3	Entrepreneurship has enabled me to support my family better financially.	1	2	3	4	5
E_empowerment4	Running a business has given me more control over my financial future.	1	2	3	4	5
Entrepreneurship as a pathway to economic empowerment						
E_pathway1	Starting a business is a good way for women in my community to achieve economic success.	1	2	3	4	5
E_pathway2	Entrepreneurship offers better economic opportunities than traditional employment for women like me.	1	2	3	4	5
E_pathway3	I believe entrepreneurship can help overcome economic barriers faced by ethnic minority women.	1	2	3	4	5

E_pathway4	Women in my community see entrepreneurship as a viable path to financial independence.	1	2	3	4	5
Cultural traditions						
Cultural_traditions1	My cultural traditions influence the way I run my business.	1	2	3	4	5
Cultural_traditions2	My business needs to reflect my ethnic heritage.	1	2	3	4	5
Cultural_traditions3	My community's cultural practices impact my business decisions.	1	2	3	4	5
Cultural_traditions4	I consider my cultural identity an asset in my entrepreneurial journey.	1	2	3	4	5
Market dynamics						
Market_dynamics1	I am confident in understanding and adapting to market trends.	1	2	3	4	5
Market_dynamics2	My business has been affected by local/Global market changes.	1	2	3	4	5
Market_dynamics3	I actively seek information about new market opportunities and threats.	1	2	3	4	5
Market_dynamics4	The market needs of my community are a critical factor in my business strategy.	1	2	3	4	5
Entrepreneurship as empowerment						
Entrepreneurship1	Running a business has increased my confidence and self-esteem.	1	2	3	4	5
Entrepreneurship2	I feel more respected in my community because I am an entrepreneur.	1	2	3	4	5
Entrepreneurship3	Entrepreneurship has given me a sense of personal accomplishment.	1	2	3	4	5
Entrepreneurship4	I believe my entrepreneurial activities inspire other women in my community.	1	2	3	4	5
Support systems and networks						
Support_systems1	I have access to a network of mentors and advisors who assist me in my business.	1	2	3	4	5
Support_systems2	My community has sufficient resources and support systems for women entrepreneurs.	1	2	3	4	5
Support_systems3	I often collaborate with other entrepreneurs for mutual business growth.	1	2	3	4	5
Support_systems4	My family and friends play a significant role in supporting my entrepreneurial endeavors.	1	2	3	4	5
Sustainable and ethical practices						
SE_practices1	I am committed to maintaining sustainable practices in my business.	1	2	3	4	5
SE_practices2	Ethical considerations are a priority in my business decisions.	1	2	3	4	5
SE_practices3	I strive to make a positive social impact through my business.	1	2	3	4	5
SE_practices4	My business contributes to the environmental well-being of my community.	1	2	3	4	5

Thanks for participating!

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