

Entrepreneurial Individuality and Network Cooperation: Impacts on the Sustainable Performance of Homestay Businesses in Pak Chong, Thailand

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Abstract

This study aims to analyze the influence of entrepreneurial individuality and cooperation with tourism management networks on the sustainable performance of homestay and small hotel businesses in Pak Chong District, Nakhon Ratchasima Province, using three dimensions: economic, social, and environmental. Quantitative research methodology was employed involving the purposive sampling of 166 participants, selected from a population of 282 (Department of Provincial Administration, 2024). The sample size was determined using the work of Yamane (1967). The research instrument demonstrated acceptable reliability, with Cronbach's alpha ranging from 0.648 to 0.874.

Data were analyzed using descriptive and inferential statistics. The results from multiple regression analysis revealed that both entrepreneurial individuality and network cooperation positively and statistically significantly influenced all three dimensions of sustainability at the 0.01 significance level. For economic performance, the standardized coefficients were $\beta = 0.189$ and 0.404 , respectively. For social performance, the standardized coefficients were $\beta = 0.196$ and 0.364 , and $\beta = 0.190$ and 0.419 for environmental performance.

The findings contribute to theoretical development by integrating internal psychological traits with external network structures to explain the holistic mechanisms of sustainable performance. Policy implications highlight the need to promote entrepreneurial networks and enhance the capacity of small-scale entrepreneurs to ensure their long-term competitiveness and resilience.

Keywords: Entrepreneurial individuality, Tourism management network cooperation, Sustainable performance

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Introduction

The hotel and accommodation industry in Thailand is a key economic driver, playing a role in generating tourism revenue and employment at the national level. Despite the impact of the COVID-19 pandemic (2019–2022), the industry has demonstrated resilience, particularly in the homestay and small hotel segments, which cater to the needs of modern travelers who value personalized experiences (Alshamlan et al., 2023).

Pak Chong District in Nakhon Ratchasima Province is a rapidly growing tourist area with many small accommodations. According to data from Pak Chong Town Municipality (2021), Pak Chong District is one of the top five districts in the country with an average income per person per year and ranked first in the Northeast at an average of 59,521.13 baht per person per year, 50.5% of which comes from the service industry (Community Development Office of Nakhon Ratchasima Province, 2019). Its proximity to Khao Yai National Park, a UNESCO World Heritage Site, has resulted in the area having a unique tourism identity that emphasizes sustainability, such as nature tourism, health tourism, and agriculture, making it different from urban or coastal tourist attractions (UNESCO World Heritage Centre, 2005; Ministry of Natural Resources and Environment, 2023). This geographical feature is conducive to creative entrepreneurship and promotes sustainable development at the local level (Chatkaewnapanon & Lee, 2022).

However, businesses in these areas still face constraints in terms of capital, labor, and competitiveness. Therefore, they need to rely on the internal factors of entrepreneurs and external networks to drive sustainable business. Specifically, “Entrepreneurial Individuality,” encompassing psychological characteristics such as self-confidence, independent decision-making, and flexibility in adapting, helps to create long-term competitive advantage (Malesu & Syrovátka, 2025; Barney, 1991). These characteristics relate to the ability to innovate and develop businesses, which is effectively linked to the identity of the area, facilitating the communication of organizational values for consistency with stakeholders and to build social capital in the long term (Freeman, 1984).

Meanwhile, “Cooperation with Tourism Management Networks” is another important structural mechanism that helps strengthen the capabilities of small entrepreneurs by helping them access resources, knowledge, and management in collaboration with various sectors in the tourism ecosystem (Chatkaewnapanon & Lee, 2022; Rienda et al., 2024). Network cooperation has a positive impact on sustainability in the economic, social, and environmental dimensions, especially in areas like Pak Chong, where environmental quality directly affects tourism income, and employment in the community affects the distribution of benefits more evenly (Neupane et al., 2025; Rykkje et al., 2023; Teruel-Sanchez et al., 2025). Past research has highlighted the role of networks in multiple dimensions, such as economic—enhancing competitiveness and market access (Mishra et al., 2025); environmental—contributing to natural resource management (Zhang & Zhang, 2025); and social—facilitating community co-ownership and participatory development

(Luekveerawattana, 2024). Therefore, a joint analysis of both internal and external factors is necessary to understand the mechanisms for promoting holistic sustainability.

This research aims to examine how entrepreneurs' self-identity and collaboration with tourism management networks affect the sustainable performance of homestays and small hotels in Pak Chong District, Nakhon Ratchasima Province. By addressing existing theoretical gaps, this study also seeks to provide practical policy recommendations for developing small tourism businesses. In particular, the findings are expected to benefit homestay entrepreneurs, local tourism networks, and government agencies in Pak Chong by informing targeted capacity-building strategies and sustainability-focused collaborations tailored to the area's unique socio-environmental context.

Purpose

1) To analyze the levels of entrepreneurial individuality, cooperation with tourism management networks, and sustainable performance across economic, social, and environmental dimensions of homestay and small hotel businesses in Pak Chong District, Nakhon Ratchasima Province.

2) To examine the influence of entrepreneurial individuality and cooperation with tourism management networks on the sustainable performance of such businesses according to the economic, social, and environmental dimensions.

Literature Review

Entrepreneurial individuality

Entrepreneurial individuality refers to the entrepreneur's ability to work and make decisions independently under pressure, demonstrating confidence, problem-solving, and self-reliance (Frontiers in Psychology, 2023; Gómez-Jorge et al., 2025). In this study, it is defined through four key behaviors: working independently, making decisions under stress, acting without reliance on others, and confronting problems autonomously.

As an internal factor, entrepreneurial individuality supports sustainable business development. Entrepreneurs with high individuality tend to formulate effective strategies (Kusi et al., 2024), foster strong community ties, and adopt environmentally conscious approaches (Asante et al., 2024). Thus, this trait not only reflects leadership and risk-taking but also plays a critical role in driving balanced performance across economic, social, and environmental dimensions.

This link between entrepreneurial individuality and sustainability performance has also been highlighted in studies on international hospitality. For instance, individuality traits such as strategic proactivity and autonomous decision-making are found to enhance eco-conscious business operations and long-term competitiveness among small hotels (Calisto et al., 2021). Additionally, Kant and Niguse (2025) demonstrated that entrepreneurial orientation significantly

predicts sustainability outcomes in eco-hotels, mediated by customer loyalty, emphasizing how internal capabilities translate into both environmental stewardship and economic resilience.

Cooperation with tourism management networks

Cooperation with tourism management networks refers to collaborative arrangements between entrepreneurs and stakeholders such as government agencies, tourism associations, and other operators to improve business efficiency through resource sharing, joint marketing, and collective knowledge development (Valderrama et al., 2025; Pennington-Gray & Basurto-Cedeno, 2023). Such cooperation supports social learning and long-term relationships, which are critical for small accommodation businesses with limited resources.

These collaborations also facilitate sustainable development across the economic, social, and environmental dimensions. This aligns with network theory, which emphasizes the importance of embeddedness, trust, and reciprocity in achieving collective outcomes (Borgatti & Halgin, 2011). In tourism, networks act as platforms for shared governance and knowledge co-creation that enhance adaptive capacity and resilience in local enterprises (Bramwell & Lane, 2011). Particularly in the accommodation sector, cooperative ties are shown to positively influence business continuity and sustainable transformation (Nunkoo et al., 2023). Economically, they expand market access via shared booking platforms and campaigns (Turnšek & Radivojević, 2025). Socially, they promote local employment, skill development, and equitable benefit distribution (Hassani & Williamson, 2024). Environmentally, networks foster joint practices in waste management, efficient resource use, and natural conservation (Ahmad & Esposito, 2025).

Thus, network cooperation not only enhances individual business capacity but also acts as a structural infrastructure for sustainable local tourism development.

Sustainable performance

Sustainable performance refers to a business's ability to balance economic, social, and environmental dimensions for long-term growth. Economically, it involves revenue generation, efficient investment, and competitiveness. Socially, it relates to local employment, equitable income distribution, and development grounded in cultural capital. Environmentally, it emphasizes efficient resource use, waste reduction, and the mitigation of tourism impacts (Al-Abbadi & Abu Rumman, 2023).

Cooperation with tourism management networks is a key strategy that supports all three dimensions. Economically, it improves market access, income, and competitiveness through knowledge sharing and joint marketing (OECD, 2023). Socially, it enhances human capital, fosters community relations, and promotes equitable benefit distribution (Zhang et al., 2020). Environmentally, it enables collaborative practices in natural resource and waste management (Koiwanit & Filimonau, 2023). Such cooperation empowers small tourism enterprises to achieve sustainable development goals at the local level. For homestays and small-scale

accommodations in particular, these cooperative strategies offer tangible tools for implementing sustainability in day-to-day operations.

These multi-stakeholder collaborations align with stakeholder theory (Freeman, 1984), which underscores the need to balance diverse interests and foster shared responsibility for sustainable tourism outcomes.

Effects of entrepreneurial individuality on sustainable performance

A review of the literature on entrepreneurial individuality reveals its significant role in fostering sustainability across economic, social, and environmental dimensions. Muñoz and Cohen (2018), in their study involving 60 entrepreneurs and 270 venture capitalists, found that self-identity strongly correlated with all three sustainability dimensions. Similarly, research by Cesinger et al. (2022) shows that entrepreneurs with a clear self-identity can seamlessly integrate business goals with social and environmental values, resulting in sustainable performances across all three dimensions: economic growth, social responsibility, and environmental conservation.

Recent research has revealed that the green identity of tourism entrepreneurs plays an important role in creating sustainable competitive advantages, especially in terms of responsible resource management, creating an image consistent with environmental goals, and attracting ecotourists (Alsheref et al., 2024). In the hotel industry context, Calisto et al. (2021) reported that entrepreneurs who exhibited strong individuality traits—such as autonomous decision-making and proactive leadership—were more likely to effectively implement environmental sustainability strategies, even in resource-constrained small hotel businesses. Similarly, Neupane et al. (2025) studied the success of tourism SMEs in emerging economies and found that “entrepreneurial orientation,” reflecting the beliefs, creativity, and flexibility of business owners, was directly related to innovation and sustainable business growth, especially when linked to networking strategies, leadership, and strategic agility.

In the context of the homestay business, entrepreneurial self-identity is related to the construction of place identity and social capital, which affects the long-term sustainability of homestay operations (Yin & Zhou, 2023). At the same time, cultural and natural factors remain important elements for promoting the success of homestays, especially in rural areas with strong cultural capital (Luekveerawattana, 2024).

Collectively, these studies emphasize entrepreneurial individuality as a psychological asset that enables strategic thinking, adaptive capacity, and context-sensitive leadership, particularly critical for sustainable development in people-oriented service sectors like homestays and small hotels. The findings of the literature review are summarized in Table 1.

Table 1 Review of the literature on entrepreneurial individuality influencing sustainable performance

General Research	Economic	Social	Environmental
Muñoz & Cohen (2018)	+	+	+
Cesinger et al. (2022)	+	+	+
Research in the context of the service industry	Economic	Social	Environmental
Alsheref et al. (2024)	+	n/s	+
Neupane et al. (2025)	+	+	n/s
Yin & Zhou (2023)	+	+	n/s
Luekveerawattana (2024)	n/s	+	+
Calisto et al. (2021)	n/s	n/s	+

Note: The symbol + indicates research findings that demonstrate a positive impact on sustainable performance.

The symbol – indicates research findings that demonstrate a negative impact on sustainable performance.

The symbol n/s indicates research findings that show no significant impact on sustainable performance.

The hypotheses in this study are grounded in the resource-based view (RBV), which posits that valuable, rare, and inimitable internal resources, such as entrepreneurial individuality, play a crucial role in achieving sustained competitive advantage and long-term performance (Barney, 1991). In this context, traits such as self-confidence, autonomous decision-making, and flexibility are internal mechanisms that enhance business sustainability across economic, social, and environmental dimensions.

Additionally, this study draws on stakeholder theory, which emphasizes the importance of managing relationships with stakeholders in a balanced and responsible manner (Freeman, 1984). Entrepreneurs with high individuality are more likely to consider the broader impacts of their actions on communities and the environment, thereby increasing the likelihood of achieving sustainable performance in the long run.

Based on the integration of the RBV and stakeholder theory, the following hypotheses (H1–H3) are proposed to examine the effects of entrepreneurial individuality on sustainable performance across three dimensions:

H1: Entrepreneurial individuality has a positive effect on economic sustainable performance.

H2: Entrepreneurial individuality has a positive effect on sustainable social performance.

H3: Entrepreneurial individuality has a positive effect on environmentally sustainable performance.

Effects of cooperation with tourism management networks on sustainable performance

Network collaboration plays a crucial role in business sustainability, especially for industries facing environmental pressures and stakeholder demands. Mishra et al. (2025) found that continuous interaction and resource exchange between entrepreneurs and their industry partners can promote mutual learning and lead to sustainable economic and environmental performance. Similarly, Zhang and Zhang (2025) stated that developing green supply chain networks with business partners can improve production quality and reduce environmental impacts to achieve sustainable development goals in the industry sector.

Small-scale accommodation businesses in the tourism sector, especially in areas relying on natural resources and local communities, need to collaborate with networks to enhance their competitiveness and sustainability across economic, social, and environmental dimensions. The research by Chatkaewnapanon and Lee (2022) indicates that the use of future planning tools, such as community forecasting activities, promotes participation, self-management, and flexibility in tourism management, leading to sustainable development in all three dimensions. In addition, Chaiyakheta and Chaiyakot (2025) stated that cooperation between green hotels and communities can increase income, improve quality of life, and have tangible positive effects on the environment.

Network collaboration enhances sustainable outcomes in tourism small businesses: the strengthening of internal networks fosters sustainable performance (Núñez-Ríos et al., 2022), while external network ties bolster competitiveness and environmental resilience (Rienda et al., 2024). Additionally, relational network capital drives resilience and multidimensional sustainability (Widiatmaka et al., 2024). The findings of the literature review are summarized in Table 2.

Table 2 Review of the literature on cooperation with tourism management networks that influence sustainable performance

General Research	Economic	Social	Environmental
Mishra et al. (2025)	+	n/s	+
Zhang & Zhang (2025)	+	n/s	+
Research in the context of service industry	Economic	Social	Environmental
Chatkaewnapanon & Lee (2022)	+	+	+
Chaiyakheta & Chaiyakot (2025)	+	+	+
Rienda et al. (2024)	+	n/s	+
Núñez-Ríos et al. (2022)	+	n/s	+
Widiatmaka et al. (2024)	+	+	+

Note: The symbol + indicates research findings that demonstrate a positive impact on sustainable performance.

The symbol – indicates research findings that demonstrate a negative impact on sustainable performance.

The symbol n/s indicates research findings that show no significant impact on sustainable performance.

This study draws on stakeholder theory (Freeman, 1984), which posits that long-term business sustainability is influenced by the extent to which firms consider the interests of stakeholders, including communities, employees, government agencies, and the environment across economic, social, and environmental dimensions. In parallel, the study also adopts network theory (Borgatti & Halgin, 2011), which emphasizes that collaboration among actors in a network through information sharing, joint decision-making, and cooperative resource management can enhance organizational capabilities and foster sustainable competitiveness. These perspectives are particularly relevant in the tourism accommodation sector, where sustainability depends on multi-sectoral cooperation across public, private, and community actors to co-create a balanced tourism ecosystem.

To clarify and support hypotheses H4–H6, the following discussion breaks down the theoretical rationale according to the sustainability dimension.

Economic sustainability

Network collaboration increases economic efficiency through co-marketing, service sharing, and increased market access, key mechanisms explained by network theory and the resource-based perspective. Studies by Mishra et al. (2025) and Chatkaewnapanon and Lee (2022) provide empirical support for these mechanisms. As shown in Table 2, all reviewed studies, both in general and tourism-specific contexts, report the positive effects of network collaboration on economic outcomes.

H4: Cooperation with tourism management networks has a positive effect on economic sustainability.

Social sustainability

Collaboration aligns with stakeholder theory, promoting community participation, building trust, and equitable benefit sharing. These social outcomes are particularly relevant in rural tourism contexts such as Pak Chong. Although some general research has shown mixed results, all tourism-specific research in Table 2 (e.g., Chaiyakheta & Chaiyakot, 2025) consistently supports the positive influence of networks on social sustainability.

H5: Cooperation with tourism management networks has a positive effect on social sustainability.

Environmental sustainability

Tourism networks promote ecological practices such as waste reduction and resource efficiency through shared norms, knowledge exchange, and collaborative planning, consistent with the emphasis on network theory on environmental resilience. Research by Zhang and Zhang

(2025) and Rienda et al. (2024), as well as others in Table 2 demonstrates the significant environmental benefits of continued network collaboration.

H6: Cooperation with tourism management networks has a positive effect on environmental sustainability.

Table 2 presents key empirical research on network collaboration and its impact on sustainability. While general research presents mixed results, tourism-specific research demonstrates consistently positive economic, social, and environmental impacts. This reinforces the importance of network collaboration in small-scale tourism contexts such as Pak Chong, where resource constraints and community dependence make such collaboration particularly important. In summary, Table 2 confirms that network collaboration positively contributes to all three dimensions of sustainability. Integrating theoretical perspectives and supporting evidence provides a strong foundation for hypotheses H4–H6 and highlights the structural role of network collaboration in developing sustainable outcomes for small-scale tourism enterprises.

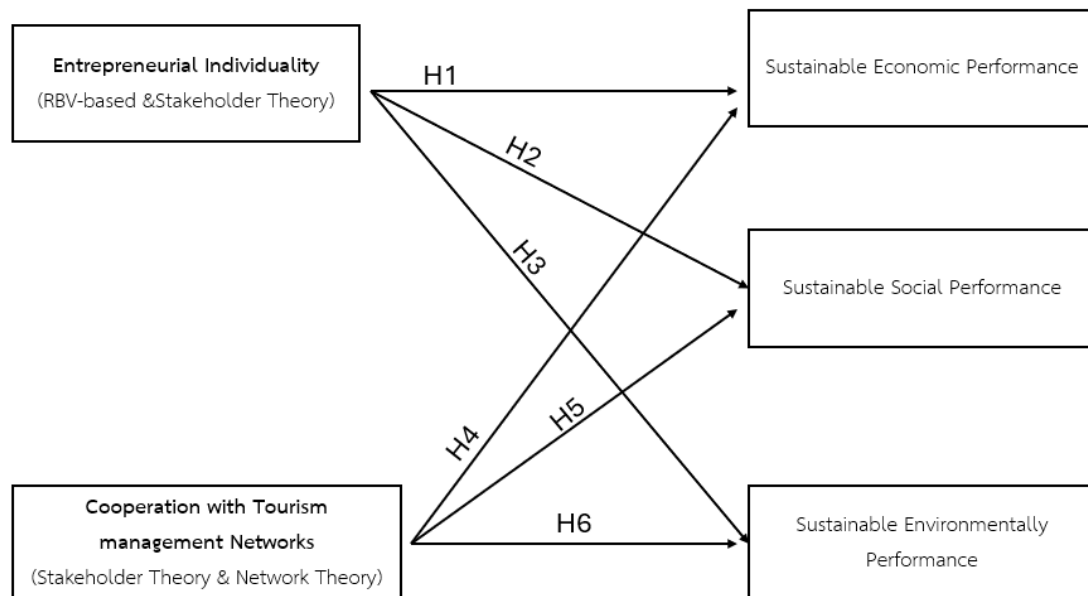


Figure 1 Conceptual framework.

Methodology

Respondents

Quantitative research is employed in this study. The target population consists of executives or owners of homestay businesses and small hotels with no more than 30 rooms in Pak Chong District, Nakhon Ratchasima Province, totaling 282 establishments (Department of Provincial Administration, Nakhon Ratchasima, 2024). Purposive sampling was utilized, under the criteria of homestay businesses or small hotels that were operational during data collection and were willing to participate in the survey. The sample size was determined using Taro Yamane's formula (Yamane, 1967), with a confidence level of 95% and a margin of error of 0.05. The final sample group included 166 participants.

According to the formula:

$$n = \frac{N}{1 + Ne^2}$$

n = Desired sample size

N = Total population size

e = Acceptable margin of error, set at 0.05

By substituting the values into the formula:

$$n = \frac{282}{1 + 282(0.05)^2} = 165.39$$

Thus, the total sample used in this study was **166** respondents.

Instruments

A structured questionnaire using a five-point Likert scale was developed based on relevant literature and divided into four sections: (1) general demographic information; (2) entrepreneurial individuality, measured across the four dimensions of self-reliance, decision-making under pressure, autonomous decision-making, and independent problem-solving; (3) cooperation with tourism management networks, measured across the three dimensions of marketing collaboration, information sharing, and joint development; and (4) sustainable performance, assessed across the three dimensions of economic, social, and environmental outcomes. Sample items include “You are able to work by yourself” (entrepreneurial self-reliance) and “Your business shares resources with the tourism network, such as providing transportation services to tourist attractions or accommodation, providing restaurants” (network information sharing). Responses were rated using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), following the Likert scale structure suggested by Joshi et al. (2015).

The content validity of the questionnaire was verified by three experts using the Index of Item-Objective Congruence (IOC) (Rovinelli & Hambleton, 1976), with values ranging from 0.60 to 0.67. A pilot test with 30 respondents was conducted to assess internal consistency reliability, yielding acceptable Cronbach’s alpha coefficients of between 0.648 and 0.874 (Cronbach, 1951). This pilot testing phase allowed for refinement of item wording and ensured the instrument’s reliability prior to the main data collection. These validation processes ensured that the constructs were measured accurately and consistently, enhancing the reliability and validity of the instrument for empirical analysis. While the pilot test provided valuable insights for item refinement, the sample size was limited, and the results should be interpreted with caution regarding generalizability.

Each primary variable in this study was assessed using multiple questionnaire items to reflect the complexity of the underlying construct and enhance measurement precision. Specifically, Entrepreneurial Individuality and Network Cooperation were each assessed using four items. Sustainable Performance was evaluated using 13 items, encompassing three dimensions: economic, social, and environmental. In total, the questionnaire comprised 21 items. The final scores for each variable were calculated based on the average of the corresponding items, aligning with the psychometric principles recommended by DeVellis (2017).

Data collection

Data were collected from August 6 to 31, 2024, using both online (Google Forms) and paper-based questionnaires. Respondents were informed of the study's objectives, confidentiality, and their right to withdraw prior to participation. Participants were asked to provide informed consent prior to completing the questionnaire. The questionnaire was self-administered and completed by owners or key decision-makers involved in the accommodation businesses. Their participation was voluntary, and all responses were collected anonymously and treated with strict confidentiality to uphold the requirements of the Human Research Ethics Committee.

Data analysis

Both descriptive and inferential statistical techniques were employed in this study. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize the demographic characteristics and key study variables. Inferential statistics were applied through multiple regression analysis to examine the effects of the independent variables on each dimension of sustainable performance.

Prior to conducting the regression analysis, the normality of data distribution was assessed using skewness and kurtosis statistics. As presented in Table 3, the skewness values ranged from -0.035 to 0.645, falling within the acceptable threshold of ± 3 , while the kurtosis values ranged from -0.022 to 0.994, remaining within the acceptable range of ± 10 , as recommended by Hair et al. (2010). These results indicate that the data represent an approximate normal distribution, thereby satisfying a key assumption required for parametric analysis.

Furthermore, all Variance Inflation Factor (VIF) values were below the commonly accepted threshold of 5, indicating no multicollinearity issues among the independent variables (Hair et al., 2010). In addition, the two independent variables—entrepreneurial individuality and cooperation with tourism management networks—were found to have no statistically significant correlation at the 0.05 level (correlation = 0.002), further confirming the absence of multicollinearity, in accordance with the criteria proposed by Stevens (2009).

To ensure consistency in interpreting the descriptive results, mean scores were categorized into five levels: very high (4.51–5.00), high (3.51–4.50), moderate (2.51–3.50), low (1.51–2.50), and very low (0.00–1.50). This classification provided a systematic and academically grounded approach

to interpreting the quantitative findings, in line with standard practices in Likert-based survey research.

Result

The analysis showed that respondents demonstrated a high level of entrepreneurial individuality ($\bar{x}$ = 3.60) and a very high level of cooperation with tourism management networks ($\bar{x}$ = 3.90).

For sustainable performance, the environmental dimension exhibited the highest mean score ($\bar{x}$ 4.09), followed by social ($\bar{x}$ = 4.02) and economic ($\bar{x}$ = 3.97) dimensions. Based on the five-level interpretation scale, all three dimensions were considered to be at a very high level. The descriptive statistics are presented in Table 3.

Table 3 Analysis results relating to entrepreneurial individuality, cooperation with tourism management networks, and the sustainable performance of homestay businesses and small hotels in Pak Chong District, Nakhon Ratchasima Province

Variable	Mean	SD	Skewness	Kurtosis
Entrepreneurial Individuality	3.60	0.34	0.645	-0.022
Network Cooperation	3.90	0.55	-0.147	-0.306
Economic Sustainable Performance	3.97	0.53	-0.635	-0.490
Social Sustainable Performance	4.02	0.64	-0.486	-0.994
Environmentally Sustainable Performance	4.09	0.65	-0.585	-0.869

The multiple regression analysis revealed that both entrepreneurial individuality and cooperation with tourism networks had statistically significant positive effects on sustainable performance across all three dimensions.

For the economic dimension, entrepreneurial individuality demonstrated a standardized coefficient of β = 0.189, significant at the 0.01 level, while cooperation with tourism networks exhibited a stronger influence (β = 0.404), also significant at the 0.01 level. The model explained 20.0% of the variance (R^2 = 0.200), indicating a moderate level of explanatory power.

In terms of the social dimension, entrepreneurial individuality remained significant (β = 0.196, significant at the 0.01 level), while cooperation with tourism networks also exerted a substantial effect (β = 0.364, significant at the 0.01 level). The model accounted for 17.2% of the variance (R^2 = 0.172).

Regarding the environmental dimension, both predictors continued to have significant positive impacts in the same direction. Entrepreneurial individuality yielded a coefficient of β = 0.190, while cooperation with tourism networks produced the greatest effect at β = 0.419; both were significant at the 0.01 level. The model explained 21.2% of the variance (R^2 = 0.212). These results provide empirical support for Hypotheses H1 through H6, as summarized in Table 4.

Table 4 Entrepreneurial individuality and cooperation with tourism management networks affecting sustainable economic, social, and environmental performance

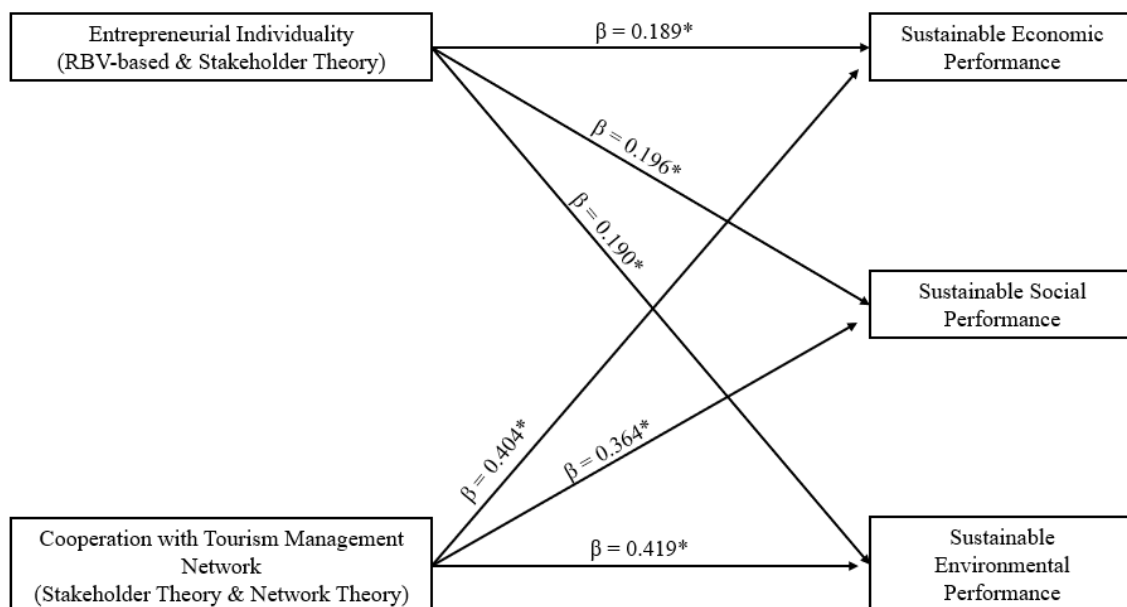
Economic Sustainability	Unstandardized Coefficients	Standardized Coefficients	P-value	VIF
Constant	1.364		.005	
Entrepreneurial individuality	.296*	.189*	.008	1.144
Cooperation with tourism management networks	.395*	.404*	.000	1.175
<i>Note.</i> F = 20.324, p = .000, R ² = .200, Adjust R ² = .190				
Social Sustainability	Unstandardized Coefficients	Standardized Coefficients	P-value	
Constant	1.049		.073	
Entrepreneurial individuality	.367*	.196*	.007	1.144
Cooperation with tourism management networks	.424*	.364*	.000	1.175
<i>Note.</i> F = 20.324, p = .000, R ² = .200, Adjust R ² = .190				
Environmental Sustainability	Unstandardized Coefficients	Standardized Coefficients	P-value	
Constant	0.832		.153	
Entrepreneurial individuality	.364*	.190*	.007	1.144
Cooperation with tourism management networks	.499*	.419*	.000	1.175
Note. F = 16.882, p = .000, R ² = .172, Adjust R ² = .161				

Although the coefficients were statistically significant, the R² values, each below 0.25 across all three models, indicate that the models could explain only a limited portion of the variance in sustainable performance. This suggests that other factors may contribute to the outcomes and should be considered in future research. Moreover, the relatively low R² values (17.2 to 21.2%) highlight the need to explore other contributing variables not captured in the current model. Potential confounding factors, such as access to government support, strength of local community networks, competitive pressure, or personal motivation, may also affect the observed relationships. Future studies should account for these elements to improve the model's explanatory power.

Although this study presents a clear and statistically supported relationship between key variables, the use of self-reported questionnaires may be susceptible to bias. Furthermore, the potential influence of unmeasured variables, such as tourism seasonality or respondent personality traits, might act as confounding factors. These considerations should be addressed in future research designs.

In addition, the relatively low standard deviations observed in the descriptive statistics may suggest limited variability in responses, potentially indicating response bias or overly homogeneous perceptions among respondents. This could affect the sensitivity of the measurement tool in capturing nuanced differences. Future studies should consider incorporating mixed methods or alternative question formats to mitigate this issue.

Finally, a path model was developed in this study to visually illustrate the structural influence of each variable, thereby enhancing conceptual clarity and providing a more comprehensive understanding of causal relationships.



Note: * indicates significance at the 0.01 level ($p < 0.01$)

Figure 2 Path model diagram showing the relationships between entrepreneurial individuality, network cooperation, and sustainable tourism performance.

Discussion and Conclusion

This study employed self-reported survey instruments, and accordingly, the findings reflect the respondents' perceived characteristics and perceptions of network cooperation, rather than directly observed behaviors or organizational practices. This distinction should be considered when interpreting the results. The results of this study confirm that entrepreneurial individuality characteristics such as self-confidence, independent decision-making, and flexibility are significantly related to sustainable economic, social, and environmental performance. These relationships are statistically supported by standardized coefficients (β) ranging from 0.189 to 0.196 ($p < 0.01$), indicating a moderate yet consistent influence across all sustainability dimensions, reinforcing the strength of regression analysis in this study. This is consistent with

Barney's (1991) RBV, which emphasizes that "unique internal resources" can create sustainable competitive advantage. These characteristics also play a role in encouraging entrepreneurs toward innovation (Neupane et al., 2025) and can be linked to the identity of the community or destination (Yin & Zhou, 2023), resulting in a distinct business image consistent with stakeholder values (Freeman, 1984) and creating trust and social capital in the long term.

To further connect theory with the empirical findings, this study describes how each sub-dimension of entrepreneurial individuality influences each sustainability outcome:

Self-reliance: The ability to operate independently enables entrepreneurs to make effective operational and financial decisions, which impact economic sustainability, and is consistent with the statistical value revealed in this study ($\beta = 0.189$).

Decision-making under pressure: Enables entrepreneurs to effectively respond to and solve problems, particularly those related to the community, while building trust and relationships with stakeholders, positively impacting social sustainability ($\beta = 0.196$).

Autonomous problem-solving and self-determination: Enables entrepreneurs to initiate environmentally friendly initiatives, such as waste reduction or the use of local ingredients, without external directives, positively impacting environmental sustainability ($\beta = 0.190$), particularly in natural tourist areas such as Pak Chong.

Meanwhile, cooperation with tourism management networks is another important mechanism that supports sustainability across all three dimensions, especially among small-scale entrepreneurs who lack resources, such as homestay businesses and small accommodations (Chatkaewnapanon & Lee, 2022; Rienda et al., 2024), where networks can help transfer knowledge, share resources, and jointly develop appropriate management approaches for the context of the area. From the social aspect, such cooperation fosters trust, shared ownership of destination identity, and equitable benefit sharing. In terms of environmental sustainability, networks may promote collective practices in eco-friendly accommodation, local sourcing, and waste reduction, aligning small businesses with conservation goals.

The results indicate that network collaboration plays an important role in the sustainability of small accommodation businesses in various dimensions. This is consistent with Mishra et al. (2025), who state that networks enhance competitiveness and market access in the economic dimension, while Zhang and Zhang (2025) found that network participation has a positive effect on natural resource management, reflecting the environmental dimension. This is consistent with Luekveerawattana (2024), who indicated that collaboration with community sectors enhances the co-ownership and management of local strengths in the social dimension.

Compared to prior studies, which often isolate either internal or external factors, this research contributes by exploring their joint influence in a distinct rural context. It highlights not only economic sustainability but also underrepresented social and environmental dimensions in small-scale tourism sectors. Overall, the results of this study reinforce that sustainable tourism business development does not rely solely on the internal potential of entrepreneurs but also

requires cooperation with partners in the tourism ecosystem, an important mechanism for driving businesses to grow steadily in the long term.

Implications

Theoretical contributions

This study advances theoretical integration by combining the RBV, stakeholder theory, and network theory to explain how perceived entrepreneurial traits and cooperative behaviors contribute to sustainability outcomes. Unlike most prior studies that examine these factors in isolation or focus on a single domain, this research addresses economic, social, and environmental sustainability simultaneously within the underexplored context of small-scale rural tourism, exemplified by Pak Chong.

In particular, the RBV emphasizes internal characteristics, such as trust and autonomy, as valuable and inimitable resources that drive operational efficiency and innovation, key determinants of economic sustainability. Stakeholder theory emphasizes responsiveness to community and stakeholder expectations, fostering social trust and the long-term distribution of benefits. Network theory explains how collaboration within tourism networks promotes knowledge sharing, co-governance, and collaborative environmental action.

One key theoretical insight lies in the separation of sustainability into three distinct but interconnected dimensions. This separation allows for a clearer understanding of how each theory aligns with its respective outcomes: the RBV and economic efficiency, stakeholder theory and social legitimacy, and network theory and environmental stewardship. It also allows researchers to better explore the mechanisms through which internal capabilities and external collaboration contribute to sustainability development.

This study advances existing theory and provides a framework for future research to explore additional contextual factors or develop targeted strategies for different sustainability challenges.

Furthermore, this study advances theoretical advancements by demonstrating how traditional conceptual frameworks, such as the RBV, stakeholder theory, and network theory, can be effectively applied to explain sustainability in the context of small-scale rural tourism, which has been overlooked. This study improves the explanatory scope of each framework. By aligning each theory with a specific sustainability dimension and integrating it into a unified analytical model, future researchers may apply this integrated model to sustainability studies in other tourism destinations, extend the application of the theory to different cultural contexts, or incorporate additional variables such as digital innovation or climate resilience. Thus, this study provides a conceptual foundation for further theoretical exploration and practical application in the evolving field of sustainable entrepreneurship.

Recommendations for entrepreneurial application

Entrepreneurs are encouraged to leverage their individuality in brand development by crafting narratives reflecting personal identity and offering flexible, user-friendly services aligning with customer needs. In addition, continuous learning, managerial skill enhancement, and creative thinking are essential for achieving sustainable competitive advantage and long-term business success.

Policy recommendations

Government agencies should create platforms for knowledge exchange and support the formation of local business networks. They should also develop practical tools and indicators for monitoring long-term sustainability outcomes. These tools may include longitudinal perception surveys, in-depth qualitative interviews, and community-based feedback mechanisms, offering richer insights beyond cross-sectional data.

In the case of Pak Chong, policies may incorporate environmental sensitivity scoring considering the proximity to protected forests, seasonality of tourism, and reliance on local labor to tailor sustainability strategies more effectively. Indicators should capture nuanced sub-dimensions such as trust within networks, the frequency of collaboration among businesses, and the perceived value derived from partnerships. Capturing these dimensions enables more grounded and actionable policy interventions, including tools for assessing the quality of cooperation and relationships with local communities.

Policymakers should also define measurable outputs of network-building initiatives, such as an increase in joint marketing activities, improvements in stakeholder satisfaction, and enhanced environmental performance, to better assess intervention effectiveness.

Limitations and Suggestions for Future Research

Research limitations

This study relies on self-reported data, which may present limitations in data reliability due to potential response biases, particularly the tendency to present oneself in a favorable light (social desirability bias) and acquiescence effects. In addition, several variables exhibit relatively low standard deviations, which may indicate limited variability in responses. These factors should be considered when interpreting the study's findings.

From an analytical perspective, the relatively low R^2 values (ranging from 17.2% to 21.2%) suggest that sustainable performance outcomes may be influenced by other unmeasured or uncontrolled variables not included in this study.

Contextual limitations are also present. The purposive sampling employed in this study is limited to entrepreneurs in Pak Chong District, Nakhon Ratchasima Province, an area characterized by distinct geographic and socio-economic features. As a result, caution is warranted when generalizing the findings to other regions with different contextual characteristics.

Although the questionnaire distinguished between homestay and small hotel businesses, the data did not clearly identify the level of service provided, such as whether the establishments were positioned as budget or luxury accommodations. Moreover, time and budgetary constraints limited the implementation of full stratified sampling, especially in a setting where responses depended on voluntary participation.

Furthermore, the population definition grouped homestay and small hotel operators under a single category. While this approach reflects the composition of small-scale tourism businesses in the study area, it may limit the depth of comparative analysis between the two business types.

Recommendations for future research

Future research may adopt qualitative methods to explore the psychological dimensions of entrepreneurship, such as creativity, adaptability, and resilience, as well as longitudinal designs to capture how entrepreneurs adjust strategies over time in response to environmental and market dynamics.

Comparative studies across contexts (e.g., urban vs. rural, homestays vs. small hotels) can reveal differences in the sustainability mechanisms shaped by governance, stakeholder engagement, and destination characteristics.

Further studies should clearly distinguish between service tiers (e.g., budget vs. luxury accommodation) and employ stratified sampling by business type, size, or location to ensure representativeness and enable meaningful comparisons. While this study groups homestays and small hotels together, future research could analyze them separately to identify operational differences.

Expanding the geographic scope to include diverse tourism regions would enhance generalizability. In addition, incorporating other relevant variables—such as government support, community participation, or environmental knowledge—could improve explanatory power and offer deeper insights into sustainable tourism performance.

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