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**SOCIAL MEDIA MARKETING FOR SUSTAINABILITY
OF COMMUNITY-BASED TOURISM ENTERPRISES IN
VIETNAM**

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LIST OF ACRONYMS AND ABBREVIATIONS

CBT: Community - based tourism
CBTEs: Community - based tourism enterprises
CBE: Community-based enterprise
SMEs: Small and medium enterprises
TAM: The Technology Acceptance Model
UTAUT: The Unified Theory of Acceptance and Use of Technology
IDT: Innovation Diffusion Theory
RBV: The Resource-Based View
CRED: The Center for Rural Economic Development
UN-SDGs: United Nations Sustainable Development Goals
NGOs: Non-governmental organizations
UNWTO: the United Nations World Tourism Organization
WTO: World Trade Organisation
GDP: Gross Domestic Product
GRI: Global Reporting Initiative
IIRC: International Integrated Reporting Council
NVG: National Voluntary Guidelines
EUNFRD: The European Union Non-Financial Reporting Directive
CDP: The Carbon Disclosure Project
OECD: Principles of Corporate Governance
ISD: Indicators of Sustainable Development
SMIR: The Sustainable Manufacturing Indicator Repository
SNV: Netherlands Development Organization
AECI: Spanish Development Agency
IUCN: International Union for Conservation of Nature
FFI: Fauna and Flora International
WWF: World Wildlife Fund/World Wide Fund for Nature
CRED: The Center for Rural Economic Development
MOCST: The Ministry of Culture, Sports and Tourism
VNAT: The Vietnam National Authority of Tourism
MOFA: Vietnam's Ministry of Foreign Affairs
EFA: Exploratory factor analysis

PLS-SEM: Partial least square- structural equation modelling

CB-SEM: Covariance-based structural equation modelling

AVE: Average variance extracted

PCA: Principal Component Analysis

KMO: The Kaiser–Meyer–Olkin

VIF: Multicollinearity Statistic

HOCs: Higher-order constructs

LOCs: Lower-order constructs

CR: Composite Reliability

AVE: Average variance extracted

SRMR: The standardized root mean square residual

ABSTRACT

This research is designed to examine three key research questions concerning the antecedents, outcomes, and moderators of social media marketing adoption in CBTEs in Vietnam, thereby enabling the application of these findings to other contexts. The research employed a sequential exploratory mixed-methods study approach. First, qualitative research investigates the variables and assessment indicators of social media marketing adoption, sustainability performance, and local government stakeholders, based on the perceptions and experiences of 14 owners of CBTEs in Vietnam. The responses collected from a qualitative study, which included semi-structured interviews, were analysed using the NVivo 15 program. The results of the qualitative study's thematic analysis were connected with the content analysis of previous research. Second, a quantitative phase was carried out using SmartPLS software to validate and test the proposed model. The survey instrument's reliability and validity were confirmed using pilot testing. An online questionnaire was disseminated through Google Forms to 377 CBTE owners in Vietnam, and the data were analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to investigate the hypothesised correlations.

The findings showed that several factors, including perceived ease of use, cost, compatibility, facilitating conditions, and interactivity, positively influence CBTEs' adoption of social media marketing. The outcomes also highlighted a significant positive influence of adopting social media marketing on the sustainability performance of CBTEs. In addition, the most significant contribution is the role of the moderator of local authority stakeholders in promoting the connection between social media marketing adoption and sustainability performance of CBTEs. The results emphasize both statistically significant and non-significant connections among variables, with partial support observed for all hypotheses. Furthermore, the findings of this study might function as a foundational framework for further study in the domain of CBT within developing countries. This research advances the academic literature by addressing a contextual gap in CBTE studies and offers practical recommendations for policymakers, tourism stakeholders, and CBTE owners in developing countries regarding the planning and implementation of social media marketing strategies to accomplish their long-term development goals within the CBT sector. A comprehensive model for this research, incorporating the antecedents, outcomes, and moderators of social media marketing adoption, is also proposed to advance digital marketing research within the tourism industry.

Keywords: Social media marketing adoption; Community-based tourism enterprises; Local authority stakeholders; Sustainability performance; Community development

1 INTRODUCTION

1.1. Background of the Study

Tourism, as one of the world's biggest and quickest-growing industries, has become increasingly significant across global regions, particularly within developing economies (Hall and Richards, 2000; Tan et al, 2022). The sector serves as a major driver of income generation, rural economic diversification, and local empowerment, while simultaneously enhancing community awareness of cultural and environmental resources (Mann, 2014; Tan et al, 2022). Despite these advantages, the emergence of mass tourism has received considerable criticism for exacerbating local challenges, including environmental damage, biodiversity loss, cultural erosion, and the disruption of social structures (Fennell, 2020). Therefore, scholars advocate for tourism models that are socially equitable and environmentally sustainable, prioritizing the welfare, needs, and active participation of local communities (Kasim, 2006). Within these evolving challenges, community-based tourism (CBT) has emerged as a greener choice to mass tourism, emphasizing local control, cultural appropriateness, community empowerment, and economic advantages for host populations (Manyara and Jones, 2007; Tan et al, 2018). This strategy supports global efforts to create an inclusive and sustainable tourism industry and CBT's emphasis on local participation and satisfying the growing demand for sustainable vacations (Giampiccoli et al, 2020; Manyara and Jones, 2007; Tan et al, 2022).

Since its emergence in the early 1980s, CBT has been widely recognized as an alternative model of tourism development that promotes sustainable and inclusive growth through community participation (Manyara and Jones, 2007; Ngo et al, 2018). It is regarded as an economically, socially, and environmentally sustainable strategy that fosters learning and meaningful engagement between visitors and local communities (Mayaka, 2015). CBT also supports the goal of several United Nations Sustainable Development Goals (UN-SDGs), particularly poverty reduction, environmental protection, and inclusive economic development in rural locations in developing nations (Imbaya et al, 2019; Kline et al, 2019; Saarinen and Rogerson, 2017). In addition, CBT integrates other sustainable tourism forms, such as eco-tourism, volunteer tourism, and pro-poor tourism, thereby supporting biodiversity conservation, environmental education, and community development as a key driver of sustainable tourism transformation (Kline et al, 2019; Truong et al, 2014).

Current research emphasizes that CBT is essential for sustainable tourism by empowering local populations, maintaining cultural heritage, and aiding in poverty alleviation (Manyara

and Jones, 2007; Ngo et al, 2018). Nonetheless, studies highlight considerable obstacles in the execution, development, and maintenance of CBT programs, including limitations in financial support, managerial capabilities, and market accessibility (Ditta-Apichai et al, 2020; Kontogeorgopoulos et al, 2014). Rural populations in emerging nations persistently address poverty as their primary issue (Rodríguez-Pose and Hardy, 2015). A critical determinant of CBT success is the collection of local resources (Ashley and Mitchell, 2009; Spenceley and Meyer, 2012), particularly by facilitating access to significant markets for new businesses (Saarinen and Rogerson, 2017). Consequently, several programs have been implemented to facilitate the growth of small businesses, aiming to improve their overall socioeconomic conditions (Pradhan and Samanta, 2022). By promoting micro-entrepreneurship and enabling community engagement, CBT becomes a driver for tourism advancement and sustainable development (Ditta-Apichai et al, 2020; Saarinen and Rogerson, 2017).

The topic of CBTEs has been discussed in multiple previous reviews of the CBT context (Manyara and Jones, 2007; Mayaka, 2015; Ngo et al, 2020). A CBTE indicates an enterprise that is owned, founded, and operated by individuals or groups sharing common goals within the community where it is located, and meeting the following criteria: the community initiates the provision of services or products using local assets and resources, and the community benefits from tourism activities (Manyara and Jones, 2007; Mayaka, 2015; Ngo et al, 2020). CBTEs consist of local ownership and community administration, both of which are essential components of SMEs (Ngo et al, 2018). Due to these qualities, the benefits to the community as a whole can be more effectively realized, and the business's capacity for self-sustainability can be enhanced. Both non-financial and financial outcomes contribute positively to the community (Malatji and Mtapuri, 2012; Mayaka, 2015). Concerning financial advantages, the local community may utilize CBTEs to enhance livelihoods, boost income, generate employment opportunities, and establish a source of community funding (Torres et al, 2011).

The theoretical framework of CBTEs has rapidly developed in developing countries across Africa, Latin America, and Asia to encompass each possible type of CBT (Ngo et al, 2019). CBTEs are regarded as a highly promising strategy for fostering sustainable local development (Ngo et al, 2018). In remote regions of developing nations, CBTEs can help alleviate poverty (Pradhan and Samanta, 2022; Teerakul et al, 2012), preserve and responsibly use resources from natural (Ambrose-Oji et al, 2015), increase a society's social capital (Cabras and Mount, 2017), reduce inequalities (Nanda and Samanta, 2018), promote community identity, equity, and development (Buratti et al, 2022; Pradhan and Samanta,

2022). Additionally, CBTEs may contribute to preserving a region's natural biodiversity while also providing a sustainable way of life, which improves the region's socioeconomic status and the environment (Pradhan and Samanta, 2022; Salafsky et al, 2001).

1.2. Problem statement

The main challenge examined in this research is that the implementation of CBTEs is still not reaching the expected potential concerning the objectives of sustainable tourism performance (Ngo et al, 2018). Although promoted for their potential to generate economic benefits for local communities through tourism, CBTEs rarely attain a sustainable financial future (Goodwin and Santilli, 2009; Ngo et al, 2018; Weaver, 2010). The shortcomings of CBTEs can be explained by multiple interconnected factors. At the operational level, numerous studies identify factors such as financial instability, insufficient management, ineffective governance, and limited marketing capabilities as primary contributors to low performance in developing countries (Goodwin and Santilli, 2009; Mielke, 2012; Muckosy and Mitchell, 2008). Moreover, major contributing variables at the managerial level include unequal power relations within communities and an excessive reliance on external support (Van der Duim and Caalders, 2013; Zapata et al, 2013). When inadequately managed, CBTEs may replicate the same adverse effects typically related to top-down, mass tourism models. In numerous Asian contexts, for example, CBTE initiatives have been observed to cause community conflicts, cultural tensions, disappointment, and progressively negative perceptions of tourism (Kontogeorgopoulos et al, 2015; Taylor, 2017).

The sustainability challenge faced by CBTEs is an increasingly common problem that could be addressed through the implementation of effective social media marketing strategies (Lee et al, 2024; Ngo et al, 2019). Digital marketing, including social media marketing, is essential for the long-term success of CBTEs, as well as for various other management considerations (Beetson et al, 2020; Ngo et al, 2020; Sinh et al, 2024a) for diverse reasons. First, the majority of CBTEs are small enterprises, generally operated by private households or the community, situated in regions with restricted development (Ngo et al, 2018). The local people serve as the manager, entrepreneur, and principal benefactor of these enterprises (Ngo et al, 2020; Sinh et al, 2024a). Therefore, social media marketing is optimal for businesses with limited marketing budgets (Sinh et al, 2024a; Tan et al, 2018). Second, market-generated material, including information, images, and videos (Tan et al, 2018), can be simply generated and shared among mobile users (Ditta-Apichai et al, 2020). Consequently, social media marketing is a suitable means for promoting the organization's most significant characteristics (Kiráľová

and Pavlíčka, 2015). Thirdly, the information on social media platforms might be extensively customized, facilitating the exchange of feedback and comments (Tan et al, 2018). This helps locals to support their businesses and manage tourist interactions while offering independence and a large income share (Ditta-Apichai et al, 2020). The advantages of social media for destinations include increased brand awareness and involvement and decreased promotional costs (Berhanu and Raj, 2024); promotion by word of mouth; social acceptance, trust, and validation (Oyewobi et al, 2021; Tan et al, 2018).

The adoption of social media marketing effectively supports tourism SMEs in achieving sustained long-term performance (Berhanu and Raj, 2024; Borah et al, 2022; Sharma and Sharma, 2024). Previous literature suggests that tourism SMEs should adopt social media technologies to respond to globalization and digital innovations, ensuring sustainable business practices in the modern era (Deb et al, 2024; Sharma and Sharma, 2024). In this context, assessing social media adoption to promote the comprehensive development of CBTEs is crucial, as tourism SMEs are likely to use it if they consider it as cost-efficient, user-friendly, and compatible (Berhanu and Raj, 2024; Çalışkan et al, 2025; Deb et al, 2024). The current studies mostly emphasise the adoption of social media marketing and sustainable outcomes within SME tourism in general (Deb et al, 2024; El-Gohary, 2012; Sharma and Sharma, 2024); however, none of the research has precisely examined this association in the context of CBTEs. Previous research indicates that social media marketing demonstrates a significant impact on CBTEs using qualitative research (Ngo et al, 2020; Rastegar and Zarezadeh, 2020). The present literature lacks empirically validated measurement instruments and a theoretically founded approach in CBTE sectors, especially in the context of developing nations. Therefore, this research expands the practical application of social media marketing adoption by highlighting its crucial role in driving the long-term success of CBTEs.

Moreover, stakeholder engagement and collaborations are often identified as indicators of CBTE performance and are extensively analyzed in scholarly studies (Ngo et al, 2019; Ngo et al, 2018). Establishing marketing collaborations with external stakeholders is essential for the sustained success of CBTEs (Ngo et al, 2018). In reaction, collaborations with external stakeholders have been utilized to assist CBTEs in overcoming marketing problems and, consequently, achieving long-term success (Ngo et al, 2019). The primary stakeholders of CBTEs are tour operators, non-governmental organisations (NGOs), community groups, social institutions, and CBTE networks (Ngo et al, 2019). Therefore, many studies have examined the possible stakeholders in CBTE development, along with their marketing

assistance (Dodds et al, 2018; Ngo et al, 2019; Ngo et al, 2018). Marketing collaborations would provide CBTEs with strategic advantages and support the business's marketing weaknesses (Ngo et al, 2019; Ngo et al, 2018). Consequently, engaging with tourism stakeholders to promote a CBTE can improve sustainability performance (Duim and Caalders, 2008; Ngo et al, 2018; Snyman, 2014). As a result, the connection between social media adoption, stakeholders, and sustainability performance is obvious. Furthermore, to the authors' knowledge, no study has examined the moderating effect of stakeholder collaboration on the association between social media marketing adoption and sustainability performance through a quantitative methodology in the CBTEs context.

The previously mentioned problems should be resolved to foster the long-term sustainability of CBTE. This study addressed key environmental, social, and economic performance concerns using an exploratory sequential mixed-methods approach. The existing evaluations concentrate on social media marketing and sustainability outcomes in SME tourism broadly (Deb et al, 2024; El-Gohary, 2012; Sharma and Sharma, 2024), although none have specifically investigated the connection in the CBTEs context. Furthermore, the adoption of social media marketing and sustainability performance is a contextually complex, multidimensional phenomenon supporting contextual validity (Borah et al, 2022; Chatterjee and Kar, 2020; Tajudeen et al, 2018). Consequently, the researcher reviewed existing literature to identify study variables and research gaps, then conducted qualitative interviews with CBTE owners in Vietnam to gain deeper insights and validate the contextual relevance of social media marketing adoption and sustainability performance. After gathering quantitative results from surveys, the study tests the proposed research model's structural relationship. Consequently, this study applies social media marketing adoption to CBTE success, expanding the practical perspective.

1.3. Research context

Vietnam has seen a significant rise in CBTEs due to tourist demand for ethical and sustainable tourism. According to an AC Nielsen survey commissioned by the Netherlands development organization (SNV) in 2010, it is noted that 84% of visitors visiting Vietnam are interested in attractions, while 65% are interested in experiencing local culture and heritage (ESRT, 2013). However, CBT is presently in its beginning stages in Vietnam. Anti-poverty objectives are reflected in the design of CBT initiatives, which are developed in close agreement with government regulations (Truong, 2013). The ability of CBTEs to fulfil economic, political, and cultural goals is nevertheless uncertain (Tan et al, 2022). This responsibility reinforces

the relevance and societal impact of CBTE research while attempting to bridge the gap between practice and theory in tourism studies (Dredge et al, 2013).

The Vietnamese government has begun to actively support digital technology for CBTEs through a number of policies, training programmes, platform development, and collaborations. For example, the Center for Rural Economic Development (CRED) trained over 80 individuals from the Dao, Giay, H'Mong, and Nung ethnic groups in Sa Pa on online marketing and social media, enabling them to promote their tourism services online (CRED, 2022). However, the sustainability challenge among CBTEs is a general challenge that needs to be addressed by the implementation of effective social media marketing techniques (Lee et al, 2024; Ngo et al, 2019). First, an insufficiency in digital marketing skills exists among local people and among local businesses (Beetson et al, 2020; Sinh et al, 2024a). This is due to the popularity of CBTEs as small-scale ventures, often managed by community members or individual households, and situated in regions characterized by limited development (Ngo et al, 2020; Truong et al, 2014). Furthermore, additional external challenges influence of social media marketing applications by CBTEs. For example, isolated rural and remote areas within developing nations often lack essential infrastructure such as internet access, limiting their ability to reach target markets due to physical and cultural isolation (Ngo et al, 2020; Sinh et al, 2024a). These challenges prevent CBTEs from successfully expanding their enterprises. Therefore, further research should be conducted to resolve the aforementioned challenges, thereby enhancing the long-term achievement of CBTE within the Vietnamese context.

1.4. Research questions

The research is to critically examine the adoption of social media marketing aimed at enhancing the sustainability performance of CBTEs in developing regions. In particular, the collaborations among stakeholders as moderators are examined and discussed to promote the development, analysis, and presentation of a new conceptual framework. It also offers managerial recommendations regarding the implementation of business sustainability for CBTEs. The research questions are explained in greater detail as follows:

RQ1: What are the key factors that affect the adoption of social media marketing for the sustainability of CBTEs in developing countries?

RQ2: What influence does social media marketing adoption have on the sustainability performance of community-based tourism enterprises (CBTEs)?

RQ3: Who are the stakeholder collaborations of CBTEs in developing countries that potentially support the relationship between social media marketing adoption and the sustainability performance of CBTEs?

1.5. Research objectives

This study evaluates the measurement of social media marketing adoption and sustainability performance. Additionally, stakeholder collaborations moderate the connection between social media marketing and the sustainability performance of CBTEs. The primary objective of this research, as determined by the research question, was to formulate a sustainability performance model by integrating social media marketing adoption, supported by stakeholder collaborations within the context of CBTEs in Vietnam. There are four main research objectives:

RO1: To identify the key factors that affect the adoption of social media marketing for the sustainability of CBTEs in developing countries.

RO2: To examine the impact of social media marketing adoption on the sustainability performance of CBTEs.

RO3: To explore the stakeholders who collaborate to strengthen the relationship between social media marketing adoption and the sustainability performance of CBTEs.

RO4: To assess the moderating role of stakeholder collaboration on the relationship between social media marketing adoption and the sustainability performance of CBTEs.

1.6. Scope of the study

This study was confined to a particular context, with defined variables, participants, and a specified timeframe to ensure effective supervision. As the study sought to develop a sustainability performance framework within a CBT context, the study was carried out in CBTEs in Vietnam. The variables that were investigated in this research were the adoption of social media marketing, sustainability performance, and stakeholder collaboration. Despite the significance of adopting social media marketing in enhancing sustainability performance within tourism SMEs, there is a gap in the CBTEs' research. The study conducted a complete examination of the variables. Following the literature, a qualitative research was carried out on a limited measures with CBTE owners, complemented by an extensive quantitative survey to gather owners' perceptions of the CBTEs in Vietnam.

In addition, the study gathered cross-sectional data from the CBTEs located in the mountainous regions of Northern Vietnam, where the majority of CBTEs are situated. The semi-structured interviews were completed in October 2024, and the pilot and final survey were collected over three months, from January 2025 to March 2025. As a result, the structural relationships among the constructs of the proposed framework were examined, and validity was confirmed using the application of the PLS-SEM analysis method.

1.7. Significance of the study

This research provides a valuable contribution to the growing body of knowledge regarding social media marketing adoption and its effect on the sustainability performance of the tourism industry. By addressing current gaps in the literature, this research enhances knowledge about the digital marketing concept and organizational sustainability. Furthermore, this research makes the following three contributions:

1.7.1. Theoretical significance

This research enhances the existing understanding of social media marketing adoption and sustainability performance by highlighting the requirement for more investigation into the moderating influence of stakeholder participation. This study establishes a framework for research focused on the adoption of social media marketing, sustainability performance, and the moderating role of collaboration among stakeholders. The theoretical contributions of these findings encompass a more comprehensive analysis of the intricate interrelationship between the antecedents, moderators, and outcomes of social media adoption in CBTEs. The primary theoretical contributions of these findings are summarized below:

Firstly, the empirical investigation proposed a novel research framework based on the connection and combination of TAM theory with other common theories, namely UTAUT, IDT, and Interactivity theory. The results support the findings and address the limited implementation of other researchers in the tourism sector (Chatterjee and Kar, 2020; Dahnili et al, 2014; El-Gohary, 2012; Tan et al, 2018). In general, the framework has the potential to explain 60.7% of the variance in the elements that influence social media marketing adoption. Consequently, it is expected that the framework will be useful as a valuable digital resource for tourism and marketing researchers who are interested in implementing social media marketing in other developing nations.

Secondly, the relevance of social media marketing in CBT and CBTEs remains a new research domain for scholars and professionals. Previous literature concentrated on social media

marketing adoption and sustainable economic outcomes in SME tourism generally (Deb et al, 2024; El-Gohary, 2012; Sharma and Sharma, 2024). This study significantly supports the limited body of literature on CBT and digital marketing from developing nations by providing clarity on social media marketing adoption (Mkono, 2016; Ngo et al, 2020).

Thirdly, validation of the linked relationships: The findings contribute empirical validity to the theoretical framework's hypothesised interconnection (Chatterjee and Kar, 2020; Deb et al, 2024). In particular, the validation of these theoretical connections within a tourism context is dependent on the fact that the incorporation of social media marketing has a positive effect on the long-term success of CBTEs.

Fourthly, the local authority stakeholders as a moderator: this research empirically extends and examines the moderation of local authority stakeholders in influencing the association between social media marketing adoption and the sustainability performance of CBTEs, thereby contributing to the literature gap (Ngo et al, 2018; Snyman, 2014). Theoretically, in the scope of CBTE collaborative marketing literature, it supports the comprehension of the engagement of multiple stakeholders (Ngo et al, 2018).

1.7.2. Practical significance

Further to these theoretical contributions, the results have numerous implications for policymakers, stakeholders, managers, and owners of CBTEs who participate in social media marketing practices.

Firstly, the utilization of social media marketing platforms like Facebook, WhatsApp, and Instagram has become a significant and effective technique for businesses in marketing. This study provides insights for CBTE owners and managers, indicating that the sustainability performance of their organization can be improved by strengthening social media marketing skills. Therefore, significant social media marketing skills (including content writing, graphic design, and video production) are required to manage social media platforms in CBTEs in developing countries, which ultimately impacts sustainability performance.

Secondly, the established antecedents of social media marketing adoption offer policymakers a more comprehensive understanding, allowing them to concentrate on important factors (compatibility, perceived ease of use, facilitating conditions, interaction) that have a positive relationship with social media marketing adoption. Considering the significance of these elements, government departments, NGOs, and other institutions associated with CBTEs can gain useful insights into the elements influencing social media marketing adoption, thereby

informing future policies, plans, and strategies in Vietnam and comparable countries. In addition, costs are critical factors influencing social media marketing adoption; thus, NGOs and governmental agencies can offer CBTE owners appropriate training in content writing, graphic design, and video production to enhance their skills. This helps them build social marketing strategies and skills cost-effectively.

Thirdly, local authority stakeholders play an essential moderating part in promoting the connection between social media marketing adoption and sustainability performance. The participation of the CBTE cooperative is crucial during the early phases of the CBTEs, when they remain vulnerable to the exploitative purposes of the private sector (Ngo et al, 2018). Local governments should improve digital infrastructure in rural areas to ensure CBTEs have reliable internet access for online marketing and broader market reach. Policymakers must also prioritize digital training programs, in collaboration with NGOs and educational institutions, to build CBTE owners' skills in social media, content creation, and branding. Additionally, authorities should adopt a facilitative governance approach, acting as enablers by providing resources, platforms, and supportive policies that foster innovation and local autonomy.

Fourthly, this study was situated within the framework of CBT and conducted in a mountainous region in northern Vietnam. The significance of this context is essential because the concept of CBT has become increasingly prevalent in the less developed nations of Africa, Latin America, and Asia (Kontogeorgopoulos et al, 2014; Ngo et al, 2018). Therefore, this empirical application of theoretical principles enhances the comprehension of the role of social media marketing adoption on CBTEs in a relevant and practical context, specifically the Southeast Asian region.

1.8. Key themes of the study

This research is organised based on the primary themes of CBT, CBTE, sustainability performance, social media marketing adoption, and stakeholder collaboration. The provided definitions serve as a framework for analyzing the results of the evaluated hypotheses and prevent potential confusion of the concepts employed.

Community-based tourism (CBT)

Community-based tourism (CBT) is commonly defined as a sustainable tourism model in which a community utilizes its own local resources and maintains collective ownership and control to achieve outcomes that the community itself determines (Mayaka, 2015; Murphy,

1985). It is widely regarded as a socially, economically, and environmentally sustainable approach that not only supports community wellbeing but also enhances visitors' understanding of local culture and ways of life (Mayaka, 2015; Suansri, 2003). CBT is becoming more recognized as a strategy for poverty alleviation, offering authentic cultural and natural experiences while aiming to improve local living standards and preserve cultural and environmental heritage (Manyara and Jones, 2007; Suansri, 2003).

Community-based tourism enterprises (CBTEs)

A CBTE is referred to as a micro-scale enterprise situated in a remote or rural region of a less-developed nation, distinguished by several essential characteristics: It is managed, owned, and operated by the local people, supporting that community (Manyara and Jones, 2007; Ngo et al, 2020). A CBTE might appear as a community-operated enterprise or an initiative of a community household that contributes to the whole community (Ngo et al, 2020). CBTEs have expanded in underdeveloped nations as a means of community transformation by promoting empowerment, alleviating poverty, enhancing income, diversifying livelihoods, maintaining culture, and safeguarding the environment. Collectively, these results facilitate the sustainable advancement of tourism in their respective destinations (Manyara and Jones, 2007; Mayaka, 2015; Ngo et al, 2020).

Sustainability performance

Sustainability performance refers to performance that takes into consideration economic, social, and environmental factors over a long period of time (Castellani and Sala, 2010). CBTEs achieve long-term success when they balance local economic benefits with cultural and environmental preservation (Carr et al, 2016). The economic advantages are a crucial criterion for CBTEs to attain long-term business success (Manyara and Jones, 2007; Ngo et al, 2019). Annual visitor numbers, business revenues and profits, seasons and years of operation, and the awareness of market and consumer demand provide sufficient indicators of the economic benefits of a CBTE (Collins and Snel, 2012; Lemelin et al, 2015). However, CBTE development needs to combine financial success with community well-being. Cultural erosion, indigenous value commercialization, external colonialism, benefit leakages, and community-inner tensions should be considered in CBTE programs (Ngo et al, 2019; Stone and Stone, 2011; Taylor, 2017). Therefore, most past studies on tourism sustainability focused on three dimensions (economic performance, environmental performance, and social-cultural performance) of sustainability that are measured to justify sustainable tourism organisations (Borah et al, 2022; Oyewobi et al, 2021).

Social media marketing adoption

Social media marketing is a relatively recent business approach focused on promoting products, ideas, and services through modern social media platforms (Lal et al, 2020). This definition has been widely adopted in subsequent studies because it is both simple and comprehensive, capturing the fundamental characteristics of social media without unnecessary complexity (Ahmad et al, 2019). It is believed that social media marketing adoption has a significant influence on the accomplishment of CBTE sustainability (Ngo et al, 2019; Thananusak and Suriyankietkaew, 2023). Social media marketing strategies in CBTEs should balance economic goals with non-economic objectives, ensuring both business success and community development (Ngo et al, 2019; Ngo et al, 2020). This is actually important for CBTEs who want to achieve both.

Stakeholder collaboration

Stakeholders refer to individuals and groups who have the ability to impact and also be influenced by the achievement of the goals of an organization (Neville and Menguc, 2006). Tour operators, non-governmental organizations (NGOs), community associations, social institutions, and CBTE networks constitute the essential stakeholders of CBTEs (Dodds et al, 2018; Ngo et al, 2018). The involvement of numerous stakeholders is vital to the growth of CBTEs, especially in social media marketing, as rural communities in peripheral areas of less-developed countries often have limited knowledge of the tourism market and visitor expectations (Muckosy and Mitchell, 2008; Truong et al, 2014). Therefore, engagement with external stakeholders provides CBTEs with critical collaborative advantages while mitigating deficiencies in managerial expertise and financial capacity (Moscardo, 2008).

1.9. Dissertation structure

Figure 1 explains that the doctoral dissertation is divided into seven chapters. The following is a summary of each chapter:

Chapter 1: Introduction

This chapter summarizes the background and problem of the research, emphatically outlining the research problem, questions, and objectives. It further defines the scope of the dissertation and highlights its practical and theoretical significance. The chapter concludes with an explanation of the dissertation structure.

Chapter 2: Literature Review

This chapter critically evaluates the present body of knowledge on social media marketing adoption, sustainability performance, and stakeholder collaboration. It discusses key theoretical frameworks underpinning the study, including the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), Innovation Diffusion Theory (IDT), and Interactivity Theory. The chapter also includes a summary of CBT and CBTEs in both the global and Vietnamese contexts. Finally, it presents the conceptual research model and hypotheses.

Chapter 3: Research Methodology

This chapter contains the research philosophy, design, and methodological approach, encompassing both qualitative and quantitative methods. It explains the data collection procedures, including the design of interview questions, questionnaire development, population and sampling techniques, and data analysis methods employed to test the research hypotheses.

Chapter 4: Results and Discussion

This chapter outlines the findings from both the qualitative and quantitative phases of the research. It provides a comprehensive discussion and interpretation of the findings in relation to the proposed hypotheses and the existing literature.

Chapter 5: New scientific results

This chapter highlights the novel scientific contributions and theoretical advancements derived from the study, emphasizing its originality and value to the academic field.

Chapter 6: Conclusion and future research directions

This chapter summarizes the key theoretical and practical contributions of the study and discusses its policy and managerial implications. It also highlights the limitations of the research and outlines directions for future studies.

Chapter 7: Summary

The final chapter highlights the research's objectives, methodology, and key findings, and proposes directions for future research to further advance understanding in the field.

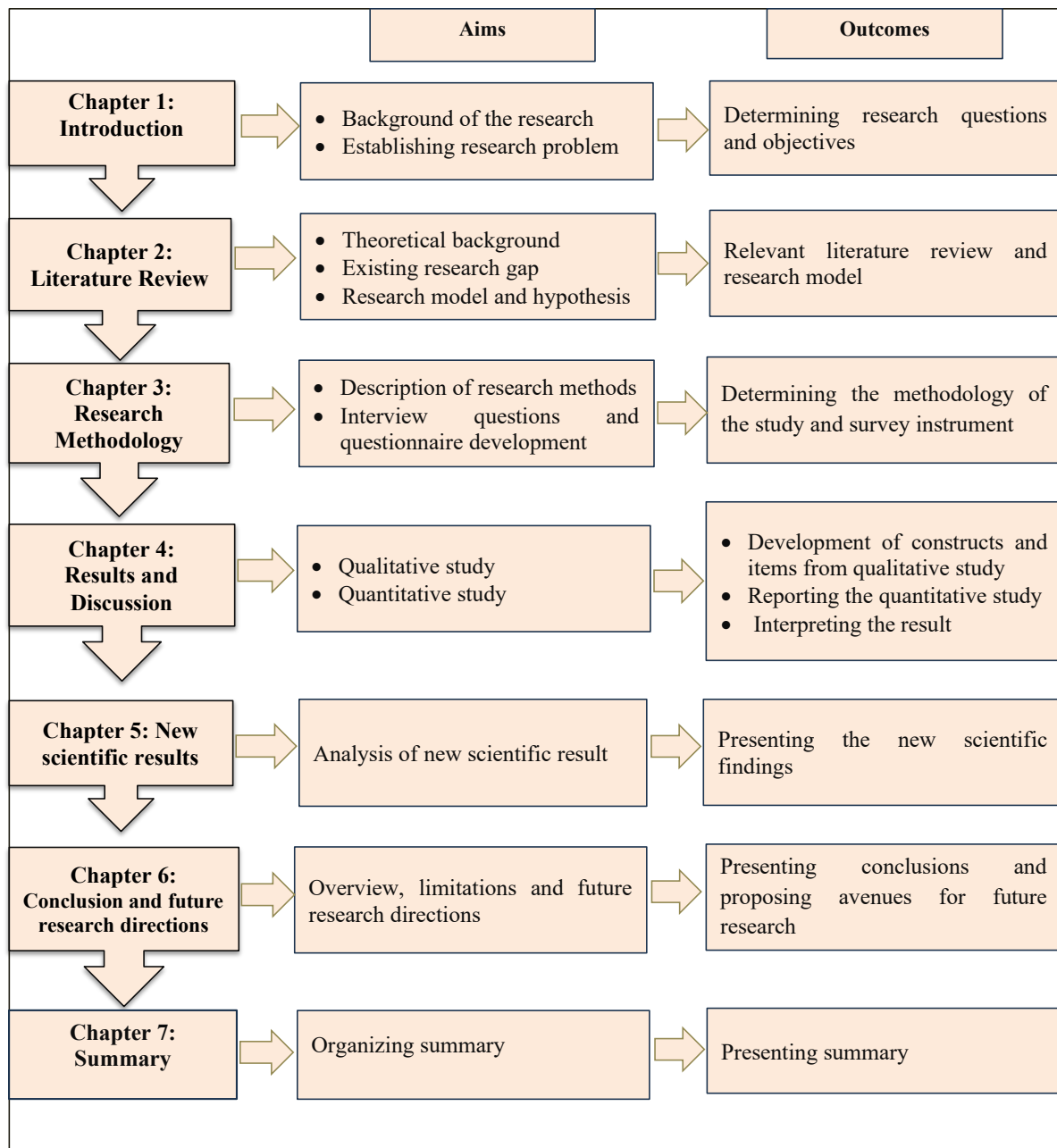


Figure 1. Structure of dissertation

Source: Own construction (2025)

2 LITERATURE REVIEW

2.1. Community-based tourism enterprise

This section introduces the concept of CBT and its practical application through CBTEs. It explores the principles, objectives, and outcomes of CBT, as well as the role of CBTEs in promoting local participation, cultural preservation, and sustainable community development.

2.1.1. Overview of Community-based tourism

Community-based tourism (CBT) has appeared as a key strategy for promoting community development in developing nations, originating in the 1970s with calls for greater bottom-up participation in development initiatives (Manyara and Jones, 2007; Novelli et al, 2017; Reid et al, 2004). Nevertheless, a common definition or concept of CBT has not been established in the 40 years since the word was initially introduced (Mayaka, 2015). Despite increasing interest in the CBT concept as both a practice and an area of study, the topic remains mostly fragmented and requires deeper theoretical foundations. Thus, it is essential to integrate current theory and direct its study towards the implementation of CBT as a community growth strategy (Manyara and Jones, 2007). CBT has been introduced as an implementation of the community-oriented approach to planning tourism and as a strategy of sustainable growth of tourism (Mayaka, 2015; Murphy, 1985). Scholars describe CBT as a participatory model of community development that emphasizes active local engagement (Abdullah, 2016). Therefore, CBT represents an alternative strategy for sustainable expansion of tourism, because members of the local people control and/or own tourism businesses (Dodds et al, 2018; Schott and Nhem, 2018).

The publications of this chapter from the researcher.

Sinh, T. T. T., Nemeth, N. and Sarker, M. S. I., (2026). Developing a perspective on the functions of marketing in the contents of sustainable tourism: a bibliometric analysis. *International Journal of Electronic Marketing and Retailing*. <http://dx.doi.org/10.1504/IJEMR.2025.10073703>

Sinh, T. T. T., Németh, N., Sarker, M. S. I. and Nguyen, N. A., (2025). Past, Present, and Future Viewpoints on the Sustainability of Community-Based Tourism: A Bibliometric Study in Southeast Asia. *Sustainability Transition - Innovation Ecosystems - Digital Solutions: Conference volume*. Sopron University Publishing House, Sopron, pp. 120-138. ISBN 9789633345504. DOI: <https://doi.org/10.35511/978-963-334-550-4-s3-1>

Sinh, T. T. T., Nemeth, N. and Sarker, M. S. I., (2024). Digital marketing in community-based enterprises: A systematic literature review and research agenda. *Journal of Open Innovation: Technology, Market, Complexity*: 100414. <https://doi.org/https://doi.org/10.1016/j.joitmc.2024.100414>

Sinh, T. T. T., Németh, N., Thuy, P. T., Nguyen, N. A., (2023). Impact of COVID-19 Pandemic on Tourism Sector in Vietnam. *Society - Economy - Nature: Synergies In Sustainable Development (International scientific conference on the occasion of the Hungarian Science Festival)*. Sopron University Publishing House, Sopron, pp. 259-275. ISBN 9789633344507. DOI: 10.35511/978-963-334-450-7_s6_Tran_et_al

Although CBT research encompasses diverse approaches, most scholars agree on three key dimensions for evaluating its success and influence. The first dimension is community participation - the level to which community members are meaningfully involved in tourism planning, decision-making, and operations (Dodds et al, 2018; Manyara and Jones, 2007; Ngo et al, 2018). Second is power and control - the level of authority and influence exercised by community members over the development and management processes (Mayaka, 2015; Ngo et al, 2020). The third dimension concerns the distribution of benefits and quality of experience - the extent to which tourism benefits are equitably shared among residents, and these outcomes align with positive tourist experiences (Dodds et al, 2018; Goodwin and Santilli, 2009; Zapata et al, 2013). While these dimensions provide useful evaluative criteria, some studies have concluded that CBT often falls short of its goals due to challenges in governance, participation, and benefit-sharing (Mayaka, 2015).

The community-focused attributes of CBT are considered to promote the enduring development of a region (Truong et al, 2014). CBT has the potential to extend the advantages of tourism to wider remote regions, strengthen the social assets of a community, facilitate community empowerment, cultivate a sense of pride and community, and advance regional equity and development (Dodds et al, 2018; Lemelin et al, 2015; Pawson et al, 2019; Schott and Nhem, 2018). Furthermore, CBT can function as a mechanism for actualizing the consumptive aspects of pro-poor travel, ecological tourism, volunteering tourism, and other variants of transformative tourism. The experiences with CBT can function as a valuable approach to promote both environmental education and biodiversity conservation within the framework of eco-tourism (Sakata and Prideaux, 2013; Tseng et al, 2018). Similarly, tourists engaging in volunteer activities in less-developed countries often participate in CBT to support local development (Lupoli et al, 2014).

CBT has become a key mechanism in accomplishing the United Nations Sustainable Development Goals (UN-SDGs), particularly in addressing poverty reduction, mitigating the environmental impacts, and supporting sustainable rural employment within developing nations (Imbaya et al, 2019; Kline et al, 2019; Saarinen and Rogerson, 2017). The current collection of CBT research highlights essential elements for challenges and success in the development of CBT, including the consideration of community needs and the encouragement of community involvement and participation (Ashley and Mitchell, 2009; Spenceley and Meyer, 2012) and strengthening capacities in communities (Ashley and Mitchell, 2009; Saarinen and Rogerson, 2017). Scholars have identified six critical success factors for the

effective implementation of CBT (Dodds et al, 2018), such as (1) capacity enhancement and participatory planning; (2) partnerships and collaboration allowing market access; (3) integrating local empowerment and regional leadership; (4) environmental objectives and setting community; (5) assistance from partnerships (commercial sector, government, and financing organisations); (6) a focus on supplementary income for community sustainability. Addressing community needs, building local capacities, and ensuring inclusive participation are crucial for long-term achievement of CBT initiatives (Ashley and Mitchell, 2009; Spenceley and Meyer, 2012).

2.1.2. Characteristics of Community-based tourism enterprises

Community-based tourism enterprises (CBTEs) exemplify an enterprise-driven model for community-based tourism (CBT), in which entrepreneurial concepts are integrated into tourism planning for sustainable growth (Ngo et al, 2019). The CBTE established essential evaluation criteria, particularly focusing on competitiveness of businesses, community advantages, and conservation impact within the scope of SMEs (Manyara and Jones, 2007; Ngo et al, 2019). The introduction of CBTEs should be combined within the broader framework of community-based enterprises (CBEs) as well as small and medium companies (SMEs) (Ditta-Apichai et al, 2020; Ngo et al, 2019). The next parts explain these combinations, first outlining the characteristics of CBEs and SMEs, and then illustrating the integration forms the CBTE framework contributes to sustainable tourism outcomes.

A community-based enterprise (CBE) is an entrepreneurship program aimed at improving the standard of living and fostering economic growth within a particular community or region (Sinh et al, 2024a). Some studies indicate that this enterprise is primarily defined by three key criteria: (1) local participation in ownership, (2) full community involvement in the management and operation of the venture, and (3) communities serving as the primary consumers of the project (Peredo and Chrisman, 2006). Furthermore, additional research has identified at least five different characteristics that characterize CBE (Handy et al, 2011; Mayaka, 2015). First, the definition of community is a collective of individuals residing in a common area, unified through connections such as heritage and shared values. Second, it involves the engagement of members, potentially through diverse methods and with differing degrees of commitment, in the pursuit of a collective community goal, which reflects a certain difference within the community. The objective of a CBE does not necessarily have to be focused on profit. Thirdly, it is observed that CBEs often emerge as a response to economic, social, or environmental pressures. Fourth is the potential for collective learning and the

development of skills and knowledge through collaboration with others. Fifth is the expectation of an adaptable innovative reaction to the legal, political, and social influences resulting from the CBE process. In tourism, a CBE is a sustainable, community-owned CBT project where locals actively participate in management and development, and the community benefits directly (Manyara and Jones, 2007).

Small and medium enterprises (SMEs) make up most of the travel and tourism industry, and most of these businesses are family-owned and based in rural locations of developing nations (Chang, 2011). Tourism micro-businesses are typically operated by less than ten close family members (Banki et al, 2016), while other definitions consider SMEs as small-sized, often local tourism ventures with five or fewer active participants (Ferreira et al, 2015). These businesses are characterized by their adaptability and increasing use of digital technologies that enhance market access and support competitive differentiation (Ferreira et al, 2015). Tourism SMEs contribute to decreasing poverty, increasing capacity, and empowering communities (Manyara and Jones, 2007). Furthermore, tourism SMEs help counter urban-normative discourses by representing rural and marginalized communities (Nazariadli et al, 2019). This attributes an important function to tourism micro-enterprises in promoting balanced and sustainable development in communities (Aquino et al, 2018).

CBEs and SMEs make up a CBTE. This enterprise typically combines community ownership and management with entrepreneurial sustainability principles, enabling tourism businesses to deliver both financial and non-financial benefits to residents (Malatji and Mtapuri, 2012; Mayaka, 2015). In terms of financial benefits, CBTEs can improve livelihoods, income, employment, and community revenue (Torres et al, 2011). Regarding social benefit, people would support the CBT initiative if it guaranteed some community ownership in its management and development (Stone and Stone, 2011). CBTEs often require relatively small capital investments, making them accessible to rural communities and ensuring a fair distribution of costs and benefits (Ngo et al, 2018). Based on the definitions of CBEs and SMEs, this study defines a CBTE as a small-scale enterprise situated in a remote or rural region of a less-developed nations and distinguished by the following primary characteristics: It is managed, owned, and supervised by a local people, thereby providing advantages to that community (Manyara and Jones, 2007; Ngo et al, 2020).

The concept of CBTEs differs from related terms such as indigenous or aboriginal tourism ventures in two main ways. First, geographically speaking, CBTEs are primarily developed in less-developed or rural regions, unlike indigenous and aboriginal tourism ventures that are

more common in advanced economies such as Australia, New Zealand, and North America (Ngo et al, 2019; Stone and Stone, 2011). Therefore, the term CBTEs is used to fit this type of study into the context of less-developed areas. Second, in comparison to indigenous tourism enterprises or aboriginal tourism programs, CBTE can be used in a way that is more indigenous and flexible. Under the CBTE framework, local entrepreneurs may belong to minority ethnic groups or rural tribes that live in rural, mountainous, or remote regions, instead of a citizen who lives in cities or more civilized areas. Therefore, the concept of CBTEs used in this study is set up with certain and clear definitions.

Africa, Latin America, and Asia are developing nations where the framework of CBTEs has grown rapidly to include all potential forms of CBT (Ngo et al, 2019). CBTEs are viewed as a promising approach to sustainable local development, contributing to conservation, income diversification, and community empowerment (Lemelin et al, 2015; Sakata and Prideaux, 2013). These enterprises help reduce rural poverty, promote sustainable resource use, strengthen social capital, and foster community pride and identity (Ngo et al, 2018; Pradhan and Samanta, 2022; Teerakul et al, 2012). Moreover, CBTEs play a vital role in biodiversity preservation and provide sustainable livelihoods, thereby supporting both socioeconomic and environmental sustainability (Pradhan and Samanta, 2022; Salafsky et al, 2001).

Despite their potential, CBTEs have often failed to achieve expected outcomes in terms of sustainability performance. Empirical studies reveal that only a small proportion of CBTEs achieve long-term success (Goodwin and Santilli, 2009; Weaver, 2010). For instance, in Zambia, only three out of 25 CBTEs were assessed as achieving satisfactory success (Dixey, 2012). The explanations for the minimal effectiveness of CBTEs in countries that are less developed have been extensively explored within the literature on tourism. Operational challenges, including the lack of financial stability, inadequate administration and governance (Muckosy and Mitchell, 2008; Truong et al, 2014), as well as marketing-related problems (Goodwin and Santilli, 2009; Muckosy and Mitchell, 2008), are highlighted as the key elements behind the failure of CBTEs. The management challenges, unequal power relations, excessive reliance on external support, and community conflicts (Van der Duim and Caalders, 2013; Zapata et al, 2013). At the socio-cultural impacts, such as disillusionment, cultural erosion, and negative attitudes toward tourism in some Asian CBT projects (Kontogeorgopoulos et al, 2015; Taylor, 2017). These findings indicate that while CBTEs hold strong theoretical appeal, their practical implementation remains constrained by economic, managerial, and socio-cultural barriers.

2.2. Sustainability performance

This section examines the concept of sustainability performance within tourism, beginning with an overview of sustainable tourism principles. Then, exploring sustainability is assessed in the tourism sector, with a concentration on CBTEs. Finally, discussing the measurement of sustainability performance dimensions, including environmental, social, and economic impacts, to provide a framework for evaluating CBTE outcomes.

2.2.1. Sustainable tourism

Sustainable tourism, according to the WTO, is tourism that fully considers its potential and present effects on the economy, society, and environment while addressing the requirements of tourists, the industry, the environment, and host communities (WTO, 2005). This concept represents the initial idea of sustainable tourism emerging in association with the principle of sustainable development (Tseng et al., 2018). Literature indicated that sustainable tourism is effective only when its financial, cultural, and environmental dimensions are equally balanced and interrelated (Angelevska-Najdeska and Rakicevik, 2012; Tseng et al, 2018). This highlights the balance between economic and environmental aspects in tourism, promoting energy conservation, pollution reduction, and community welfare (Tseng et al, 2018).

Sustainable tourism represents a multi-sectoral and multidisciplinary strategy aligned with the principles of the triple bottom line concept (Tseng et al, 2018). The economic contributions of tourism are widely recognized through infrastructure development, tourism supply chains, job creation, and business opportunities (Ferede, 2019; Kachniewska, 2015; Tseng et al, 2018). However, while tourism development in remote regions provides economic advantages, such as heightened business activity and employment opportunities, it comes with additional costs for society and the environment (Kachniewska, 2015; Tseng et al, 2018). Therefore, the tourism industry needs to establish clear connections between sustainable socio-environmental and economic performance through processes that collaborate to attain sustainable tourism outcomes (Kachniewska, 2015; Ngo et al, 2018; Tseng et al, 2018).

Effective tourism operation requires collaboration between regional stakeholders and tour operators to ensure natural area preservation within sustainable development (Ferede, 2019; Ngo et al, 2019; Tseng et al, 2018). Such collaboration enables community participation in decision-making, ensures equitable distribution of economic benefits, and promotes shared responsibility for environmental stewardship (Ferede, 2019; Tseng et al, 2018). Government initiatives are currently divided from business activities within attraction areas, both to

enhance the economic performance of businesses and to improve the preservation of both cultural and natural assets (Forstner, 2004; Manyara and Jones, 2007). Moreover, integrating local stakeholders into this framework promises that the growth of tourism will connect with local demands and aspirations, fostering both social inclusion and long-term sustainability (Ferede, 2019; Tseng et al, 2018). By integrating economic goals with environmental and cultural preservation, this tourism management model provides a practical pathway for sustainable and responsible tourism development across diverse contexts (Ferede, 2019).

2.2.2. Sustainability performance in tourism

Sustainability performance reflects a business's dedication to attaining lasting achievement while mitigating environmental, social, and economic consequences (Borah et al, 2022). These notions include a business's environmental, economic, and social impacts, assessed and maintained utilising indicators for important performance to effectively measure progress (Borah et al, 2022; Oyewobi et al, 2021).

2.2.2.1. Economic performance

The economic aspect of sustainable tourism emphasizes measuring the long-term viability and equitable distribution of benefits rather than short-term revenue gains (Ferede, 2019). Economic performance is best assessed through indicators such as income generation, employment opportunities, capital investment, and the extent of local economic linkages (Borah et al, 2022; Ferede, 2019). Additional measures include skills development, service quality, and visitor satisfaction, which influence both destination competitiveness and tourist spending (Borah et al, 2022; Deb et al, 2024). High-quality tourism products and infrastructure further enhance economic resilience (Ferede, 2019). Overall, sustainable economic performance in tourism depends on maintaining financial viability, strengthening local participation, and ensuring long-term advantages for the broader community (Borah et al, 2022; Deb et al, 2024; Ferede, 2019).

2.2.2.2. Social performance

Social performance in sustainable tourism assesses how tourism supports both social well-being and cultural preservation within host communities (Ferede, 2019). Social sustainability is measured through indicators such as community participation, poverty alleviation, reinvestment of tourism income into local services, and the extent of collaboration between local stakeholders and government or private sectors (Ferede, 2019; Kachniewska, 2015; Ngo et al, 2018; Tseng et al, 2018). It reflects the degree to which tourism enhances livelihoods,

social inclusion, and empowerment. Cultural sustainability, meanwhile, focuses on protecting socio-cultural authenticity, conserving tangible and intangible heritage, and maintaining local identity and traditions (Kachniewska, 2015; Ngo et al, 2018; Tseng et al, 2018). It is also evaluated through efforts in cultural education, interpretation, and training to ensure respectful and accurate representation of heritage (Ngo et al, 2018). Together, these dimensions capture tourism's broader social and cultural impact, emphasizing community empowerment, cultural respect, and the sustainable integration of tourism into local life.

2.2.2.3. Environmental performance

Another crucial aspect of tourism is environmental sustainability. The measurement of environmental performance in sustainable tourism focuses on evaluating tourism activities effectively that conserve natural and manmade resources while minimizing ecological degradation (Ferede, 2019; Ngo et al, 2018). Environmental sustainability emphasizes the optimal use of environmental resources essential for tourism development and the maintenance of ecological processes that safeguard biodiversity and natural heritage (Franzoni, 2015; Tseng et al, 2018). Furthermore, education and awareness programs for both local communities and visitors play a vital part in encouraging responsible behavior and fostering a culture of conservation (Ngo et al, 2018; Truong et al, 2014). Collectively, these indicators present an extensive overview of tourism contributes to environmental protection, conservation of biodiversity, and the enduring ecological sustainability of locations.

2.2.3. Sustainability performance of CBTEs

Sustainability performance reflects a business's dedication to long-term achievement while reducing adverse effects on the environment, society, and economy (Borah et al, 2022). Within the context of CBT, this concept emphasizes the two goals of ensuring financial sustainability and fostering community growth (Ngo et al, 2018). It recognizes that sustainable tourism enterprises not only generate economic value but also support local communities' well-being and the preservation of cultural and natural resources (Le et al, 2016; Manyara and Jones, 2007). However, while these objectives are essential for the long-term achievement of CBTEs, they often exist in tension. Pursuing profitability can sometimes clash with social equity or environmental preservation, underscoring the challenge of balancing economic success with community well-being and ecological sustainability in CBTE development (Ngo et al, 2019; Ngo et al, 2018).

Economic performance, or commercial viability, is widely regarded as a crucial criterion for the long-term achievement of CBTEs (Ngo et al, 2018). The economic performance of a CBTE might be measured by indicators such as annual visitor numbers, business revenue, profits, and operational longevity (Chatterjee and Kar, 2020; Ngo et al, 2018). Although CBTEs can attract socially conscious travellers through poverty alleviation and community development initiatives (Le et al, 2016), this market segment remains small, as few tourists are willing to engage with CBT products without prior interest (Suansri, 2003). The tourism literature highlights numerous CBT initiatives that have failed because they focused primarily on social objectives, such as community participation, gender empowerment, and capacity building, without adequately addressing business viability (Manyara and Jones, 2007; Ngo et al, 2020). Therefore, financial success is a prerequisite for achieving broader social and environmental goals, as a financially stable CBTE is better positioned to deliver sustained benefits to local communities (Ngo et al, 2018).

However, the development of CBTEs requires integrating business success with community well-being, including both environmental and social performance (Mayaka, 2015; Ngo et al, 2018). Separating economic goals from community development can cause serious negative impacts, such as cultural erosion, commodification of indigenous values, external stakeholder dominance, benefit leakages, and internal community conflicts (Stone and Stone, 2011). In contrast, CBTE efforts that prioritize community welfare, through equitable benefit-sharing, cultural preservation, and environmental stewardship, build trust, local engagement, and social capital. These achievements boost the company's credibility and attract responsible, value-driven travelers (Franzoni, 2015; Tseng et al, 2018). Therefore, integrating community well-being objectives is both a strategic approach and an ethical requirement that can enhance both the social legitimacy and market competitiveness of CBTEs (Ngo et al, 2020).

Achieving a balance between financial success and community development is fundamental to ensuring the long-lasting sustainability of CBTEs (Ngo et al, 2018). Sustainable CBTEs should align economic objectives with social, cultural, and environmental responsibilities, acknowledging that tourism success and community well-being are mutually dependent (Franzoni, 2015; Ngo et al, 2018). A strong understanding of tourism markets and consumer behavior, together with enhanced community management capacity, is essential for ensuring both economic viability and effective governance in CBTEs (Asker et al, 2010). Therefore, when CBTEs connect financial performance with community empowerment, cultural

preservation, and conservation, they assure long-term profitability and boost their trustworthiness and sustainability in a competitive tourism sector (Ngo et al, 2018).

2.2.4. Measurement of the sustainability performance dimensions

Business sustainability performance reflects the incorporation of environmental preservation, revenue generation, and responsibility for society into corporate activities, while also considering stakeholder interests (Borah et al, 2022; Deb et al, 2024). Nevertheless, existing literature implies that the range of instruments for assessing business sustainability performance is complex and diverse. The concept of the "triple bottom line" has established the concept of the fundamental basis for numerous standards of sustainability. In particular, (1) four tools were identified under the reporting guidelines, including the International Integrated Reporting Council (IIRC), Global Reporting Initiative (GRI), National Voluntary Guidelines (NVG), and the European Union Non-Financial Reporting Directive (EUNFRD); (2) Under the principle guidelines, two tools were recognized: the Carbon Disclosure Project (CDP) and the OECD; Principles of Corporate Governance; (3) the Indicator guidelines comprised thirteen tools, including the Indicators of Sustainable Development (ISD) and the Sustainable Manufacturing Indicator Repository (SMIR), among others (Saulick et al, 2023).

However, CBTEs face challenges in measuring sustainability performance, as the available research lacks a standardized measure to assess social, environmental, and economic consequences due to limited data, capacity constraints, and fragmented research approaches (Manyara and Jones, 2007; Ngo et al, 2019). The majority of prior literature on sustainability performance often focuses on qualitative research, including in-depth interviews (Manyara and Jones, 2007; Ngo et al, 2018). Nevertheless, there is a lack of theoretically developed and empirical literature that uses quantitative methods to analyze sustainability performance in CBTEs. Consequently, this study integrates the environmental, social, and economic aspects to examine the connection between social media marketing (Table 1).

Table 1. Measurement of sustainability performance from the tourism literature

Dimensions	Measurement item	Source
Economic performance (EP)	Number of customers	(Qalati et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2018), (Franzoni, 2015)
	Customer loyalty and retention	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015)
	Customer relationship	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015)
	Services costs	(Franzoni, 2015), (Qalati et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2018)
	Information accessibility	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015)
	Employment quality	(Tseng et al, 2018), (Franzoni, 2015)
	Local prosperity	(Tseng et al, 2018), (Franzoni, 2015), (Ngo et al, 2018)
	Sustainable production	(Tseng et al, 2018), (Franzoni, 2015)
	Technology management	(Tseng et al, 2018), (Franzoni, 2015)
	Revenue growth	(Franzoni, 2015), (Tseng et al, 2018)
	Local economic contribution	(Franzoni, 2015), (Tseng et al, 2018), (Ngo et al, 2018)
	Traditional sources of income	(Ngo et al, 2018)
	Variety of tourism products and services	(Ngo et al, 2018)
Social performance (SP)	Concerned with the local community	(Tseng et al, 2018), (Franzoni, 2015)
	Socially responsible behavior	(Tseng et al, 2018), (Franzoni, 2015)
	Create job opportunities	(Tseng et al, 2018), (Franzoni, 2015)
	Cultural wealth	(Tseng et al, 2018), (Franzoni, 2015), (Ngo et al, 2018)
	Satisfaction level of local residents	(Franzoni, 2015), (Tseng et al, 2018)
	Fair wages and working conditions	(Franzoni, 2015), (Tseng et al, 2018)
	Employee training and development opportunities	(Franzoni, 2015), (Tseng et al, 2018)
	Community participation and empowerment	(Franzoni, 2015), (Tseng et al, 2018)
	Support for local culture and heritage	(Tseng et al, 2018), (Franzoni, 2015), (Ngo et al, 2018)
	Preserving indigenous culture and local traditions	(Ngo et al, 2018)
Environmental performance (EP)	Participating in tourism activities of the whole community	(Ngo et al, 2018)
	Biodiversity protection	(Tseng et al, 2018), (Franzoni, 2015)
	Protection of natural resources	(Tseng et al, 2018), (Franzoni, 2015)
	Adoption of environmental standards	(Tseng et al, 2018), (Franzoni, 2015)
	Energy consumption	(Tseng et al, 2018), (Franzoni, 2015)
	Water consumption	(Tseng et al, 2018), (Franzoni, 2015)
	Use of sustainable materials	(Tseng et al, 2018), (Franzoni, 2015)
	Environmental education	(Tseng et al, 2018), (Franzoni, 2015)
	Total waste recycled	(Tseng et al, 2018), (Franzoni, 2015)

Source: Own research (2025)

2.3. Social media marketing adoption

This section explores the adoption of social media marketing in tourism, beginning with the theoretical foundations. Then, examining the key elements influencing social media marketing adoption, its function in supporting the sustainability of CBTEs, and the measurements used to measure adoption. Finally, the specific application of social media marketing within CBTEs emphasizes its potential to enhance sustainability performance.

2.3.1. Theoretical background

Social media marketing, as an aspect of technological innovations, has emerged as a vital part of modern business operations. To understand these technological adoptions, multiple theories have been developed to clarify the factors influencing adoption behavior at both individual and organizational levels (El-Gohary, 2012; Liu and Shrum, 2002; Rafaeli, 1988; Tan et al, 2018). Accordingly, this section outlines the key theoretical frameworks relevant to technology adoption in these contexts.

2.3.1.1. TAM theory

Multiple theoretical frameworks have been constructed for forecasting the adoption and application of innovative technologies. The Technology Acceptance Model (TAM) is the most widely utilized and prominent set of models in social marketing research (Tan et al, 2018). The primary assumption of TAM supports the explanatory influence of external elements on internal factors. TAM emphasizes two significant variables, namely Perceived Usefulness (PEU) and Perceived Ease of Use (EOU) (Davis, 1989), as external factors believed to account for variability in attitude and behavioral intention toward a specific object, which are characterized as internal factors. PEU can be characterized as the level to which an individual believes that utilizing a given system will enhance their job performance. In contrast, EOU can be interpreted as the extent to which a person feels that using any specific system would require minimal effort (Davis, 1989). The TAM model asserts that both PEU and EOU influence attitudes toward an object, and that these attitudes, along with PEU, subsequently play a decisive role in shaping behavioral goals (Venkatesh and Davis, 2000).

TAM has been regarded as the most extensively utilized technology adoption paradigm within the existing literature (Tan et al, 2018). Multiple factors were presented to support the advantageous position of the model. One benefit of TAM is its concise and parsimonious theoretical basis (Tan et al, 2018). Therefore, external factors were confirmed to account for over fifty percent of behavioral intentions (Rahman et al, 2017). In particular, it has been

validated within tourism literature that it can be extended through the incorporation of multiple theories (El Archi and Benbba, 2023). All these factors are considered to create TAM, the most widely adopted theory to comprehend technology adoption behavior (El Archi and Benbba, 2023). Various studies have shown that technology advances tourism by enhancing perceived usefulness and perceived ease of use, which increases individuals' intentions to use tourism products and services. The TAM model has been applied in tourism-related sectors, such as mobile social networking promotion to promote tourist attractions (Tan et al, 2018), and to explain elements affecting social media marketing adoption in small tourism firms (Chatterjee et al, 2024; Chatterjee and Kar, 2020; Dahnili et al, 2014; El-Gohary, 2012). It has also been used to explore the connection between social media use and sustainability performance (Borah et al, 2022).

Nevertheless, the TAM model has faced criticism for lacking external variables, relying on self-reported data, and explaining only limited variance in usage behavior (Tan et al, 2018). To address these issues, TAM2 (Venkatesh and Davis, 2000) incorporated elements such as output quality, subjective norms, and job relevance, while TAM3 (Venkatesh and Davis, 2000) further examined influences on perceived ease of use, including experience and its moderating effects. However, both extensions increased model complexity and remained focused on traditional, technology-driven contexts (Lim et al, 2013). Despite these limitations, TAM continued to be widely used due to its simplicity, strong theoretical grounding, and robust explanatory power across diverse settings (Chatterjee et al, 2024; Chatterjee and Kar, 2020). Building on these strengths, this study applies TAM's two core elements, perceived usefulness and perceived ease of use, to examine social media marketing adoption among CBTEs.

2.3.1.2. UTAUT theory

The Unified Theory of Acceptance and Use of Technology (UTAUT) was introduced as a synthesis of several different approaches (Venkatesh et al, 2003). It discovers four major indicators of technological acceptance, including facilitating conditions, social influence, performance expectancy, and effort expectancy, while also evaluating moderating factors such as age, gender, experience, and voluntariness (Venkatesh et al, 2003). Despite its strong explanatory power regarding behavioral intention and actual use (Holden and Karsh, 2010), UTAUT has been criticized for focusing primarily on individual perspectives and overlooking broader social or organizational contexts (Dwivedi et al, 2019). To address these limitations, UTAUT2 (Venkatesh et al, 2012) extended the model by integrating three further structures: price value, habit, and hedonic motivation, particularly within mobile technology contexts.

Although TAM has been extended to include TAM2, TAM3, and UTAUT, it remains an effective model that has been widely accepted as an effective framework for predicting and explaining the adoption of innovative technology (El-Gohary, 2012). This study applied the TAM (Perceived ease of use and Perceived usefulness) and UTAUT2 (Facilitating Conditions and Price Value) models, identifying key variables as significant predictors of the adoption (Chatterjee and Kar, 2020). Tourism SMEs might be reluctant to implement social media unless it proves to be more cost-efficient than traditional approaches (Chatterjee and Kar, 2020; El-Gohary, 2012). Furthermore, owners of CBTEs are more likely to adopt social media marketing if they have proper training and favorable operating conditions (Chatterjee et al, 2024; El-Gohary, 2012). Therefore, facilitating conditions and price value from the UTAUT2 model may also be key elements impacting CBTEs' adoption.

2.3.1.3. Innovation Diffusion Theory (IDT)

Innovation Diffusion Theory, also referred to as the IDT model (Rogers, 1983), is a leading framework in the promotion of new technologies and is considered the most commonly accepted model among researchers, often connected with studies on innovations in technology (El-Gohary, 2012). The theory identifies five primary characteristics of a novel approach: (1) compatibility - the extent to which a novel idea complies with existing organizational values, views, and experiences; (2) complexity - the level to which an innovation is difficult to employ comprehend, or learn; (3) relative advantage - the level to which a new idea enhances productivity and efficacy, offers economic benefits, and elevates the organization's status; (4) trialability - the level to which a new concept can be experimented with; (5) observability - the extent to which an innovation is obvious within the organization (Rogers, 1983). Therefore, the innovation needs to initially show its relative advantage over existing techniques, such as simplicity, adaptability, observability, cost reduction, and profitability.

In tourism, numerous studies have examined tourism enterprises adopt and utilize e-commerce to achieve business objectives, such as e-shopping and travel booking, and develop effective websites to enhance customer relationships (Gu et al, 2019; Mapeshoane and Pather, 2016). Moreover, several researchers have applied the IDT framework to analyze the expansion and acceptance of social media marketing in tourism, highlighting how technological innovations diffuse among tourism businesses to improve marketing effectiveness and competitiveness (Chatterjee et al, 2024; Chatterjee and Kar, 2020; Dahnili et al, 2014; El-Gohary, 2012). In the present context, CBTE owners are more likely to adopt social media marketing when they perceive it as familiar and compatible with their existing

experience and established business practices (Chatterjee and Kar, 2020; Hsu et al, 2007). Therefore, compatibility may be regarded as an additional factor that could motivate CBTEs to adopt social media marketing for the enhancement of the growth of business (Chatterjee and Kar, 2020; El-Gohary, 2012).

2.3.1.4. Interactivity theory

Interactivity is a multifaceted concept with a rich academic foundation that has been explored across several research domains (Tan et al, 2018). Over the years, studies have evaluated interactivity through three main perspectives: functional characteristics, interactive processes, and perceived interactivity (Kim and Lee, 2019; Odoom et al, 2017; Tan et al, 2018). The first perspective views interactivity as a functional attribute, focusing on the observable features that enable interaction (Okazaki, 2005). The second perspective emphasizes interactive processes, referring to the actual actions and exchanges, such as information sharing and user responsiveness, that make an experience interactive (Liu and Shrum, 2002). The third perspective centers on perceived interactivity, which relates to individuals' subjective experience and interpret interaction (Kim et al, 2012). From this viewpoint, factors such as timeliness and engagement are essential, and perceived interactivity is commonly conceptualized through three interrelated dimensions: control, two-way communication, and time (Kim and Lee, 2019; Kim et al, 2012).

Interactivity has been defined by a high degree of interaction and engagement between the seller and the consumer, as viewed by the buyer (Bao et al, 2016). It provides numerous advantages, such as personalized information, improved communication between parties, and the overall improvement of communication quality (Tan et al, 2018). Researchers contend that interactivity is not a unidimensional construct but rather a multifaceted concept influenced by the development of communication technologies in recent decades (Bao et al, 2016; Tan et al, 2018). Although definitions differ, the majority of research agrees that online interactivity primarily involves three essential components: the exchange of information, responsiveness to customer inquiries, and consumer authority over information (Jensen et al, 2014). These dimensions align with the conceptual frameworks of two-way communication (Haeckel, 1998), dynamic regulation (Bezjian-Avery et al, 1998), and synchronicity (Rafaeli, 1988). Based on these arguments, this research chooses interactivity as the core independent element for social media adoption. Building upon these foundations, this study designates interactivity as a fundamental independent variable affecting the adoption. Table 2 summarizes the theoretical framework employed in this research.

Table 2. Antecedents and Underlying Theories

Theories	Antecedents	References
The Technology Acceptance Model (TAM)	Perceived usefulness Perceived ease of use	(Davis, 1989)
The Technology Acceptance Model (TAM2)	Subjective Norm Image Job Relevance Output Quality Result Demonstrability	(Venkatesh and Davis, 2000)
The Technology Acceptance Model (TAM3)	Behavioral intention Use behavior	(Venkatesh and Bala, 2008)
The Unified Theory of Acceptance and Use of Technology (UTAUT)	Effort expectancy Social influence Performance expectancy Facilitating conditions	(Venkatesh et al, 2003)
The Unified Theory of Acceptance and Use of Technology (UTAUT2)	Hedonic motivation Price Value Habit	(Venkatesh et al, 2012)
Innovation Diffusion Theory (IDT)	Innovation Communication channels Time Social system Relative advantage Compatibility Complexity Triability Observability	(Rogers, 1983)
Interactivity theory	Functional factors (speed, range, control) Perceptual factors (responsiveness, personalization, trust, enjoyment) Interaction (content, technology)	(Rafaeli, 1988)

Source: Own research (2025)

2.3.2. Factors that affect social media marketing adoption

Social media has transformed tourism SMEs communicate and manage public relations by enabling open and interactive communication channels (El-Gohary, 2012). This openness allows businesses to comprehend customer demands better and respond efficiently and proactively (Tajudeen et al, 2018). As more tourism SMEs invest in social media, identifying the key factors that drive successful adoption becomes increasingly important (Sharma and Sharma, 2024; Tajudeen et al, 2018). Therefore, social media marketing adoption has become a central focus in discussions on technological innovation and tourism SME performance. As shown in Table 3, the proposed framework categorizes influencing factors into three main groups based on their organizational impact, providing a holistic perspective on social media marketing adoption in the tourism sector.

Table 3. Literature-based factors affecting small tourism firms adopting to new technology

Groups	Factors	References
Environmental micro factors	Facilitating conditions	(Venkatesh et al, 2012), (Chatterjee and Kar, 2020), (Çalışkan et al, 2025)
	Interactivity	(Rafaeli, 1988), (Liu and Shrum, 2002), (Tan et al, 2018), (Odoom et al, 2017)
	Owner skills and support	(El-Gohary, 2012), (Ozekici, 2022), (Tajudeen et al, 2018)
	Organizational culture	(El-Gohary, 2012), (Ozekici, 2022), (Tajudeen et al, 2018)
	Organization resources	(El-Gohary, 2012), (Ozekici, 2022), (Tajudeen et al, 2018)
	Organization size	(El-Gohary, 2012), (Ozekici, 2022),
	Cost	(Venkatesh et al, 2012), (Chatterjee and Kar, 2020), (Çalışkan et al, 2025)
	Perceived usefulness	(Davis, 1989), (El-Gohary, 2012), (Tan et al, 2018)
	Perceived ease of use	(Davis, 1989), (El-Gohary, 2012), (Tan et al, 2018)
	Compatibility	(Rogers, 1983), (El-Gohary, 2012), (Odoom et al, 2017)
	Self-efficacy	(Ozekici, 2022), (Tan et al, 2018)
	Security	(Ozekici, 2022)
Environmental macro factors	Competitive pressures	(El-Gohary, 2012), (Ozekici, 2022)
	Government influences	(El-Gohary, 2012), (Ozekici, 2022)
	Market trends and industry pressure	(El-Gohary, 2012), (Ozekici, 2022)
	Cultural orientation towards	(El-Gohary, 2012), (Ozekici, 2022)
	Electronic marketing	(El-Gohary, 2012), (Ozekici, 2022)
	National infrastructure	(El-Gohary, 2012), (Ozekici, 2022)
Digital Marketing tools	Marketing Analytics	(Sinh et al, 2024a), (Ozekici, 2022)
	E-Mail marketing	(El-Gohary, 2012), (Sinh et al, 2024a), (Ozekici, 2022)
	Search Engine Optimization	(Sinh et al, 2024a), (Ozekici, 2022)
	Content Marketing	(Sinh et al, 2024a), (Ozekici, 2022)
	Mobile marketing	(El-Gohary, 2012), (Sinh et al, 2024a), (Ozekici, 2022)
	Social media marketing	(Sinh et al, 2024a), (Ozekici, 2022)
	Affiliate Marketing	(Sinh et al, 2024a), (Ozekici, 2022)

Source: Own research (2025)

The overview of the literature indicated that multiple research studies have found a similar connection between the two theories. In particular, several studies have utilised TAM and IDT as a combined method to explore the various aspects influencing the adoption of novel technologies in tourism (El-Gohary, 2012; Giovanis et al, 2012; Sujood et al, 2024). In addition, TAM and UTAUT are two common and extensively used types of models for social media platform research (Ali et al, 2024; Chatterjee et al, 2024; Chatterjee and Kar, 2020; Tan et al, 2018). Additionally, several studies have combined TAM and Interactivity Theory to evaluate the elements influencing the adoption of innovative technologies in tourism (Abdullah, 2016; Liu and Shrum, 2002; Odoom et al, 2017; Tan et al, 2018). However, numerous studies in tourism businesses have solely applied and combined two theories, highlighting the need for a more comprehensive and integrated framework that incorporates additional influencing factors. In addition, no research has applied TAM specifically to social media marketing within CBTEs, emphasizing a clear gap in the literature. Thus, this research addresses this gap by extending TAM and combining it with UTAUT, IDT, and Interactivity theory to develop a comprehensive research model tailored to CBTEs in developing countries.

2.3.3. Social media marketing adoption for the sustainability of CBTEs

Social media marketing serves as an effective means for promoting between tourism enterprises and travelers, particularly CBTEs. Firstly, the majority of CBTEs are small-scale enterprises, generally managed by community members or private households, situated in areas of minimal development (Ngo et al, 2018). The local community functions as the entrepreneur, manager, and primary support of these enterprises (Ngo et al, 2020; Sinh et al, 2024a). Therefore, social media marketing is most suitable for organizations with restricted marketing budgets (Sinh et al, 2024a; Tan et al, 2018). Second, market-driven content, comprising data, pictures, and videos (Tan et al, 2018), can be readily shared and created among those situated in areas with little development (Ditta-Apichai et al, 2020). Thirdly, the data on social media platforms may be highly individualized, promoting the effective exchange of feedback and comments (Tan et al, 2018). Therefore, the advantages of social media for destinations are evident in enhancing brand awareness and engagement while reducing promotional costs (Berhanu and Raj, 2024); promotion by word of mouth; public acceptance, trust, and confirmation (Oyewobi et al, 2021; Tan et al, 2018).

Adopting social media marketing has proven to be an effective strategy for achieving sustainable economic growth among tourism SMEs (Berhanu and Raj, 2024; Borah et al, 2022; Sharma and Sharma, 2024). Previous studies have indicated that SME tourism needs to

include social media technologies in response to globalization impacts and the diverse range of digital transformation applications in tourism to ensure sustainable business practices (Deb et al, 2024; Sharma and Sharma, 2024). For CBTEs, social media provides cost-effective, user-friendly, and compatible tools for reaching broader audiences and improving market visibility (Berhanu and Raj, 2024; Çalışkan et al, 2025; Deb et al, 2024).

Although social media marketing presents numerous opportunities, many CBTEs continue to overlook or underutilize these digital tools (Sugandini et al, 2019). Several barriers contribute to this issue. Firstly, the most critical challenge is the lack of digital marketing knowledge and skills among CBTE operators (Sinh et al, 2024a; Sugandini et al, 2019). Research has indicated that entrepreneurs managing CBTEs often possess limited social media marketing capabilities, which hinders their ability to promote their enterprises effectively (Sugandini et al, 2019). Secondly, external barriers, including poor internet connectivity, inadequate infrastructure, and the remote location of CBTEs, further restrict their access to digital platforms (Ngo et al, 2020). These challenges, combined with geographic and cultural isolation from target markets, significantly reduce the potential of CBTEs to communicate with and attract visitors. This prevents CBTEs from promoting their enterprises successfully.

2.3.4. Measurements of social media marketing adoption

Numerous studies have explored social media use in tourism SMEs, identifying key measurement dimensions such as adoption, engagement, and performance (El-Gohary, 2012; Ngo et al, 2020; Rambe, 2017). The adoption dimension assesses the extent of social media use, including numerous platforms, such as Facebook, Instagram, TikTok, posting frequency, content diversity, formal strategies, and staff training (El-Gohary, 2012; Ngo et al, 2020; Tajudeen et al, 2018). Additionally, the engagement dimension measures effectively businesses connect with customers through likes, comments, shares, user-generated content, influencer collaborations, and response speed, reflecting stronger relationships and brand trust (Borah et al, 2022; Chatterjee and Kar, 2020; Qalati et al, 2022; Tajudeen et al, 2018). Moreover, the performance dimension evaluates business outcomes such as traffic, bookings, conversion rates, return on investment, and innovation indicators like data analytics and platform updates (Chatterjee and Kar, 2020; Ngo et al, 2020; Qalati et al, 2022). Together, these dimensions provide a comprehensive perspective on tourism SMEs implement and employ social media marketing to facilitate sustainable business development. Table 4 summarizes the key elements impacting social media marketing adoption identified in the literature.

Table 4. Measurement of social media marketing adoption based on the literature

Measurement Items	Source
Reliable internet access	(El-Gohary, 2012), (Borah et al, 2022), (Tajudeen et al, 2018)
Strategic marketing adoption planning	(El-Gohary, 2012), (Tajudeen et al, 2018)
Effective use of marketing resources	(El-Gohary, 2012), (Tajudeen et al, 2018)
Integration with traditional marketing activities	(El-Gohary, 2012), (Chatterjee and Kar, 2020), (Qalati et al, 2022), (Ngo et al, 2020)
Regularly updated and connected website	(El-Gohary, 2012), (Borah et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2020)
Accessing customer data through tourism platforms	(El-Gohary, 2012), (Tajudeen et al, 2018), (Ngo et al, 2020)
Automation to reduce manual input	(El-Gohary, 2012), (Tajudeen et al, 2018)
Searching for general, customer, and competitor information	(Qalati et al, 2022), (Tajudeen et al, 2018), (El-Gohary, 2012), (Borah et al, 2022), (Ngo et al, 2020)
Understanding customer needs and opinions	(Borah et al, 2022), (Tajudeen et al, 2018)
Conducting market research	(Borah et al, 2022), (El-Gohary, 2012), (Tajudeen et al, 2018)
Communicating and interacting with customers	(Qalati et al, 2022), (Borah et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2020)
Fostering two-way communication to strengthen relationships	(Chatterjee and Kar, 2020), (Borah et al, 2022), (Tajudeen et al, 2018), (Qalati et al, 2022)
Improving customer service and relationships	(Qalati et al, 2022), (Borah et al, 2022), (Tajudeen et al, 2018)
Enhancing collaboration with various stakeholders	(Qalati et al, 2022), (Chatterjee and Kar, 2020), (Ngo et al, 2020)
Developing marketing and branding strategies	(Tajudeen et al, 2018), (Borah et al, 2022)
Advertising and promoting tourism products and services	(Qalati et al, 2022), (Borah et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2020)
Encouraging referrals and word-of-mouth through social media	(Borah et al, 2022), (Tajudeen et al, 2018)
Building trust to enhance customer loyalty and retention	(Borah et al, 2022), (Tajudeen et al, 2018)
Using social media marketing tools to support customer transactions	(El-Gohary, 2012), (Tajudeen et al, 2018), (Qalati et al, 2022)

Source: Own research (2025)

However, the previous studies' social media marketing in CBTEs were fragmented and limited (Ngo et al, 2020; Rastegar and Zarezadeh, 2020). Current studies lack a theoretically grounded and empirically validated assessment instrument in the CBTE sectors, particularly in developing nations. The research evaluated measurements appropriate for CBTE sectors, which have been frequently identified in previous studies, and carried out qualitative research

to support the contextual validity of the measuring indicators. Thus, the study was undertaken with a pilot survey to determine the dimensions and measures of social media marketing adoption, followed by a quantitative survey.

2.3.5. CBTEs and social media marketing adoption

Multiple research findings have examined the adoption of social media on SME performance in both developed and developing nations, though most focus on developed contexts (Ahmad et al, 2019; Chatterjee and Kar, 2020; Tajudeen et al, 2018). However, empirical research on social media marketing adoption among tourism SMEs in developing nations remains limited, with none of them conducted in the CBTE sector. This limitation arises from significant contextual differences, particularly in organizational structures, resource availability, and environmental conditions (Ahmad et al, 2019). Table 5 provides key findings from studies on social media adoption and tourism SMEs.

Table 5. Empirical research on tourist SMEs' social media adoption and business performance

No.	Authors	Theory/Model	Title	Relationship
1	(Deb et al, 2024)	TAM Model	Promoting tourism business through digital marketing in the new normal era: a sustainable approach	Positive
2	(Khaki and Khan, 2024)	Grounded	Social Media Marketing and Its Influence on the Performance of Micro, Small, and Medium-Sized Tourism Enterprises: Mediation of Innovation Capabilities	Positive
3	(Najar et al, 2025)	Resource-Based View (RBV)	The influence of social media on the performance of medical tourism service providers: a mediated-moderated model	Positive
4	(Rambe, 2017)	Grounded	Social media marketing and business competitiveness: evidence from South African tourism SMMEs	Positive
5	(Mallick, 2023)	TAM Model	Promoting tourism through digital marketing	Positive
6	(Lopes et al, 2025)	Grounded	What is the impact of digital tools on hospitality business performance? the case of SME accommodation sector in Portugal	Positive
7	(Kerdpitak et al, 2022)	Grounded	Effect of competitive advantage, digital marketing to supply chain management on tourism business performance in Thailand	Positive

Source: Own research (2025)

Recent literature on digital marketing adoption among tourism SMEs highlights its role in enhancing marketing effectiveness, competitiveness, and sustainability performance (Deb et

al, 2024; Khaki and Khan, 2024; Lopes et al, 2025). Reviews of empirical and theoretical studies consolidate insights into the determinants and impacts of adoption (Mallick, 2023; Najar et al, 2025), while conceptual models, often based on the TAM framework, examine technology adoption processes in these enterprises (Deb et al, 2024; Mallick, 2023). Grounded theory further identifies organizational readiness, technological capability, and environmental factors as key influences on SMEs' digital marketing decisions and implementation (Kerdpitak et al, 2022; Khaki and Khan, 2024; Lopes et al, 2025).

In comparison with normal SMEs, CBTEs are typically small, community-owned, and socially driven, which affects their engagement with digital tools. Existing research on social marketing in CBTEs has primarily been qualitative, highlighting that social media is crucial for promoting CBTEs by reaching wider audiences, sharing authentic stories, and attracting responsible tourists (Mkono, 2016; Ngo et al, 2020). However, difficulties such as restricted knowledge of digital technology, poor infrastructure, and financial constraints continue to restrict adoption (Truong et al, 2014). Thus, future studies should evaluate the role of social media marketing adoption on sustainability performance in CBTEs by quantitative research, which provides a deeper and more context-specific comprehension of this evolving area.

2.4. Stakeholder collaboration

This section examines the importance of stakeholder participation in tourism, starting with the concept of stakeholders and their relevance in the sector. Then, exploring the collaboration among stakeholders supports the sustainability of CBTEs, with a special emphasis on the function of local government. The section concludes by discussing the measurement of local authority stakeholder involvement in promoting CBTE sustainability.

2.4.1. Concept of stakeholder in tourism

The concept of a stakeholder has evolved from the early definition, which described stakeholders as individuals and groups who have the ability to impact and also be influenced by the fulfillment of the goals of a business (Freeman, 1984). This perspective challenged the traditional management focus on shareholders and employees, promoting a broader view of organizations as interconnected systems of relationships (Ferede, 2019). Early tourism studies tended to focus on organisational stakeholders such as tourism businesses and local authorities (Duim and Caalders, 2008; Ferede, 2019; Snyman, 2014). Recent tourism research emphasizes the need to recognize communities, NGOs, international development agencies, and even the natural environment as key stakeholders (Ferede, 2019). However, scholars have

since recognised that numerous actors, both external and internal, play crucial roles in shaping tourism outcomes (Ferede, 2019).

Sustainable tourism relies heavily on effective collaboration among stakeholders who share a common interest in preserving resources while achieving economic and social benefits (Ferede, 2019). The destination community's support is especially critical, as their participation and positive attitudes influence environmental conservation and cultural preservation (Forstner, 2004; Manyara and Jones, 2007). The government's role in policy-making, regulation, and enforcement further ensures that tourism development aligns with sustainability principles (Connell et al, 2009; John Massyn, 2007; Ngo et al, 2018). Therefore, strong stakeholder collaboration is seen as essential for fostering a balanced and resilient tourism industry that benefits all parties involved (Ferede, 2019; Forstner, 2004; Manyara and Jones, 2007). Collaboration among tourism stakeholders can take different forms, depending on who holds decision-making power (Ferede, 2019).

2.4.2. Stakeholder collaboration for CBTE sustainability

The engagement of diverse stakeholders is crucial to the development of CBTE, particularly in the area of marketing (Ngo et al, 2020). CBTEs in these areas face both physical and cultural isolation from tourists because of local owners' limited marketing skills and the enterprises' remoteness and lack of resources (Ngo et al, 2019). In point of fact, a great number of the research argue that CBTEs require aid from outside sources for their marketing (Sakata and Prideaux, 2013). Partnering with various stakeholders not only offers CBTEs the collaborative benefits of partnership but also addresses their deficiencies in financial resources and business skills (Moscardo, 2008). Table 6 summarizes the stakeholders who may participate in the development of CBTE and the potential marketing support.

Tour operators are recognized as key stakeholders in the development and success of CBTEs due to their extensive market knowledge and industry experience (Ngo et al, 2018; Snyman, 2014). This stakeholder serves multiple roles, acting as marketing intermediaries, facilitators, and product development advisors for CBTEs (Ngo et al, 2018). Given their expertise, tour operators play an important role in linking CBTEs to tourism markets, helping local communities package, promote, and sell their tourism products effectively (Ngo et al, 2018). Consequently, joint-venture partnerships between CBTEs and tour operators have been widely encouraged in less-developed countries as a strategy to enhance market access and professionalize tourism operations (Ngo et al, 2018; Snyman, 2012).

Table 6. Stakeholders in collaboration with CBTEs

Stakeholders	Potential marketing assistance	References
Private companies	• Marketing intermediaries connect local entrepreneurs to markets, especially foreign markets. • Increase funding for the establishment of co-management collaborations	(Ngo et al, 2018), (Snyman, 2014), (Duim and Caalders, 2008)
NGOs/development agencies/donors	• Help with technical education and skill development • Try to make sure trade deals are fair • Encourage collaboration between CBTEs and other interested parties	(Zhuang et al, 2011), (Ngo et al, 2018),
Community-designated associations	• Promote, create, and distribute products for members. • Help with legislation, collective negotiations, training, and environmental monitoring	(Forstner, 2004), (Manyara and Jones, 2007) , (Ngo et al, 2018)
Local authorities/policy-makers	• Assist with improving infrastructure • Policy framework assistance	(Forstner, 2004), (Manyara and Jones, 2007), (Ngo et al, 2018)
Social enterprises	• Share market data with CBTEs • Provide marketing intermediary services • Facilitate information sharing among stakeholders	(Phi et al, 2016), (Ngo et al, 2018)

Source: Own edition from Ngo et al (2018)

In addition, non-economic stakeholders, including non-governmental organizations (NGOs), community associations, social enterprises, and CBTE networks, also play pivotal roles in supporting CBTE development (Ngo et al, 2018; Phi et al, 2016; Zhuang et al, 2011). NGOs and social enterprises, in particular, act as intermediaries that bridge local communities with external markets, promote ethical and sustainable tourism practices, and strengthen community ownership in tourism ventures (Ngo et al, 2018; Zhuang et al, 2011). Their involvement ensures that CBTEs not only achieve business viability but also maintain their social and environmental missions (Ngo et al, 2018).

Beyond private and non-profit partners, the government and social institutions are also instrumental in shaping the marketing outcomes of CBTEs (Ngo et al, 2018). Governments play a critical role by establishing supportive policy environments that guide CBTEs to be promoted and integrated into broader tourism strategies (Forstner, 2004; Ngo et al, 2018). This stakeholder can also influence the distribution of tourism benefits to communities, foster public-private collaborations, and provide essential resources such as information services and financial support (Forstner, 2004; Manyara and Jones, 2007; Ngo et al, 2018).

Overall, existing research indicates that CBTEs, especially in developing contexts, generally lack the expertise and resources to operate marketing independently during the initial phases of development (Ngo et al, 2018). As a result, external assistance and partnerships become indispensable for their success. However, reliance on paired relationships, such as partnerships with a single tour operator or funding agency, has proven insufficient for maintaining long-term sustainability of CBTEs (Ngo et al, 2018; Zhuang et al, 2011). Instead, a multi-stakeholder collaboration model is increasingly advocated to address the complex and multidimensional nature of CBTE marketing (Ngo et al, 2019; Ngo et al, 2020). Despite this recognition, the literature provides limited insight into multiple stakeholders interact and coordinate within CBTE marketing networks. Specifically, there exists a gap in comprehending the roles, positions, and facilitation mechanisms of these stakeholders in promoting CBTE sustainability.

2.4.3. The role of local authority stakeholders in tourism

Local government involvement in tourism takes many forms, including environmental planning, policy regulation, financing, and infrastructure development (Connell et al, 2009; Ferede, 2019; Suansri, 2003). Both local and central governments also build institutional capacity, manage tourist flows, and establish protected areas to safeguard natural and cultural resources (Ferede, 2019). By adopting proactive tourism planning approaches, governments can better understand stakeholder interests and balance competing needs (Manyara and Jones, 2007). This oversight is essential because tourism often relies on common resources, such as land, water, and cultural heritage that must be shared responsibly among multiple user groups (Kontogeorgopoulos et al, 2014; Shone et al, 2016; Truong et al, 2014).

Successful government-led tourism development requires understanding and engaging diverse stakeholders, including the communities, private sector, and policymakers, to ensure balanced and sustainable outcomes (Ferede, 2019; Murphy, 1985; Park et al, 2009). Thus, incorporating stakeholder theory into government strategies facilitates the alignment of tourism development with community requirements and long-term sustainability objectives (Ferede, 2019; Manyara and Jones, 2007; Ngo et al, 2018; Truong et al, 2014). Therefore, local governments are important to the promotion and execution of tourism policies, owing to the substantial effects associated with the development of tourism within a destination (John Massyn, 2007; Saito and Ruhanen, 2017). Furthermore, governments have the authority and capacity to ensure political stability, enact legal and financial regulations, and provide

security and infrastructure, which are essential for tourism growth (Connell et al, 2009; John Massyn, 2007; Ngo et al, 2018).

Although many governments have enthusiastically embraced the concept of sustainable development, its actual implementation in the tourism sector remains limited (Saito and Ruhanen, 2017; Truong et al, 2014). Under neoliberal agendas, local governments often prioritize tourism growth to achieve economic objectives (Shone et al, 2016). This faces conflicting roles in balancing economic imperatives with broader social and environmental objectives, a challenge compounded by regional environmental management pressures (Shone et al, 2016; Truong et al, 2014). Moreover, bureaucratic inefficiencies, corruption, and cumbersome administrative processes have further constrained the effective development of CBT initiatives (Saito and Ruhanen, 2017; Stevenson et al, 2008). Despite these challenges, local governments remain pivotal in shaping tourism development strategies and guiding the industry's direction (John Massyn, 2007; Saito and Ruhanen, 2017)

2.4.4. Measurement of local authority stakeholders for CBTE sustainability

Both local and central governments play an important part in managing the complex and multifaceted aspects of tourism. Their influence spans key policy areas, including infrastructure, transport, and spatial planning, which directly affect tourism development (Connell et al, 2009; Ngo et al, 2018). Governments also establish frameworks for investment, regulate land access, and integrate tourism into broader development strategies (John Massyn, 2007; Ngo et al, 2018). By providing political stability, legal structures, and financial frameworks, governments enable sustainable tourism growth that aligns with environmental protection and community well-being (John Massyn, 2007; Luan et al, 2023; Ngo et al, 2018). In fragmented sectors such as CBT, governments are uniquely positioned to implement tools, such as measurement, control, and command, economic incentives, voluntary, and supporting mechanisms, that facilitate sustainable tourism practices (John Massyn, 2007; Wight, 2002).

Local authorities are widely recognized as primary stakeholders in planning and managing tourist destinations (John Massyn, 2007; Luan et al, 2023; Ngo et al, 2018; Saito and Ruhanen, 2017). Their involvement is essential due to the complexity of tourism activities, the fragmented private sector, decentralized governance, and the fact that tourists respond to destination attributes rather than individual products (John Massyn, 2007; Saito and Ruhanen, 2017). Local authorities are responsible for formulating regional tourism policies, establishing site development principles, guiding tourist services, and setting improvement standards (John Massyn, 2007; Ngo et al, 2018; Wight, 2002). Their coordination helps create

comprehensive, practical, and sustainable tourism strategies that balance economic, environmental, and social goals. Table 7 summarizes the key factors related to local authority stakeholders in small tourism businesses.

Table 7. Measurement of local authority stakeholders based on the literature

Factors	References
Supporting land-use planning for tourism development	(Truong et al, 2014)
Safety and environmental regulations	(Ngo et al, 2018), (Ngo et al, 2020)
Offering support for financial and credit programs	(Luan et al, 2023), (Truong et al, 2014)
Training programs for locals	(Truong et al, 2014), (Ngo et al, 2020), (Manyara and Jones, 2007), (Manyara and Jones, 2007)
Linking with other tourism businesses	(Ngo et al, 2020), (Manyara and Jones, 2007)
Information provision	(Manyara and Jones, 2007)
Tourism Planning and Development	(Ngo et al, 2018), (Truong et al, 2014), (Manyara and Jones, 2007), (Manyara and Jones, 2007)
Regulation and Policy Implementation	(Ngo et al, 2018), (Ngo et al, 2020), (Manyara and Jones, 2007)
Economic Development and Support	(Ngo et al, 2018), (Ngo et al, 2020), (Kontogeorgopoulos et al, 2014)
Community Engagement and Capacity Building	(Ngo et al, 2018), (Manyara and Jones, 2007)
Infrastructure and Service Provision	(Shone et al, 2016), (Truong et al, 2014), (Kontogeorgopoulos et al, 2014)
Environmental and Cultural Protection	(Shone et al, 2016), (Ngo et al, 2018)
Policy framework assistance	(Ngo et al, 2018), (Truong et al, 2014)
Support programs for tourism businesses	(Ngo et al, 2018), (Ngo et al, 2020), (Manyara and Jones, 2007)
Coordinators to set policies or propose strategies	(Shone et al, 2016), (Ngo et al, 2020), (Manyara and Jones, 2007)
Stimulation for tourism	(Ngo et al, 2018), (Truong et al, 2014), (Manyara and Jones, 2007), (Kontogeorgopoulos et al, 2014)
Facilitator role for local interests	(Shone et al, 2016), (Luan et al, 2023), (Manyara and Jones, 2007), (Manyara and Jones, 2007)
Lead stakeholder in tourism governance	(Shone et al, 2016), (Ngo et al, 2018), (Truong et al, 2014), (Manyara and Jones, 2007)

Source: Own research (2025)

Despite the acknowledged significance of local authorities, the current literature lacks a theoretically grounded and empirically validated framework to measure their influence, particularly within the context of CBTEs. To address this gap, this study first identified key measures relevant to local authority stakeholders of CBTEs based on consistent evidence from existing literature. To ensure contextual validity, a qualitative study was then conducted to

refine and justify these measurement indicators. Following this, a pilot survey was organized to find out the dimensions and measures of local authority stakeholders, which informed the subsequent quantitative survey.

2.5. Vietnam as the study context

This section situates the research within the context of Vietnam, offering a comprehensive overview of the country's tourism industry, the evolution and development of CBT, and the specific characteristics, opportunities, and challenges of CBTEs operating in rural and mountainous regions. It highlights that Vietnam's cultural diversity, natural resources, and local community dynamics shape the implementation and sustainability of CBT initiatives.

2.5.1. Overview of Vietnam tourism

Vietnam, a coastal country in Southeast Asia, offers a diverse and rich array of tourism resources, including World Heritage-listed sites, handicraft villages, traditional temples, scenic landscapes, and ethnic communities across plains, coastal areas, and mountains (Sinh et al, 2024b). According to Vietnam's Ministry of Foreign Affairs (MOFA), by 2020, the country had over 41,000 landscapes and monuments, with more than 4,000 designated as national monuments and over 9,000 identified at the regional level (MOFA, 2018). UNESCO has recognized Vietnam's heritage with nine biosphere reserves, thirteen intangible cultural elements, and numerous national parks. The north features limestone mountains and famous karst caves, while its 125 beaches rank 27th globally. Altogether, Vietnam's rich natural beauty, cultural heritage, and diverse geography make it a country with vast and distinctive tourism potential (MOFA, 2018).

Tourism has played a vital part in driving Vietnam's national economy, reducing poverty, enhancing social welfare, preserving cultural and environmental values, and supporting political stability. Since the implementation of the Renovation Policy in 1986, Vietnam has transformed into one of Southeast Asia's most attractive and fastest-growing tourism markets (Suntikul, 2005). Based on the Vietnam Ministry of Culture, Sports and Tourism, the country welcomed approximately 17.5 million foreign visitors, representing a 38.9% rise in comparison to the same period in 2023, and 110 million domestic tourists, reflecting a 1.6% rise over the same timeframe in 2023. Total revenue from tourism is estimated at approximately 840 trillion Vietnam dong, representing a 23.8% rise over the same period in 2023, and accounting for 7.38% of the national GDP (MOCST, 2025). Figure 2 provides the map of tourist attractions in Vietnam.

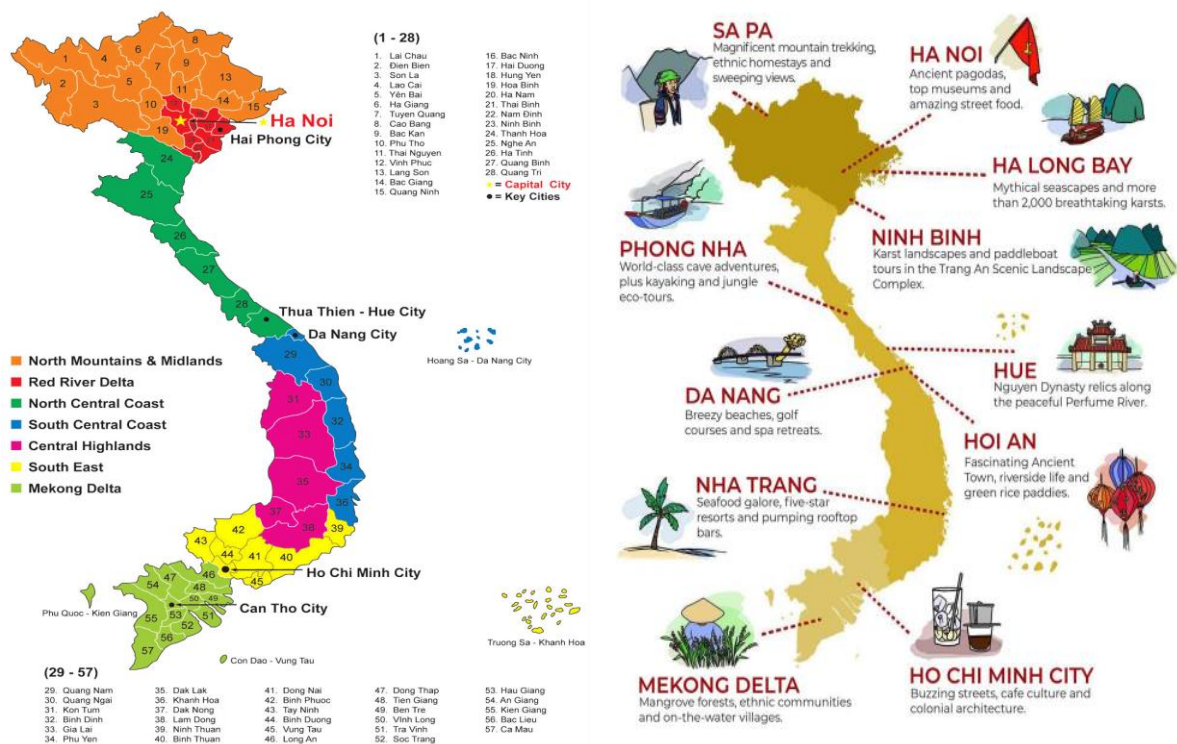


Figure 2. Vietnam tourist attractions

Source: Own edition from Sinh et al (2024b)

Tourism in Vietnam has grown rapidly in the previous two decades, establishing the nation as one of the most dynamic destinations for travel across the world. In 2024, Vietnam ranked fourth globally among the fastest-growing travel destinations according to the UNWTO and was listed 15th among the best countries for travelers in the Condé Nast Traveler Readers' Choice Awards (MOCST, 2024). The Vietnamese government has introduced various tourism development policies to promote local initiatives and projects that allow visitors to experience authentic Vietnamese life (Gillen, 2016). As Vietnam's tourism industry gains increasing international recognition, its destinations have become highly attractive to global travelers (MOCST, 2025). Improving tourist quality and competitiveness is important as emerging countries become service-based economies. Therefore, Vietnam's tourism sector needs to employ a multifaceted approach to assess and improve service quality to strengthen overall worldwide competitiveness (Michaud and Turner, 2017).

2.5.2. CBT development in Vietnam

Vietnam's tourism sector is poised for expansion owing to the nation's favorable climate, strategic location, and abundant natural resources. A total of 53 ethnic groups form integral components of Vietnamese culture. Therefore, Vietnam offers plenty of opportunities for the advancement of tourism (Gillen, 2016). This growth creates opportunities for CBT

development, as many international tourists are attracted to cultural experiences such as visiting handicraft villages, exploring natural landscapes, experiencing rural life, and discovering the unique cultures of ethnic minorities (Le et al, 2016). The initial Vietnamese CBT initiatives in 1985 primarily targeted peripheral regions and concentrated on Eastern European markets (Le et al, 2016). Regarding the Vietnam National Administration of Tourism in 2020, Vietnam hosted approximately 300 CBT villages and communities (VNNews, 2025).

Among Vietnam's diverse tourist attractions, CBT activities have become increasingly appealing to travelers, reflecting the increased demand for responsible and authentic travel experiences. The rise of CBTEs aligns with this trend, as visitors seek meaningful engagement with local culture and nature. According to the AC Nielsen survey in 2010, it revealed that 65% of tourists in Vietnam wanted to experience local culture, 54% preferred natural settings, and 84% aimed to visit scenic destinations. Moreover, 48% were willing to spend more for cultural experiences, and 97% would spend extra on trips that support the environment and local communities (ESRT, 2013). The ESRT report further identified key market segments for CBT initiatives, including international independent travelers, international group travelers, urban weekend tourists, and domestic backpackers, highlighting the broad and diverse appeal of CBT in Vietnam's evolving tourism landscape (ESRT, 2013).

CBT development in Vietnam functions within a communist system, where the central government maintains strong control over tourism regulation (Michaud and Turner, 2017). The Vietnamese government has played a decisive role in shaping community involvement in tourism and promoting CBT as a method to alleviate poverty. However, early negligence by tourism authorities toward the opportunities of tourism for community development made local participation nearly impossible. Since the 2000s, tourism has been officially established as a key industry driving national economic growth and poverty reduction under the socio-economic development strategy 2001–2010 (Truong et al, 2014). While several policies were introduced to support CBT and the establishment of CBTEs, the top-down policy approach has faced multiple challenges. The legal framework remains insufficient and fragmented, with overlapping and unclear policies that complicate the process for CBT projects to meet legal requirements (ESRT, 2013; Le et al, 2016).

Following the government's open-door policy, CBT initiatives expanded into more peripheral regions, targeting both domestic and international tourists with significant support from non-governmental organisations (NGOs) and development agencies such as FFI (Fauna and Flora

International), SNV (Netherlands Development Organization), IUCN (International Union for Conservation of Nature), AECI (Spanish Development Agency), and WWF (World Wildlife Fund/World Wide Fund for Nature). These groups promoted CBT as an alternative tourism model for sustainable development based on pro-poor principles, aiming to create equitable benefit-sharing mechanisms, generate jobs for ethnic minorities, preserve culture, protect the environment, and enhance local skills (ESRT, 2013; Huxford, 2010). Despite these achievements, many donor-supported CBTEs have faced difficulties sustaining operations once external funding ended, reflecting broader global challenges in maintaining the long-term viability of aid-dependent CBT models (Huxford, 2010).

2.5.3. CBTE in the rural and mountainous regions of Vietnam

CBTEs in Vietnam are most highly concentrated in the Northwest region due to its remarkable ethnic diversity, distinctive landscapes, and strong preservation of traditional culture (MOCST, 2024). This region is home to over fifty ethnic groups, such as the Hmong, Dao, and Thai, whose traditions, languages, and lifestyles create a culturally rich setting that attracts visitors seeking authentic experiences (MOCST, 2024). Through homestay experiences and community-led tours, tourists gain opportunities to engage in local farming practices, traditional cuisine, and handicraft production, thereby fostering cross-cultural exchange and promoting rural livelihoods (Cong, 2024; Truong et al, 2014). Furthermore, the continued maintenance of traditional architecture, crafts, and rituals among local communities enhances the authenticity and sustainability of tourism practices (Cong, 2024; Ngo et al, 2018). Therefore, these factors position northern Vietnam as the country's principal hub for CBT, integrating cultural preservation with sustainable rural development.

CBTEs in Vietnam take a variety of forms, such as homestays, craft villages, and social enterprises that embed local communities directly in tourism value chains. The discussions of CBTE marketing in Vietnam are discursive and divergent. The donor-aided CBTEs receive marketing support from development agencies and NGOs (Ngo et al, 2018). For example, in Lao Cai province, homestay models in Ta Van Chu, Cat Cat, and Cao Son have enabled ethnic Dao and Mong households to earn income, revive traditional crafts (brocade weaving), and work with NGOs for marketing and product development (Cong, 2024). In Thua Thien Hue, coastal CBT initiatives combine social entrepreneurship with environmental and cultural preservation despite resource and institutional challenges (Van Tuyen et al, 2023). Meanwhile, the "Action on CBT" initiative connects ethnic minority villages with tour operators, builds local capacity, and ensures profits support community infrastructure and

livelihoods. Such enterprises succeed when strong social capital and effective collaboration with NGOs, government, and the private sector are present. However, constraints such as insufficient infrastructure, shortage of skilled human resources, lack of marketing reach, and inequitable benefit distribution often limit their effectiveness (Van Tuyen et al, 2023).

The Vietnamese government has increasingly supported digital and social media marketing for CBTEs through policies, training, and collaborations. For example, the Center for Rural Economic Development (CRED) organised training for over 80 people from ethnic Dao, Giay, H'Mong, and Nung groups in Sa Pa to learn about online marketing channels and social networks, enabling them to promote their tourism services online (CRED, 2022). Quang Ninh Province has implemented the national Digital Transformation Programme (2021–2025) to develop “smart rural areas” through digital mapping of tourism products, virtual fairs, social media promotion, and unified digital databases that enhance community marketing effectiveness (MARD, 2022). The Ministry of Culture, Sports and Tourism (MOCST) has also organized forums and training to help rural tourism cooperatives adopt digital tools (MOCST, 2021). In addition, the Vietnam National Authority of Tourism (VNAT) launched platforms like “Vietnam Travel” and partnered with TikTok to train SMEs in digital content and advertising (VNAT, 2025). These initiatives help lower barriers for CBT enterprises to engage in digital marketing, although challenges persist in capacity, infrastructure, and aligning local efforts with national strategies.

2.6. Overall Research Gap

Social media marketing has been acknowledged as a vital aspect within academia, with numerous research studies conducted in the tourism industry. In particular, prior literature on social media marketing has analyzed SMEs from numerous viewpoints. For example, determinants influencing the adoption of social media marketing (Dahnil et al, 2014; El-Gohary, 2012), the use of social media to enhance business success (Borah et al, 2022; Chatterjee and Kar, 2020; Tajudeen et al, 2018), social media utilization as an effective marketing technique (Öztamur and Karakadılar, 2014), as well as the examination of mediating factors (Borah et al, 2022; Chatterjee et al, 2024) and moderators in social media marketing (Borah et al, 2022; Fan et al, 2021). Currently, there are limited studies exploring the adoption of social media marketing within the tourism SME sector (Dahnil et al, 2014; El-Gohary, 2012; Tan et al, 2018), and particularly, none of these studies have specifically investigated this within the context of CBTEs. Despite the growing significance of social

media marketing and the motivation of many CBTEs to adopt it, a large number still fail to utilize these platforms effectively (Sugandini et al, 2019).

The literature review indicated that several studies have identified an identical connection between the two theories. Specifically, multiple studies have employed TAM and IDT as an integrated framework to evaluate the various elements that influence tourism technology adoption (El-Gohary, 2012; Giovanis et al, 2012; Sujood et al, 2024). Furthermore, TAM and UTAUT are two prominent and extensively utilized models in research related to social networking sites (Ali et al, 2024; Chatterjee et al, 2024; Chatterjee and Kar, 2020; Tan et al, 2018). In addition, several studies have employed TAM and Interactivity theory in combination to examine the various factors influencing the adoption of new technologies in the tourism sector (Abdullah, 2016; Liu and Shrum, 2002; Odoo et al, 2017; Tan et al, 2018). However, various studies on social media marketing in tourism businesses have simply implemented and combined two theories. Moreover, there is a lack of literature applying the TAM model within the field of social marketing in CBTEs. This highlights the gap in the domain of social media marketing within CBTEs in developing nations by extending the TAM model and integrating it with other models. Therefore, this study fills this gap by extending TAM and integrating it with UTAUT, IDT, and Interactivity Theory to create a comprehensive research model specifically designed for CBTEs in developing countries.

The use of social media marketing effectively supports the sustainable development of tourism SMEs (Berhanu and Raj, 2024; Borah et al, 2022; Sharma and Sharma, 2024). The existing studies primarily concentrate on the adoption and sustainability outcomes within SME tourism broadly (Deb et al, 2024; El-Gohary, 2012; Sharma and Sharma, 2024); none of them specifically investigated this relationship in the context of CBTEs. Previous qualitative studies indicated that social media marketing greatly affects CBTEs (Ngo et al, 2018; 2020); however, limitations in these studies highlight the need for quantitative research to examine its impact on CBTE outcomes. Therefore, this research expands the practical application of social media marketing by considerably extending its impact to long-term success within the CBTE framework.

The idea of business sustainability performance is well established in the academic field; however, CBTEs experience challenges in measuring sustainability performance (Ngo et al, 2018). The literature on sustainability performance in CBTEs lacks a standardized, comprehensive framework for assessing social, environmental, and economic impacts, due to limited data, capacity constraints, and fragmented research methodologies (Manyara and

Jones, 2007; Ngo et al, 2019). Most prior research on sustainability performance primarily emphasizes qualitative methods, such as in-depth interviews (Manyara and Jones, 2007; Ngo et al, 2018). However, a lack of theoretically grounded and empirically supported literature has contributed to the use of quantitative methods for analyzing sustainability performance in CBTEs. Consequently, this research integrates the economic, environmental, and social aspects of sustainability performance to examine the connection between social media marketing and sustainability outcomes in CBTEs.

In addition to investigating the antecedents of social media marketing adoption, the research also assessed the influence of social media marketing adoption on sustainability performance. Previous research has found that social media marketing adoption affects small tourism businesses' long-term performance (Deb et al, 2024; Oyewobi et al, 2021; Sharma and Sharma, 2024). In the context of CBTEs, sustainability performance has been assessed using several key indicators, such as business profitability, visitor engagement, and product innovation (Ngo et al, 2018). There is a limited empirical and theoretical literature related to the acceptance and perception of social media marketing in relation to the adoption of CBTEs (Ngo et al, 2020). In particular, the literature employing qualitative methods has demonstrated that social media significantly supports the growth of CBTEs (Mkono, 2016; Ngo et al, 2020).

Previous research indicates that stakeholder collaborations are often regarded as indicators of CBTE performance and are extensively analyzed (Ngo et al, 2019; Ngo et al, 2018). Establishing marketing partnerships with external stakeholders is vital for the sustained success of CBTEs (Ngo et al, 2018). Thus, engaging with tourism stakeholders to promote a CBTE can improve sustainability performance (Duim and Caalders, 2008; Ngo et al, 2018; Snyman, 2014). However, prior research has emphasized that social media marketing plays a crucial role in promoting CBTEs through qualitative methodologies, including in-depth interviews (Ngo et al, 2018) and netnographic analysis (Mkono, 2016). Furthermore, to the authors' knowledge, no research has quantitatively evaluated the moderating role of stakeholder collaboration, especially local government, on the connection between social media marketing adoption and sustainability performance using a quantitative methodology.

2.7. Underpinning Theories and Justification

The theory is a methodical and organized gathering of ideas that explains and predicts facts. It can help researchers comprehend the correlations between variables, which can help them formulate hypotheses, conduct studies, and interpret their findings. Based on the findings derived from the literature in section 2.3.1, this study will expand and integrate the

frameworks of TAM, UTAUT, IDT, and the Interactivity theory to develop the research model, which forms the theoretical framework of this research, as illustrated in Figure 3.

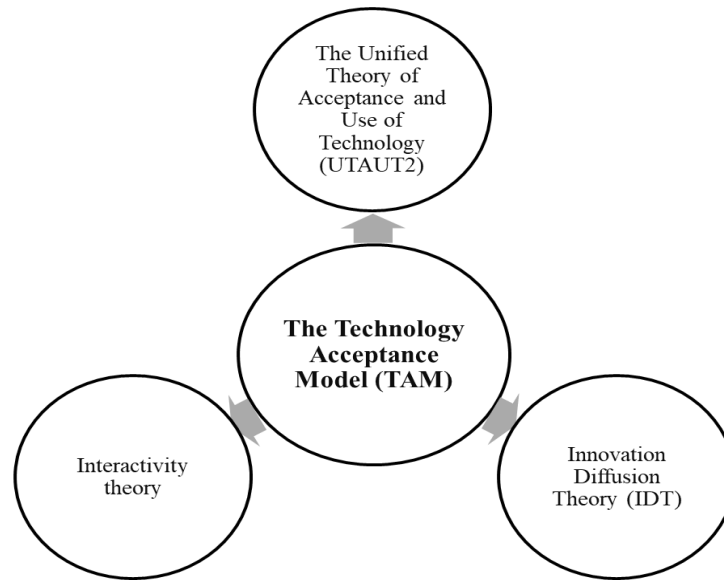


Figure 3. Foundational Theories

Source: Own construction (2025)

The Technology Acceptance Model (TAM) (Davis, 1989) remains one of the most powerful models for analysing people's acceptance of technology (Chatterjee et al, 2024; Chatterjee and Kar, 2020; Dahnil et al, 2014). TAM has been empirically validated for over two decades across numerous technologies, including applications in the tourism sector (Berhanu and Raj, 2024; Chu et al, 2020; Deb et al, 2024). Although the extended TAM models are tested and regarded as effective in examining technology acceptability, they are more appropriate for studying technology adoption by individuals and organizations within the tourism sector (El-Gohary, 2012). In tourism SMEs, where owners typically make key decisions, organizational adoption behavior often reflects individual perceptions and attitudes (El-Gohary, 2012).

The Unified Theory of Acceptance and Use of Technology (UTAUT) was introduced as a synthesis of several different models (Venkatesh et al, 2003). The UTAUT model may provide substantial explanatory power concerning behavioral intention and practical application (Holden and Karsh, 2010). However, UTAUT has faced criticism for its overwhelming focus on individual user perspectives, potentially overlooking broader social and organizational elements impacting technology adoption (Dwivedi et al, 2019). Consequently, UTAUT2 was developed (Venkatesh et al, 2012). Despite being expanded to include TAM2, TAM3, and UTAUT, TAM remains a valid model and is regularly used to forecast and explain new technology adoption (El-Gohary, 2012). Therefore, this study employed the TAM model

(Perceived ease of use and Perceived usefulness) and UTAUT2 (Facilitating conditions, Price value), along with additional independent variables identified as significant predictors (Chatterjee and Kar, 2020).

In addition, the Innovation Diffusion Theory (IDT) (Rogers, 1983) is one of the most commonly accepted frameworks for studying the diffusion of new technologies and innovations (El-Gohary, 2012). It has been applied extensively across various contexts, including tourism, to explain technologies, including e-commerce and digital platforms, are adopted to achieve business objectives (Afuah, 2014; El-Gohary, 2012; Gu et al, 2019). Despite originating from distinct domains, there exists a complementary connection between TAM and IDT. Many studies have utilized both theories to estimate the elements that affect the adoption of modern technologies (El-Gohary, 2012; Giovanis et al, 2012). In particular, the primary constructs relevant to this relationship are three key elements: perceived ease of use (EOU), perceived usefulness (PEU), and compatibility (COM) (Chatterjee and Kar, 2020; El-Gohary, 2012). Nevertheless, similar to TAM, IDT does not fully capture external and organizational-level factors that influence social media marketing adoption, suggesting the need for an integrated model by including other factors (El-Gohary, 2012; Gu et al, 2019).

Furthermore, Interactivity Theory (Rafaeli, 1988) emphasizes the process of message exchange and highlights the dynamic relationship between users and technology (Demangeot and Broderick, 2006). In tourism marketing, interactivity is particularly vital as it enhances engagement and strengthens consumer relationships (Tan et al, 2018). Research indicates that interactivity consists of two fundamental elements: two-way communication (social interactivity) and user control (system interactivity) (Bao et al, 2016; Tan et al, 2018). Numerous studies have integrated TAM with Interactivity theory to explore how interactive features influence digital technology application in tourism (Liu and Shrum, 2002; Odoom et al, 2017; Tan et al, 2018). These studies reveal that interactivity significantly contributes to technology acceptance by enhancing user experience and perceived usefulness.

The literature reveals that several studies have established strong connections between two theories in tourism. Particularly, numerous studies have frequently integrated the TAM with IDT theory to investigate elements affecting the acceptance of new technology (El-Gohary, 2012; Giovanis et al, 2012; Sujood et al, 2024). Similarly, TAM and UTAUT theory have been widely applied in studies on social networking site usage (Ali et al, 2024; Chatterjee et al, 2024; Chatterjee and Kar, 2020; Tan et al, 2018), while other research has combined TAM with Interactivity theory to investigate technology adoption (Abdullah, 2016; Liu and Shrum,

2002; Odoom et al, 2017; Tan et al, 2018). However, most research has focused only on two-theory combinations and has lacked the TAM model in social media marketing within CBTEs. This creates a significant gap in understanding social media marketing adoption among CBTEs in developing countries. To cross this gap, this study extends the TAM model by integrating it with UTAUT, IDT, and Interactivity theory, thereby proposing a comprehensive framework created specifically for CBTEs in developing contexts.

2.8. Research Framework

This research developed an initial framework regarding gaps discovered in the literature and insights from a qualitative study of CBTEs, recognizing that both social media marketing adoption and sustainability performance are shaped by regional and cultural contexts (Ngo et al, 2018; Qalati et al, 2022; Tajudeen et al, 2018). As a result, contextualising the discovered features and factors required a review of the literature on these variables. Additionally, the majority of studies examining social media marketing adoption and sustainability performance in CBTEs employ qualitative methods, such as in-depth interviews (Ngo et al, 2018) and netnographic analysis (Mkono, 2016). This research underscores the critical role of social media in advancing CBTEs. However, the lack of literature employed quantitative methodologies or SmartPLS to examine the adoption of social media marketing and its effect on sustainability performance. Figure 4 outlines the study framework for this research.

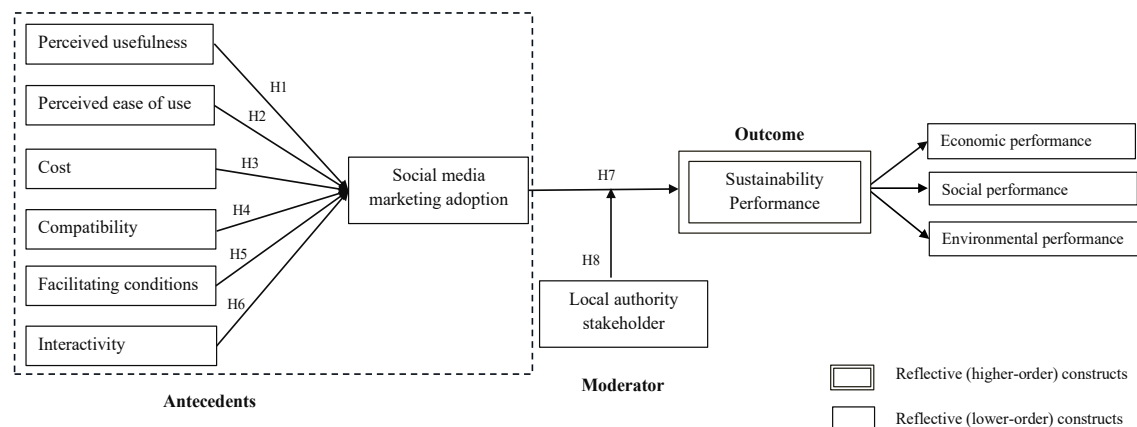


Figure 4. Proposed framework for research

Source: Own construction (2025)

According to existing research, variables influencing social media marketing adoption, as identified through scales from the literature (perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, and interactivity) (Chatterjee and Kar, 2020; El-Gohary, 2012; Tajudeen et al, 2018). Sustainability performance dimensions were examined depending on the triple-bottom-line concept (social, economic, and environmental

dimensions), with variables derived from prior research (Ngo et al, 2018; Qalati et al, 2022; Tajudeen et al, 2018), combined with qualitative surveys and a pilot survey. Similarly, the dimensions of social media marketing adoption were established based on prior investigations (Qalati et al, 2022; Tajudeen et al, 2018) and validated through qualitative exploration and pilot testing. However, because the concept of local authority stakeholders remains emergent and lacks consensus among scholars, the study derived its indicators and dimensions from the tourism and CBT literature (Ngo et al, 2019; Ngo et al, 2018), supplemented by qualitative research and a pilot survey to ensure contextual relevance and validity.

2.9. Hypothesis Development

2.9.1. Factors affecting social media marketing adoption (RQ1)

Literature identifies key factors motivating CBTEs to adopt social media, including perceived simplicity of use, perceived usefulness, compatibility, facilitating conditions, interactivity, and cost, as previously identified in the literature review (Chatterjee et al, 2024; El-Gohary, 2012). Each of these factors will be analyzed independently to formulate the hypotheses and create the conceptual framework (Figure 4).

2.9.1.1. Perceived usefulness (PEU)

According to the TAM theory, perceived usefulness (PEU) is regarded as a non-physical metric representing a user's perception (as CBTEs) that adopting a new technology, including social media marketing, would enhance their overall performance (Davis, 1989). This result demonstrates the fundamental principle underlying TAM (Davis, 1989). Numerous studies suggest that PEU significantly enhances social media marketing adoption by SMEs in the tourism industry (Deb et al, 2024; El-Gohary, 2012; Sugandini et al, 2019). The variable PEU is anticipated to have a substantial impact on the adoption of social media marketing by CBTEs. This hypothesis is formulated based on the provided inputs:

H1: There is a significant impact of perceived usefulness (PEU) on social media marketing adoption (SMA).

2.9.1.2. Perceived ease of use (EOU)

The aspect is also evident in the TAM model, which represents its core concept (Davis, 1989). The model suggests that when a technology is viewed as user-friendly, simple, and requiring little effort, users are more likely to adopt it, especially if it provides clear benefits (Chatterjee et al, 2024; Chatterjee and Kar, 2020). The concept reflects both simplicity and users' trust in their capacity to utilise the system efficiently, which strongly influences their adoption

decisions (Chatterjee and Kar, 2020; El-Gohary, 2012; Sugandini et al, 2019). For CBTEs, if social media marketing is considered easy to understand and apply, owners are more likely to adopt it. Therefore, perceived ease of use is expected to positively affect social media marketing adoption among CBTEs. This results in the formulation of the following hypothesis.

H2: There is a significant impact of perceived ease of use (EOU) on social media marketing adoption (SMA).

2.9.1.3. Cost (COS)

Regarding the UTAUT2 model (Venkatesh et al, 2012), cost is a significant variable influencing social media marketing adoption. A CBTE is a micro-enterprise situated in a remote or rural area within a less-developed region (Ngo et al, 2020); therefore, users tend to practice caution and consideration regarding the cost implications of every choice (El-Gohary, 2012). Previous studies also emphasize a causal relationship between cost and technological adoption (Chatterjee et al, 2024; El-Gohary, 2012). Tourism SMEs might be reluctant to implement social media marketing unless it proves to be more cost-efficient than traditional approaches (Chatterjee and Kar, 2020; El-Gohary, 2012). Through social media, CBTEs can efficiently engage with their respective travelers at a comparatively lower expense (El-Gohary, 2012; Rambe, 2017). The following hypothesis was suggested in the prior discussion.

H3: There is a significant impact of Cost (COS) on social media marketing adoption (SMA).

2.9.1.4. Compatibility (COM)

Compatibility (COM) describes the degree to which the adoption of new technology, particularly social media marketing in CBTEs, matches existing practices (Chatterjee and Kar, 2020; El-Gohary, 2012). A technology that suits the organization's current technology, infrastructure, beliefs, and desirable timetables is more likely to be successfully adopted (Tajudeen et al, 2018). In practical terms, CBTE owners are likely to employ SMM technology if they perceive it is compatible with their current experience (Chatterjee and Kar, 2020; Hsu et al, 2007). Consequently, compatibility should be considered a factor that may motivate CBTEs to adopt social media to enhance their economic sustainability (Chatterjee et al, 2024; Chatterjee and Kar, 2020; El-Gohary, 2012), in accordance with IDT theory (Rogers, 1983). Regarding this evidence, the hypothesis is proposed.

H4: There is a significant impact of compatibility (COM) on social media marketing adoption (SMA).

2.9.1.5. Facilitating conditions (FCO)

Facilitating conditions (FCO) describe the extent to which an individual perceives that sufficient infrastructure, including technological resources and managerial support, is available to enable the effective use of a novel system (Chatterjee and Kar, 2020). Previous studies indicated that facilitating elements play a crucial part in shaping the adoption behavior of innovative technologies (Chatterjee et al, 2024; Chatterjee and Kar, 2020; El-Gohary, 2012). If CBTE owners receive adequate training in the use of this new approach (social media marketing) and the current situation is favourable and encourages their acceptance, they will implement it (Chatterjee et al, 2024; El-Gohary, 2012). Therefore, facilitating conditions, a component of the UTAUT2 model (Venkatesh et al, 2012) utilized to analyze adoption behavior, may also be advantageous for CBTEs in implementing social media marketing (El-Gohary, 2012). The previous analysis indicates the following hypothesis.

H5: There is a significant impact of facilitating conditions (FCO) on social media marketing adoption (SMA).

2.9.1.6. Interactivity (INT)

The important role of interactivity in online commerce and related technologies has prompted both practitioners and scholars to broaden their knowledge of the notion and to apply it effectively (Tajudeen et al, 2018). Social media is considered a platform for interaction that enables two-way interaction rather than one-way dissemination of information to a community (Kiráľová and Pavlíčka, 2015; Tajudeen et al, 2018). The interactivity component has been previously analyzed within the technological paradigm of interactivity theory (Tajudeen et al, 2018). Therefore, interactivity factor, a component of interactivity theory (Rafaeli, 1988), utilized to examine adoption behaviors, may also prove beneficial for CBTEs in performing social media advertising approaches. Therefore, the hypothesis is articulated as follows to facilitate empirical testing of this relationship.

H6: There is a significant impact of interactivity (INT) on social media marketing adoption (SMA).

2.9.2. Outcomes of social media marketing adoption (RQ2)

Previous research has shown a significant positive connection between social media marketing adoption and the sustainability performance of tourism SMEs (Deb et al, 2024; Oyewobi et al, 2021; Sharma and Sharma, 2024). For CBTEs, sustainability performance is measured by analysing a business's performance concerning the economy, society, and environment (Ngo et al, 2018). However, empirical and theoretical studies exploring CBTEs'

perception of social media marketing remain limited (Ngo et al, 2020). Qualitative findings further suggest that social media plays a crucial part in supporting CBTEs and enhancing their visibility among target audiences (Mkono, 2016; Ngo et al, 2020). Therefore, applying a quantitative method to empirically evaluate the connection between social media marketing adoption and sustainability performance, this study formulates the next hypothesis.

H7: There is a significant impact of social media marketing adoption (SMA) on sustainability performance (SUSP).

2.9.3. The moderating role of local authority stakeholder (RQ3)

CBTEs in underdeveloped countries often encounter major challenges in adopting social media platforms for their operations (Ngo et al, 2020). To address these difficulties and achieve long-term success, establishing marketing collaborations with external stakeholders, particularly local authorities, is essential (Ngo et al, 2018; 2020). Prior studies show that local governments have a vital role in the growth of tourism by implementing policies (Mkono, 2016; Ngo et al, 2020), and providing essential political, legal, financial, and infrastructural support needed for sustainable tourism growth (Connell et al, 2009; John Massyn, 2007; Ngo et al, 2018; Saito and Ruhanen, 2017). Consequently, the involvement of local authority supporters in social media marketing can improve the sustainability of a CBTE (Ngo et al, 2018; Snyman, 2014). While qualitative studies using interviews (Ngo et al, 2018) and netnographic analysis (Mkono, 2016) have highlighted the significant role of social media in promoting CBTEs, further studies should deepen the understanding of its broader impacts. However, limited research has quantitatively examined local government stakeholders moderate the connection between social media marketing adoption and sustainability performance. Based on this gap, this study explores this moderating role and proposes the following hypothesis.

H8: Local authority stakeholders (LA) as a moderator of the correlation between social media marketing adoption (SMA) and sustainability performance (SUSP).

3 RESEARCH METHODOLOGY

3.1. Research Philosophy (Paradigm)

Research philosophy includes the fundamental framework of assumptions and beliefs that direct a researcher's methodology in the pursuit of novel knowledge. Research philosophy is also referred to as a philosophical worldview (Creswell and Creswell, 2017). The philosophy encompasses assumptions regarding human knowledge (epistemology), concerns the nature of existence and reality (ontology), and examines the significance of values in the research procedure (axiology) (Crotty, 1998). In the body of literature, scholars categorized various primary research philosophical positions, such as interpretivism and positivism (Lewis et al, 2005). Furthermore, other scholars have identified five research philosophies suitable for business and management studies: interpretivism, positivism, postmodernism, critical realism, and pragmatism (Saunders et al, 2015). Meanwhile, other scholars have identified four primary philosophical worldviews in works of literature: constructivism, transformative, postpositivism, and pragmatism (Creswell and Creswell, 2017). Although the debate continues regarding the beliefs or worldviews that researchers integrate into their investigations, this study emphasizes research philosophies (Creswell and Creswell, 2017). In particular, Postpositivism (also related to as positivist/postpositivist investigation, empirical research, and positivism) presumes the existence of an objective reality and maintains that knowledge can be gained through measurable data and objective observation; Interpretivism/Constructivism emphasizes comprehending the subjective experiences and meanings of individuals through qualitative analysis to examine the complex, understood nature of human situations; Transformative emphasizes fostering change in society by recognizing that reality is socially created and inherently unequal; Pragmatism concentrates on practical applications - what is effective - and solutions to problems, employing a combination of methodologies to address research questions. Figure 5 highlights the philosophical worldview adopted from the literature.

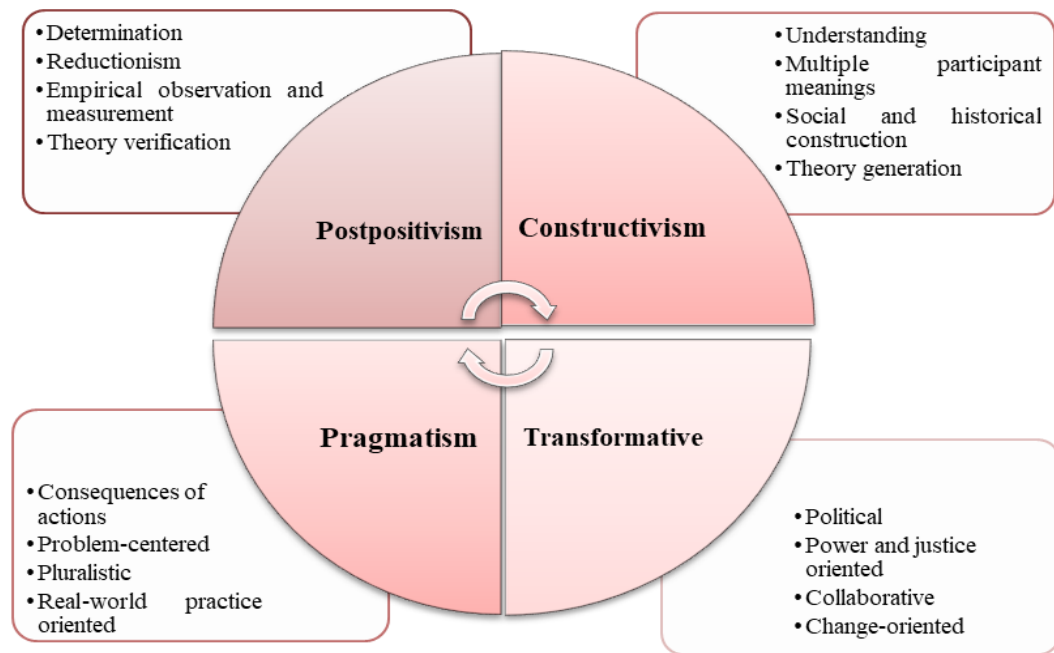


Figure 5. The philosophical worldview

Source: Own edition from Creswell and Creswell (2017)

However, the researcher established the research philosophy of this study by taking into account its objective, context, and nature. The study objective was to establish a model of social media marketing adoption, involving local authority stakeholders and sustainability performance in CBTEs. To achieve this, the research carried out semi-structured interviews to deepen the comprehension of three concepts from the viewpoints and experiences of CBTE owners in Vietnam. Therefore, the author investigated the adoption of social media marketing, stakeholder collaboration, and sustainability performance through a qualitative study. This qualitative research connects with the interpretivism/constructivism philosophy, considering industry-specific variables and interviewees' opinions and experiences (Creswell and Creswell, 2017; Willis et al, 2007). In addition to the interpretivism/constructivism philosophy, this research evaluated the effect of social media marketing adoption on long-term business performance and the moderating role of local authority stakeholders. In this approach, the researcher formulated hypotheses with quantifiable and measurable elements, explored these hypotheses, and conducted statistical analyses. Consequently, the adoption of postpositivism philosophy was considered relevant and suitable for this study. Therefore, this study selected a research philosophy (pragmatism), which integrates elements of constructivism and postpositivism, as the research problem demands a methodological diversity, matching the fundamental philosophy of pragmatism. Pragmatism implies using

mixed methods investigation, combining quantitative and qualitative data to achieve an insightful understanding of a research problem (Creswell and Creswell, 2017).

3.2. Research Design

A research design provides an extensive approach to systematically address and investigate the research questions. Research designs comprise categories of exploration within qualitative, quantitative, and mixed methods techniques that offer precise guidance for procedures in a research project (Creswell and Creswell, 2017). Quantitative study designs center on numerical data obtained by closed-ended answers in numerical format, whereas qualitative study designs pertain to non-numerical data gathered using open-ended answers in textual responses. On the other hand, mixed methods study designs integrate both qualitative and quantitative data to address the research question (Saunders et al, 2015).

This research applied an exploratory sequential mixed methods technique to fill in the gap in the existing research relating to methodologies linked to contextual studies on CBTEs and to build upon previous research (Ngo et al, 2018; 2020; Stone and Stone, 2011; Truong et al, 2014). Therefore, the design integrated a mainly qualitative and quantitative component to meet the study's objectives and address the specific research questions (Table 8).

Table 8. Research Questions and Mixed Methods Design

Research Question	Qualitative Data	Quantitative Data
RQ1: What are the key factors that affect the adoption of social media marketing for the sustainability of CBTEs in developing countries?		X
RQ2: What influence does social media marketing adoption have on the sustainability performance of community-based tourism enterprises (CBTEs)?	X	X
RQ3: Who are the stakeholder collaborations of CBTEs in developing countries that potentially support the relationship between social media marketing and the sustainability performance of CBTEs?	X	X

Source: Own research (2025)

The qualitative research phase examined the opinions of respondents for this study. After analyzing the data, the researcher built an instrument that matched the phenomenon's significance and identified variables for the following quantitative phase (Creswell and Creswell, 2017). Figure 6 shows this exploratory sequential mixed-methods study's approach.

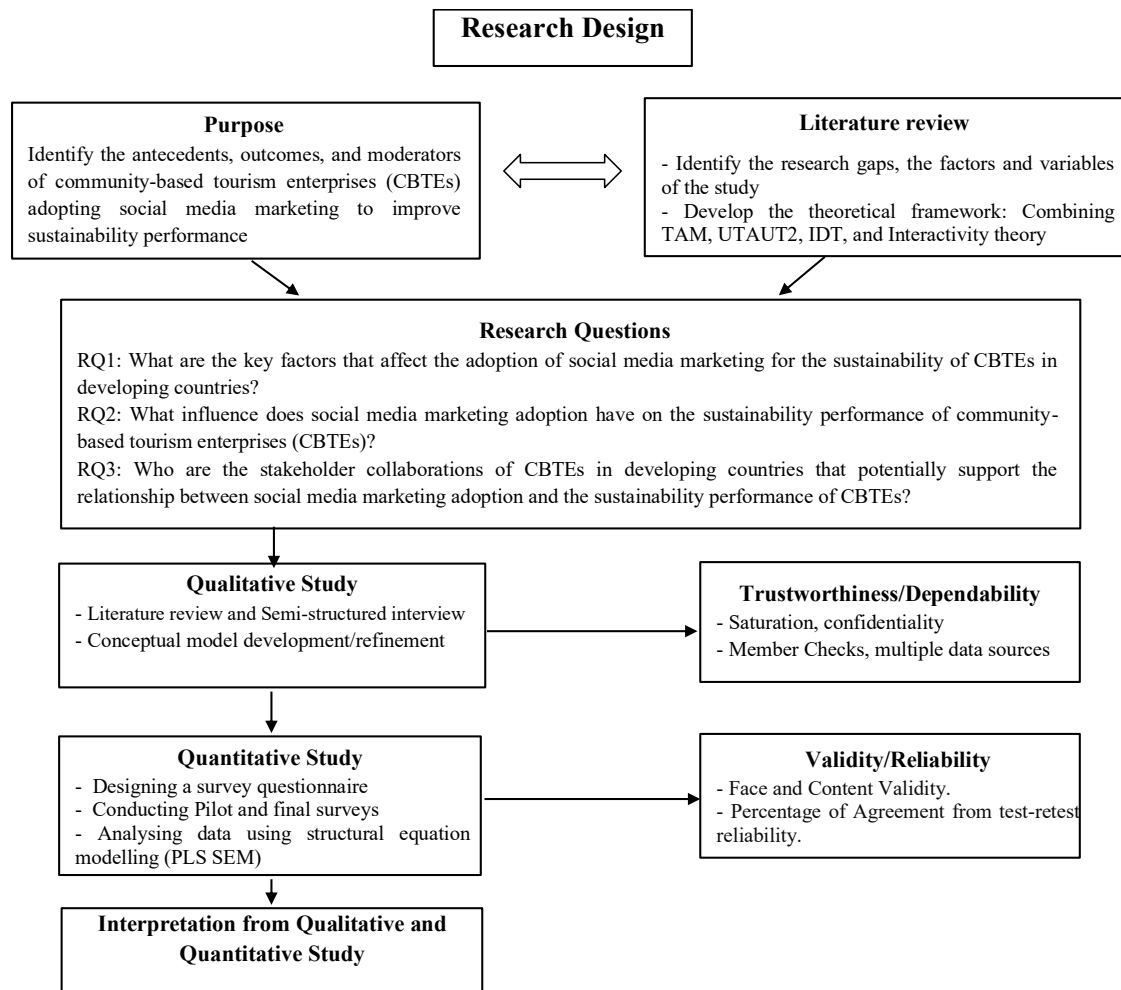


Figure 6. Research Design

Source: Own construction (2025)

This investigation was conducted as an exploratory sequential mixed-methods study. For this study's purposes, data analysis is conducted by examining the qualitative and quantitative data independently, with the beginning qualitative results guiding the following quantitative phase of the investigation. The qualitative phase will help to establish the stage for the quantitative phase. The elements of the quantitative phase in the present analysis are regarding data obtained from the qualitative part of the study (Creswell and Creswell, 2017). Furthermore, the three primary variables of this study, including social media marketing adoption, local authority stakeholders, and sustainability performance, remain emergent constructs, necessitating further theoretical research to deepen understanding and examine the multitude of dimensions identified in the literature (Ngo et al, 2018; 2020; Stone and Stone, 2011; Truong et al, 2014). Consequently, a sequential exploratory mixed-method research design was employed. Therefore, this study essentially conducted interviews with a select group of owners of CBTEs who possess extensive experience in CBT to determine the factors and variables related to social media marketing adoption, local authority stakeholders, and the

sustainability performance of CBTEs. Finally, a quantitative analysis was carried out on a large-scale sample, complemented by qualitative interviews, to examine the structural relationships within the theoretical framework of the present research.

3.3. Research Process

The research procedure includes a sequence of chronological parts to complete the research. This study employed a qualitative study for initial exploration and a quantitative survey for validation, consistent with a sequential exploratory research design. Figure 7 displays the procedures associated with the various phases of this investigation.

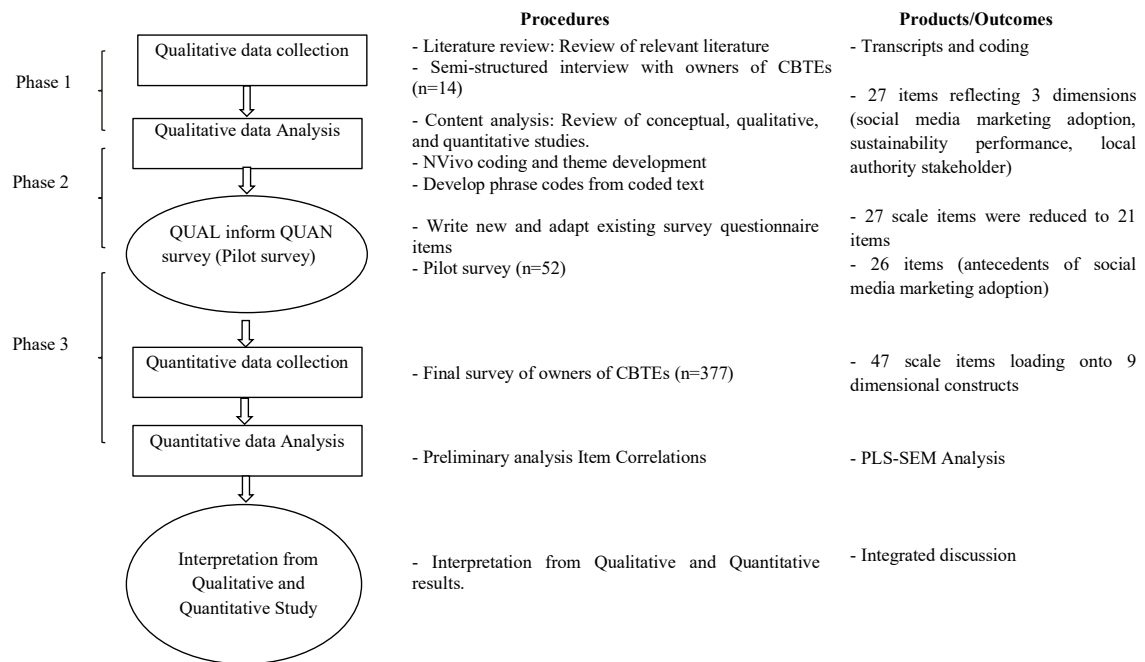


Figure 7. Explanation of the modeling procedures and scale development

Source: Own construction (2025)

Particularly, in Phase 1, beginning with a qualitative study comprising two steps: a literature review and content analysis to identify research gaps and to delineate the preliminary dimensions and variables of the study. The next part involved conducting a qualitative study by semi-structured interviews with 14 CBTE owners, followed by thematic analysis of the interview transcripts using the Nvivo program to guarantee the contextual validity of the study framework. The variables and factors were further defined through a comparison of interview data (inductive approach) and the findings of the literature review (deductive approach). Phase 2 entailed the development of a questionnaire and the conducting of a pilot study involving 52 owners of CBTEs. The pilot findings assist in identifying unclear questions, evaluating internal consistency, and refining the measurement scales, which reduces the

original 27 items to 21 well-structured items of three main constructs, including social media marketing adoption, sustainability performance, and local authority stakeholders. The concluding phase (Phase 3) involved a comprehensive survey with an expanded sample of CBTE owners (N = 377), followed by quantitative analysis utilizing PLS-SEM to investigate the connections among the constructs. Therefore, the study synthesizes both qualitative and quantitative findings to offer a complete knowledge of the antecedents, outcomes, and moderators of social media marketing adoption in CBTEs in Vietnam.

3.4. Qualitative Study (Phase 1)

The initial step in constructing the scale involved developing a collection of elements that represent various dimensions of social media marketing adoption, local authority stakeholders, and sustainability performance. Literature, expert evaluation, and general feedback were employed to develop a list of items characterized by the most relevant, specific, and accessible descriptions to guarantee the content validity of the scales. The variables and factors were further defined through a comparison of interview data (inductive approach) and the results of the literature review (deductive approach). Particularly, in the first step (inductive approach), the qualitative study involved conducting interviews in the exploratory phase to verify the dimensions and indicators of the study constructs within the proposed model. Qualitative interviews were also conducted to confirm the contextual validity of the study framework. In the second step (deductive approach), the study proceeds with a comprehensive assessment of the literature intended to determine appropriate theories, conceptual frameworks, and previous studies concerning social media marketing adoption, sustainability performance, and stakeholder collaboration within the fields of CBT and CBTEs. The literature review contributes to establishing a robust theoretical foundation and informs the development of the interview results. The interview research was conducted and presents its procedure in the following sections.

3.4.1. Participants and Sampling

Selecting an appropriate sampling strategy, sample size, and sampling method is crucial in the context of qualitative research. In terms of sampling strategy, the population of focus of this research consisted of owners of CBTEs in the mountainous region of northern Vietnam, with a significant concentration of CBTEs (MOCST, 2024). Consequently, each participant reflects an individual business for qualitative analysis. The participants were individuals holding ownership roles and possessing sufficient understanding and experience in CBT. These individuals were selected based on appropriate sociodemographic and substantive

aspects. Selection criteria comprised: (1) involvement in CBTEs, (2) adoption of social media platforms for business marketing, and (3) willingness to take part in a 45–60 minute conversation. This method provided that participants could offer comprehensive, significant insights that matched the research objectives.

Regarding the sample method, this study applied a non-probability purposive sampling technique, as it is particularly suitable for research that requires participants with specific knowledge, experience, or expertise related to the study topic. By focusing on individuals who possess a deep understanding of CBTEs and the use of social media marketing, purposive sampling ensured the collection of meaningful and contextually relevant data that could effectively address the research objectives. Therefore, purposive sampling was selected because it enables focused, in-depth exploration of a specialized issue, ensures relevance and expertise among respondents, and enhances the validity of qualitative findings in a specific context (Myers, 2019; Sarker, 2025).

It is observed that the method of determining sample size differs between qualitative and quantitative studies. Therefore, this study chose the sample in accordance with the study's focus. Interviews were carried out until data saturation was achieved. In the present research, saturation was characterized as the stage at which the information gathered through interviews no longer discovers new themes (Adeoye-Olatunde and Olenik, 2021). Because the present study employed an online sample, researchers did not have the opportunity to conduct searches for additional information or to determine the point of data saturation. Traditionally, a sample size of 5 to 50 participants is considered sufficient in a qualitative study (Dworkin, 2012). Nevertheless, the sample size differs depending on the context and the research philosophy in qualitative research (Boddy, 2016). The principals were interviewed until data saturation was achieved. Therefore, the sample size comprised 14 in-depth interviews in this study, and no further interviews were conducted once data saturation was achieved.

3.4.2. Qualitative Instruments

Given the objectives and nature of this research, interviews were adopted as the primary qualitative technique to determine key variables and factors from the viewpoints of participants in the research area. The interview method allows for the exploration of participants' experiences, opinions, and insights, which are crucial in understanding complex social phenomena such as social media marketing adoption among CBTEs. Structured interviews, while useful for uniformity, restrict in-depth exploration due to predetermined questions, whereas unstructured interviews, though flexible, are time-consuming and less

focused (Creswell and Creswell, 2017). To balance these extremes, the study employed semi-structured interviews, which provide a flexible framework for guided open-ended discussions. Semi-structured interviews were selected because this approach enables researchers to combine structured questions for consistency with unstructured ones for deeper exploration. This method has been commonly recognized in qualitative research for its efficiency, flexibility, and ability to generate reliable and rich data (Adeoye-Olatunde and Olenik, 2021). This allows interviewees to express their views freely while ensuring that all relevant topics are covered systematically. Furthermore, the literature confirmed that semi-structured interviews provide a cost-effective balance between time management and data quality, improving the reliability and validity of the results (Whiting, 2008). Regarding these advantages, this study employed semi-structured interviews to refine the variables and factors included in the research model.

To maintain consistency and control, interviews were conducted by a single researcher, following literature recommendations that one interviewer ensures clarity, focus, and comparability of responses (Whiting, 2008). The semi-structured interview questions were prepared using a comprehensive literature assessment to ensure consistency between theory and data collection (Whiting, 2008). The interviews were conducted using a pre-established interview protocol (Appendix 1), which was pre-tested and later modified as appropriate. The themes identified in the literature were employed to inform the development of questions. Interview protocol questions were formulated to analyze participant responses in accordance with the themes identified from the literature review (Adeoye-Olatunde and Olenik, 2021). This protocol ensured that responses directly addressed the qualitative research objectives and informed the design of the quantitative phase (Creswell and Creswell, 2017).

To ensure clarity, validity, and contextual relevance, the interview guide was examined through pre-testing and expert review. Specifically, two academic experts evaluated the instrument for content validity, and two CBTE owners participated in a pilot test, leading to minor revisions in question wording and sequence. Additionally, to ensure comprehension among Vietnamese participants, the interview questions in English were translated into Vietnamese, the local language used in the study context. Two researchers from Hung Vuong University's Faculty of Economics and Business Administration validated the English-Vietnamese translation for language accuracy and conceptual consistency.

3.4.3. Qualitative Data Collection

Before conducting the interviews, potential participants were contacted by social media platforms such as Zalo and Facebook. In following ethical research guidelines, the researcher described the study's purpose, the confidentiality of responses, and the voluntary nature of participation. Participants were also provided with the interview protocol questions and guidelines in advance to guarantee that they completely understood the objectives and scope of the study. The interviews began with informed consent from all participants.

At the beginning of each interview, the researcher introduced herself to build trust with the respondents and repeated the objectives of the research and data collection process. Interviewees received notice that their opinions would be kept private and applied solely for academic purposes. After receiving verbal consent, the researcher started recording the discussion and continued with the interview according to the semi-structured interview guide. The format facilitated adaptability in examining emerging themes while ensuring homogeneity across all interviews. Participants were free to select their preferred time and location for the interviews to promote comfort and openness.

The interviews were conducted in October 2024 using Zalo or Google Meet, relying on each participant's availability and geographical location. All conversations were audio-recorded with participants' agreement. Each participant received a summary of the research objectives before the session began to ensure clarity and engagement. The duration of the interviews ranged from 25 to 40 minutes, averaging approximately 30 minutes per session. This flexible and participant-centered approach helped obtain high-quality qualitative data while respecting the schedules and preferences of the respondents.

3.4.4. Qualitative Data Analysis

This research applied a combination of content analysis and hybrid thematic analysis techniques to analyse the variables and factors collected from the literature review and qualitative interviews. Content analysis was applied to systematically examine and categorize variables identified from the literature, while thematic analysis was utilized to analyse data obtained from the in-depth interviews. The hybrid thematic analysis approach combined both inductive (data-driven) and deductive (theory-driven) methods to guarantee a thorough knowledge of the data. There are two possible hybrid approaches, including inductive/deductive and deductive/inductive. However, this study employed the inductive/deductive hybrid technique because this technique was recommended for

exploratory research (Proudfoot, 2023). In this approach, the inductive process was first used to identify new themes emerging directly from the data, followed by a deductive process to combine these findings with existing theories and literature to achieve the research objectives.

The analysis followed the six steps of thematic analysis (Braun and Clarke, 2006). First, this study transcribed and translated the interview recordings into Vietnamese and English after understanding participants' responses from transcripts and field notes. Second, initial codes were created, with external reviewers involved to ensure reliability. Third, related codes were grouped into potential themes using data matrices, which helped organise and compare responses across participants. Fourth, the researcher reviewed and refined these themes by re-examining the data for consistency. Fifth, each theme was named and defined clearly to reflect its relationship to the research questions and theoretical framework. Finally, the sixth stage involved producing the analytical report, linking it to the study's conceptual framework. This approach ensured clear, reliable, and comprehensive qualitative data interpretation.

The qualitative data collected from interviews were analysed using the NVivo 15 program to facilitate systematic coding and theme development. Content analysis was applied to the data collected through the literature evaluation, whereas a thematic analysis approach was utilized for the in-depth interview data. The sub-themes and themes were determined during the inductive phase through the application of axial coding and open coding. Each sub-theme was regarded as an initial element or a variable, and each theme was consequently viewed as a potential dimension for assessing higher-order constructs. During the deductive phase, all of these factors and dimensions, identified from the qualitative study, were systematically compared and evaluated in the context of the literature to support the interview outcomes. After that, keywords and phrases identified in participants' responses were categorised to reveal underlying patterns. The researcher then cross-checked these findings with the initial item pool derived from the previous research to supplement missing terms, eliminate redundancies, and replace complex terminology with more accessible expressions.

After refining the results, this study submitted the final pool of variables and items to an expert panel for evaluation. The panel assessed the clarity, consistency, and appropriateness of the items in capturing key constructs regarding social media marketing adoption, local authority stakeholders, and sustainability performance. This careful process resulted in a total of 27 unique items, each representing a valid and reliable indicator of the study constructs. These items were subsequently included in five-point Likert scales with different values (Table 18) and were prepared for pilot testing in Phase 2 to evaluate their reliability and validity.

3.5. Quantitative Pilot Study (Phase 2)

The quantitative component of this study comprised two stages: Phase 2 involved a pilot survey to test and enhance the research instrument, and Phase 3 involved a final survey to empirically validate the model. The findings of Phase 1 confirmed three key dimensions, social media marketing adoption, sustainability performance, and local authority stakeholders, as the basis of the quantitative model. During Phase 2, the conceptual framework and measurement scales were finalized, and the pilot survey was used to examine the clarity, validity, and reliability of the items, enabling necessary revisions before the full-scale data collection. The procedures of Phase 2 are presented in the subsequent sections.

3.5.1. Questionnaire development

The questionnaire development was guided by the conceptual framework developed in the earlier phase of this research. Regarding the themes from Phase 1, this research employed reflective multi-item measures from the prior research and a qualitative study to assess the model. The process of questionnaire development began with a detailed review of current literature to identify validated measurement items used in prior studies relevant to the research constructs. Where appropriate, existing scales were adapted to match the local context of the research, while new items were generated to capture aspects that were not adequately covered in previous research. The questionnaire items were written carefully for maximum clarity, conciseness, and contextual relevance. Each construct was measured using multiple items, allowing for internal consistency and reliability assessment during subsequent analyses.

This study covers three primary constructs, namely, the antecedents and metrics of social media marketing adoption, as well as local authority stakeholders, and one additional construct, sustainability performance, which includes several sub-constructs. Therefore, the researcher evaluated numerous variables for every sub-construct to confirm the reliability and validity of the measures. This study created a construct measurement instrument, grounded in an examination of relevant literature and qualitative research (phase 1), comprising 53 items excluding demographic questions. The questionnaire comprised the following constructs: Twenty-six items were used to measure elements impacting social media marketing adoption based on scales from literature (perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, and interactivity) (Chatterjee and Kar, 2020; El-Gohary, 2012; Qalati et al, 2022; Tajudeen et al, 2018). Five items were developed regarding the measurement of the adoption of social media marketing, and 16 items were adapted to measure sustainability performance (Franzoni, 2015; Ngo et al, 2018; Qalati et al, 2022;

Tajudeen et al, 2018; Tseng et al, 2018). The local authority stakeholder, considered as a moderating construct, was assessed utilizing six items adapted from the current qualitative results and literature review (Manyara and Jones, 2007; Ngo et al, 2020; Truong et al, 2014)

After assessing the significance of the measurement items, the researcher developed a draft questionnaire scale to purify the measures. The structured questionnaire uses a five-point Likert scale with five points (1 = strongly disagree, 5 = strongly agree), as this format is more convenient for responders and requires less time than open-ended questions (Churchill Jr, 1979). The initial questionnaire was separated into five primary sections: (1) demographic information of respondents, (2) items examining local authority stakeholder involvement, (3) items of antecedents affecting social media marketing adoption, (4) items of measuring social media marketing adoption, and (5) items assessing sustainability performance.

3.5.2. Pre-testing and pilot study

Before proceeding to the quantitative phase, a pre-test and pilot administration of the questionnaire instrument were conducted to ensure its accuracy, clarity, and appropriateness. The instrument underwent three rounds of pre-testing to improve its structure and eliminate any potential leading or biased questions (Worthington and Whittaker, 2006). To achieve this, the researcher sought feedback from five experts, including three academic experts and two CBTE owners with more than ten years of experience working in CBT. These experts were asked to evaluate the clarity of the instructions, wording of questions, layout of the questionnaire, and completion time. Their feedback resulted in several improvements, such as refining item phrasing, removing ambiguous statements, and reordering questions to enhance readability and response accuracy. Although the experts found the questionnaire generally easy and clear to understand, they recommended that the final version be translated into Vietnamese. This was because most measurement indicators were adapted from prior studies originally written in English, and translation would improve comprehension among local respondents. To ensure conceptual equivalence between the English and Vietnamese versions, a back-translation procedure was conducted (Brislin, 1986). The translation was verified by two researchers from the Faculty of Economics and Business Administration, Hung Vuong University, Vietnam, ensuring linguistic accuracy and conceptual consistency between the English and Vietnamese versions. After incorporating all expert feedback and translation adjustments, the finalized draft of the questionnaire was ready for pilot testing.

The pilot research was conducted to evaluate the feasibility of the research design and to test the validity, reliability, and practicality of the instrument before the main survey. Specifically,

the pilot research aimed to evaluate the clarity of the questionnaire, the appropriateness of its structure, the average time required for completion, and the trustworthiness of respondents for data collection (Collins, 2003). The sample size for a pilot study is not fixed and largely depends on the objectives and scope of the research. Methodological guidelines suggest pilot sample sizes typically range from 30 to 50 participants (Johanson and Brooks, 2010); however, some scholars recommend using 50 to 100 respondents to achieve stable reliability results (Carpenter et al, 2016; Chatterjee and Kar, 2020). Accordingly, this research conducted a pilot test with 52 respondents. These participants were selected from the same population as the main survey, which was excluded from the final data collection to avoid duplication. The final draft questionnaire is generated after all the flaws in the questionnaire have been removed during this step (Ruel et al, 2015). The pilot test used a five-point Likert scale and was administered through Google Forms. The pilot study's data collection period comprised one month, from January 11 to January 30, 2025, in the mountainous regions of northern Vietnam, with all questionnaires administered in Vietnamese.

Data gathered from the pilot study were analyzed using SPSS version 26 to perform descriptive statistics, validity analysis-exploratory factor analysis (EFA), and reliability analysis (Cronbach's Alpha). These analyses aided in the purification of the measures and confirmed the indicators' clarity, reliability, and validity. The EFA and Cronbach's Alpha results guided the refinement of the questionnaire by identifying poorly performing items and ensuring that each construct was clearly represented. After validating the instrument through the pilot study, the final version of the questionnaire was used in the final survey (phase 3). The results of the pilot survey, including detailed findings, are presented in section 4.2.

3.6. Quantitative Final Study (Phase 3)

In Phase 3, the research focused on empirical validation through a comprehensive quantitative survey. By employing appropriate statistical analyses (PLS SEM), this phase aimed to provide robust evidence supporting the hypothesized associations and to deepen the understanding of antecedents, outcomes, and moderators of social media marketing adoption influencing sustainability performance of local authority engagement.

3.6.1. Population of the study

Specifically, CBTEs in Vietnam are the focus of this research. Therefore, the target population/frame selected entrepreneurs of CBTEs situated in the mountainous regions of Northern Vietnam, as the majority of CBTEs are located in this area (MOCST, 2024) (Figure 8). The frame was acceptable since the sample targeted a contextually and geographically relevant population of CBTE owners who were actively involved in controlling their own

businesses. The key sociodemographic variables of the population were considered as a quota (location) supported by the outcomes of the qualitative research. These participants were selected based on relevant substantive and sociodemographic characteristics. Thus, every participant reflects a distinct business unit for quantitative analysis.

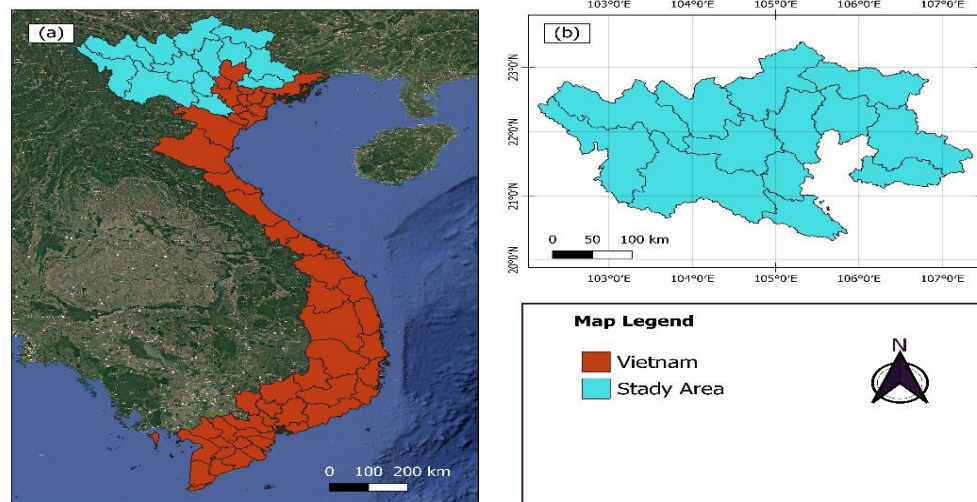


Figure 8. Study Area

Source: Own construction (2025)

The participants were chosen considering relevant sociodemographic and substantive characteristics. Selection criteria included: (1) being actively involved in CBTEs and (2) having used or adopted social media platforms for business promotion. This method provided that those involved had the direct experience and appropriate knowledge of the digital instruments under investigation. This focused sampling improved the significance of the results by targeting participants directly influenced by the research topic (Amoah et al, 2023).

3.6.2. Sampling techniques and Sample size

Considering the sample method, the population is unknown, and it is challenging to select subjects to serve as samples for this research. Thus, this research applied a non-probability convenience sampling technique for data collection. This method was chosen because it enables the researcher to reach respondents who are readily available, ready to engage, and have relevant information about the study topic (Ngo and Creutz, 2022). In addition, non-probability convenience sampling offers flexibility and helps prevent the selection of multiple members from the same group, thereby ensuring comprehensive representation within a smaller sample size (Fadele and Rocha, 2025). In the context of CBTEs, obtaining a complete sampling frame is often difficult due to the absence of comprehensive databases, geographical dispersion, and variations in organizational size and formal registration status. Therefore, non-probability convenience sampling technique were feasible in this research. Moreover, given

the resource and time constraints of the research, convenience sampling provided a reasonable and effective approach to reach a sufficient number of qualified respondents within a limited timeframe (Ngo and Creutz, 2022).

The authors suggest that an inadequate sample size can result in decreased generalizability and reduced statistical power, thereby potentially compromising the reliability and validity of the study outcomes (Kline, 2013). Therefore, establishing an appropriate sample size is crucial to obtaining valid and reliable outcomes in quantitative research. Based on prior methodological research, a minimum sample size of 300 respondents is typically advised for multivariate analyses (Henson and Roberts, 2006; Pett et al, 2003). Furthermore, multiple researchers have proposed that the sample size can also be established based on the ratio of items to respondents, with an acceptable range ranging from 1:4 to 1:10 (Chatterjee and Kar, 2020; Hinkin, 1995). Following the modification of the measurement instrument and the validation of the reliability of every construct through a pilot survey (see Section 4.2), the finalized version of the questionnaire was created. It comprises 47 items distributed among four principal constructs: factors influencing social media marketing adoption (26 items), sustainability performance (11 items), social media marketing adoption (4 items), and local authority stakeholders (6 items). The item number in this study is 47; accordingly, responses should fall within the range of 188 to 470. This sample range was determined to be adequate to produce dependable results, strengthen the robustness of statistical analyses, and assure the generalizability of the findings to the wider population of CBTEs within the country.

3.6.3. Measurement development

According to the themes derived from the qualitative outcomes and pilot findings, this study identifies four primary constructs, with one construct (sustainability performance) comprising three sub-constructs. Therefore, this study evaluated various items for every sub-construct to confirm the reliability and accuracy of the measures. Following the pilot study, a modified instrument for measurement was employed in the final survey. The researcher designed a structured questionnaire applying a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), as this layout is more user-friendly for respondents and demands less time compared to open-ended questions (Churchill Jr, 1979). The final questionnaire comprised several different constructs: Twenty-six items were employed to assess factors influencing the adoption of social media marketing, based on scales derived from existing literature (perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, and interactivity) (Chatterjee and Kar, 2020; El-Gohary, 2012; Tajudeen et al, 2018). Four items were created to assess the adoption of social media marketing, while eleven items were

adapted to evaluate sustainability performance (Qalati et al, 2022; Tajudeen et al, 2018). The local authority stakeholder, as a moderating construct, was assessed utilizing six items adapted from the qualitative research (John Massyn, 2007; Luan et al, 2023; Ngo et al, 2018a). The final questionnaire was divided and modified into five main sections: (1) demographic information of respondents, (2) items examining local authority stakeholder involvement, (3) items of antecedents affecting social media marketing adoption, (4) items of measuring social media marketing adoption, and (5) items assessing sustainability performance. These measurements are explained below.

3.6.3.1. Demographic variables

The initial section of the survey focused on demographic factors, which provided essential background information about the respondents. These variables included age, gender, religion, education level, work experience, managerial position, income from tourism, tourism sector, and social media tools used, all measured using a nominal scale. The purpose of collecting demographic data was to identify any significant differences among respondent companies based on their characteristics and to provide a contextual understanding of the sample profile. Table 9 indicates the demographic characteristics considered in this study.

Table 9. Demographic variables

Items	Variable	Measure
Q1.	Age	Age range of the respondent
Q2.	Gender	Gender of respondent
Q3.	Religion	Religion of respondent
Q4.	Education level	Range of respondents' educational status
Q5.	Working experience	Range of working experience of respondents
Q6.	Managerial position	Managerial hierarchy
Q7.	Income from tourism	Range of income from tourism/the total income of respondents
Q8.	Tourism sector	Tourism sector of the business
Q9.	Social media tools	Social media tools are used by the business

Source: Own research (2025)

3.6.3.2. Measurement 2: Factors/Antecedents affecting social media marketing adoption

This section focuses on identifying and measuring the key factors influencing social media marketing adoption, namely perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, and interactivity. To establish these factors, the study reviewed relevant literature to examine the measurement items associated with each construct. Based on the findings from the theoretical justification, six major factors affecting social media marketing adoption were confirmed. Table 10 lists the measurement items and sources.

Table 10. Measurement items of antecedents in social media marketing adoption

Constructs	Items	Measurement item	Source
Perceived usefulness (PEU)	PEU1	Increase in business opportunities	(El-Gohary, 2012), (Tajudeen et al, 2018)
	PEU2	Allow for better advertising and marketing	
	PEU3	Enhancement in competitiveness	
	PEU4	Improvement in customer service	
	PEU5	Improvement in customer relations and satisfaction	
	PEU6	Analyze customer requirements more efficiently	
Perceived ease of use (EOU)	EOU1	Overall, it is easy to learn social media marketing	(El-Gohary, 2012), (Chatterjee and Kar, 2020)
	EOU2	It is easy to identify new customers using social media	
	EOU3	It is easy to understand customer demand quickly using social media	
	EOU4	Information retrieval about a customer is easy using social media	
	EOU5	Advertising products and services on social media platforms is easy	
Cost (COS)	COS1	My cost of dealing with customer enquiries has been reduced by using social media marketing	(El-Gohary, 2012), (Chatterjee and Kar, 2020)
	COS2	Cost of identifying new customers has been reduced through the use of social media marketing	
	COS3	Customer awareness and training costs have been diminished by the use of social media marketing	
	COS4	The overall advertising and promotion costs have gone down using social media marketing	
Compatibility (COM)	COM1	Social media adoption is compatible with our information technology infrastructure	(El-Gohary, 2012), (Tajudeen et al, 2018), (Chatterjee and Kar, 2020)
	COM2	Social media adoption is consistent with our organizational beliefs and values	
	COM3	Social media adoption is consistent with business strategy	
	COM4	Social media adoption is consistent with our organizational marketing purpose	
Facilitating conditions (FCO)	FCO1	We have adequate infrastructure for using social media	(El-Gohary, 2012), (Chatterjee and Kar, 2020)
	FCO2	Our organization invests adequately in social media marketing	
	FCO3	We have enough trained manpower dealing with social media marketing	
	FCO4	We have an in-house training facility to learn about different aspects of social media marketing	
Interactivity (INT)	INT1	The social media sites provide features that are vivid and evoke responses.	(El-Gohary, 2012), (Tajudeen et al, 2018)
	INT2	The social media sites provide features for quick, interactive communication with our customers.	
	INT3	The social media sites provide an appropriate amount of interactive features (such as graphics, pop-up windows, animation, music, voices)	

Source: Own research (2025)

3.6.3.3. Measurement 3: Social media marketing adoption construct

This part presents the construct of social media marketing adoption, besides its corresponding measurement items. To develop these measures, the study reviewed relevant literature and conducted a qualitative investigation to identify appropriate indicators for assessing social media marketing adoption. Following the pilot survey, the construct was further refined and validated empirically, ensuring both theoretical and practical relevance. As a result, four key measurement items were finalized to represent the construct. The coded statements of these items and their different sources are summarized in Table 11.

Table 11. Measurement items of social media marketing adoption

Constructs	Items	Measurement item	Source
Social media marketing adoption (SMA)	SMA1	My enterprise adopted social media for creating and distributing marketing content	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA2	My enterprise adopted social media to improve customer loyalty and retention	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA3	My enterprise adopted social media to improve customer relationships	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA4	My enterprise adopted social media to access general, customer, and competitor information	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result

Source: Qualitative study results (2025)

3.6.3.4. Measurement 4: Sustainability performance construct

This section measures CBTEs' three-dimensional sustainability performance. A comprehensive literature review identified the measuring items, followed by a qualitative field investigation to verify contextual validity and real-world conditions. Theoretical justification was further supported by insights from prior research. Additionally, a new social performance measure, “SP1: Empowering women through tourism and promoting financial independence”, was identified in qualitative research and confirmed by an expert committee. Table 12 includes sustainability performance coded measuring item statements and sources.

Table 12. Measurement items of Sustainability performance

Constructs	Items	Measurement item	Source
Economic performance (EP)	EP1	My enterprise increases in the number of customers	(Qalati et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2018), (Franzoni, 2015), Qualitative result
	EP2	My enterprise increases in customer loyalty and retention	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015), Qualitative result
	EP3	My enterprise improved customer relationships	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015), Qualitative result
	EP4	My enterprise decreases the cost of marketing activities, such as promotion and advertising.	(Franzoni, 2015), (Qalati et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2018), Qualitative result
	EP5	My enterprise increased information accessibility	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015), Qualitative result
Social performance (SP)	SP1	My enterprise is empowering women through tourism and financial independence	Qualitative result
	SP2	My enterprise contributes to creating job opportunities in local community	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	SP3	My enterprise preserves indigenous culture and local traditions	(Ngo et al, 2018), Qualitative result
Environmental performance (ENP)	ENP1	My enterprise contributes to protecting natural resources	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	ENP2	My enterprise contributes to maintaining biodiversity.	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	ENP3	My enterprise is raising environmental awareness in the community	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result

Source: Qualitative study results (2025)

3.6.3.5. Measurement 5: Local authority stakeholder construct

The local authority stakeholder construct was measured using six items that were initially identified through a comprehensive literature review. Their contextual validity was confirmed through a qualitative study to ensure relevance to the research setting, while theoretical justification was established based on prior studies. Following the pilot survey, empirical validity was also verified, confirming the reliability and suitability of these measurement items. The six finalized measurement items of the local authority stakeholder construct, along with their corresponding sources, are indicated in Table 13 below.

Table 13. Measurement items of local authority stakeholder

Constructs	Items	Measurement item	Source
Local authority stakeholders (LA)	LA1	Local government support safety and environmental regulations	(Ngo et al, 2018), (Ngo et al, 2020), Qualitative result
	LA2	Local government support for credit policy	(Luan et al, 2023), (Truong et al, 2014), Qualitative result
	LA3	Local government support for training and coaching	(Truong et al, 2014), (Ngo et al, 2020), (Manyara and Jones, 2007), (Manyara and Jones, 2007), Qualitative result
	LA4	Local government support for infrastructure investment	(Shone et al, 2016), (Truong et al, 2014), (Kontogeorgopoulos et al, 2014), Qualitative result
	LA5	Local government support for linking with other tourism enterprises	(Ngo et al, 2020), (Manyara and Jones, 2007), Qualitative result
	LA6	Local government support for information provision	(Manyara and Jones, 2007), Qualitative result

Source: Qualitative study results (2025)

3.6.4. Quantitative data collection

The researcher employed an online questionnaire survey as the primary method of data collection to ensure both sampling adequacy and convenience. Data were collected using Google Forms, which provided several operational advantages, including flexibility, low administrative cost, ease of data management, and controlled sequencing of responses (Evans and Mathur, 2005). The questionnaire began with complete information about the research at the beginning of the survey, an explanation of the data collection's aim, and guarantees of the privacy of the data, followed by a section collecting demographic information such as age, location, education, ethnicity, tourism sector, work experience, income, and social media marketing tools. The second section contained items related to the study's conceptual framework. The survey link was shared with CBTEs through social media platforms such as Zalo and Facebook. At the same time, the researcher also contacted a local authority in each province and asked them to support sending the survey questionnaire in a private social media group where the authorities manage all CTBEs in each province. Data were collected from February to March 2025 in two phases separated by one week to reduce common method bias (Podsakoff et al, 2003). By the end of the process on March 21, 2025, a total of 391 responses had been received for the final analysis.

3.6.5. Quantitative data analysis

The quantitative data in this study were analysed using inferential and descriptive statistical methods. Particularly, descriptive statistics, including mean, standard deviation, percentage, and frequency, were utilized to describe and summarize the demographic characteristics of

the respondents. Meanwhile, inferential statistical methods were applied to validate and test the proposed model. Specifically, the study utilised partial least squares structural equation modelling (PLS-SEM) through SmartPLS 4, a non-parametric and multivariate analytical technique widely adopted for examining hypothesised relationships by assessing path coefficients, effect sizes, and the overall model structure (Hair et al, 2019).

This study applied partial least squares structural equation modelling (PLS-SEM) rather than covariance-based structural equation modelling (CB-SEM) for several methodological and practical reasons. Firstly, PLS-SEM is more appropriate for exploratory research, while CB-SEM is typically used for confirmatory studies (Hair et al, 2019). Since this study explores three main constructs, including social media marketing adoption, local authority stakeholders, and sustainability performance as a relatively new research area, this is consistent with the exploratory nature of PLS-SEM. Secondly, PLS-SEM performs well with smaller sample sizes, whereas CB-SEM generally requires at least 500 samples for robust analysis (Hair et al, 2010). Thirdly, PLS-SEM is more appropriate for complex models with multiple constructs and indicators and can effectively handle non-normally distributed data, unlike CB-SEM, which assumes data normality (Hair et al, 2011). Given these benefits, PLS-SEM has become a widely used analytical approach in tourism research, particularly in studies on social media marketing (Sano et al, 2024; Xie et al, 2023) and digital marketing (Sharma et al, 2020; Zainal-Abidin et al, 2023). Considering that the current study's sample size was below 500, the data did not meet multivariate normality assumptions, and the conceptual model involved several constructs and interrelationships. Therefore, PLS-SEM was deemed the most appropriate analytical technique.

Following the two-step process recommended for applying PLS-SEM, this research first evaluated the measurement model to ensure the reliability and validity of the constructs and then analyzed the structural model to estimate the connections among variables (Hair et al, 2019). In PLS-SEM, measurement models can be either formative or reflective, based on the causal direction connecting latent constructs and their indicators (Hair et al, 2019). Reflective models consider that indicators are manifestations of the latent construct, while formative models view indicators as defining it (Hair et al, 2019). Based on the questionnaire design and the theoretical framework, all constructs in this study, including both lower-order and higher-order constructs, were reflective. Accordingly, the measurement model was assessed through internal consistency, indicator reliability, average variance extracted (AVE), and discriminant validity, while the structural model was estimated using path coefficients, R^2 , f^2 , Q^2 , and explanatory power to test the hypothesized relationships and assess the overall model quality (Hair et al, 2019).

4 RESULTS AND DISCUSSIONS

4.1. Qualitative Study (Phase 1)

In this phase, data were analyzed using a flexible qualitative methodology. A hybrid thematic analysis using inductive and deductive methods identified social media marketing adoption, sustainability performance, and local authority stakeholders with depth and precision. CBTE owners in Vietnam were interviewed to contextualise literature findings.

4.1.1. Sample characteristics

Participants were 14 owners and managers of CBTEs in Vietnam, and contact was made initially through social media applications such as Zalo or Google Meet with those who agreed to take part in the study. All CBTEs were situated in a mountainous region in the North of Vietnam, where there is a considerable concentration of CBTEs (MOCST, 2024). Since the interview took place in Vietnamese, the native language of the interviewees, the translation was rapidly completed after the transcription. Table 14 presents the profiles of the interview participants.

Table 14. Summary of participants

Code name	Age	Gender	Education	Working experience	Number of rooms
O1	45-50	Male	Vocational education	12	98
O2	30-35	Female	Bachelor degree	6	92
O3	30-35	Male	Bachelor degree	7	9
O4	35-40	Male	Bachelor degree	5	7
O5	35-40	Male	High school	6	10
O6	25-30	Female	Bachelor degree	4	68
O7	51-55	Male	Secondary education	9	6
O8	30-35	Male	High school	3	5
O9	35-40	Male	High school	8	5
O10	45-50	Male	High school	14	105
O11	51-55	Male	Secondary education	10	45
O12	30-35	Female	High school	6	6
O13	51-55	Male	Secondary education	8	12
O14	55-60	Male	Secondary education	7	6

Source: Qualitative study results (2025)

Table 14 presents the demographic and background information of the 14 CBTE owners and managers who participated in the qualitative interviews. The participants are identified by code names (O1–O14) to maintain confidentiality. The majority of participants were male (10 out of 14) (78.6%), while four were female (21.4%), reflecting the gender distribution

commonly observed in community-based tourism management. The respondents' ages varied from 25 to 60 years, with most falling between the 30–40 and 45–55 age groups, indicating that the respondents were mature adults with significant life and work experience.

In terms of educational background, the participants represented diverse levels of education, including completed secondary education (4 participants), high school (4 participants), vocational education (1 participant), and bachelor's degrees (5 participants). This variation highlights the mix of formal education and practical experience among CBTE operators. The respondents had working experience ranging from 3 to 14 years, suggesting that most had extensive engagement in tourism-related activities and were well-positioned to provide informed insights. The number of rooms in their enterprises varied considerably, from as few as 5 rooms to as many as 105, reflecting the differing scales of CBTE operations, from small family-run lodges to larger community-based accommodations. The diversity in gender, education, experience, and enterprise size provides a broad and representative comprehension of social media marketing is adopted and practiced across various types of CBTEs.

4.1.2. Qualitative interview findings (Inductive analysis)

This part indicates the findings from the in-depth interviews, from which five main themes emerged: environmental performance, economic performance, social performance, social media marketing adoption, and local authority stakeholders. The examination of qualitative data provided the themes (dimensions) and sub-themes (variables or initial items) presented in the subsequent sections.

4.1.2.1. Sustainability performance factors and measures

In this qualitative research, interview participants discovered 16 variables measuring sustainability performance in CBTEs. Through thematic analysis, these variables were analyzed and grouped based on commonality, resulting in three main dimensions: economic performance, social performance, and environmental performance. Each dimension comprises several measurement items derived from the initial 16 variables. Table 15 provides a concise overview of the identified dimensions and their corresponding variables, which are further detailed in the parts that follow.

Table 15. Factors and variables of sustainability performance

Theme	Sub-theme	Number of respondents (N = 14)	Number of comments	Exemplary comments
Economic performance	Increasing number of customers	13	24	Scenic content and diverse offerings attract new visitors
	Increasing customer loyalty and retention	8	12	Returning customers, Ongoing online engagement
	Increasing customer relationships	10	17	Direct communication via Zalo/Facebook; Personalized service
	Reducing the cost of marketing activities, such as promotion and advertising	4	6	Affordable prices; Avoiding third-party platforms
	Increasing information accessibility	10	13	Social media visibility; Government tourism fanpages
	Increasing traditional sources of income	7	10	Local crafts, Food services, Souvenir sales
	Developing a variety of tourism products and services	10	11	Mix of accommodation types, cultural and nature-based tourism
Social performance	Empowering women through tourism and financial independence	5	6	Women collect money; Wives manage homestays
	Creating job opportunities for community	9	12	Hire locals per shift, performances and weaving
	Participating in tourism activities of the whole community	8	10	Whole community performs dances; Locals run homestays
	Preserving indigenous culture and local traditions	7	11	Learn about ethnic groups, traditional houses, crafts
	Concerning with developing the local community	8	11	Living standards improved; Better roads
Environmental performance	Encouraging the protection of natural resources	5	8	Waste management; Sustainable sourcing; Compliance with environmental rules
	Maintaining biodiversity	5	8	Maintaining forests, wildlife, and mountain biodiversity
	Raising environmental awareness in the community	6	9	Increased understanding of pollution and a clean environment due to tourism
	Saving energy in community	2	4	Using natural building methods; Avoiding air conditioning; Promoting green design

Source: Qualitative study results (2025)

Economic performance

Economic performance is a critical factor for all CBTEs to secure long-term success. The findings revealed various indicators of economic performance. In particular, the most frequent economic-driven approach establishes an increasing number of customers (N = 13, mentioned 24 times). This orientation is evidenced by the statements, participant (O1) said: *“We have also set up pages about the area to update on festivals and upcoming programs so locals can help sell rooms”*. Another participant (O12) mentioned that, *“My homestay mainly attracts guests through Facebook and word of mouth. For example, when a guest visits, I add them on Zalo and Facebook. Later, when they post about their stay, their friends and acquaintances often contact me after seeing their recommendation. Many of my regular guests also introduce new visitors to my homestay”*. Moreover, additional findings to measure economic performance were mentioned in interview results, such as increasing customer relationships (N = 10, mentioned 17 times). Participant (O12) emphasized that *“I always try my best to satisfy every guest, though it’s impossible to please everyone. Some visitors appreciate our hospitality and recommend us to others, while a few compare us to city hotels and feel less satisfied. Still, through word-of-mouth and personal connections, we continue to build stronger customer relationships and improve our service quality over time”*; Increasing information accessibility (N = 10, mentioned 13 times), participant (O12) mentioned that *“I regularly posts on Zalo, Facebook, and other social media platforms, sharing updates with my friends, who then share them further. Regular customers also repost my content, helping increase information accessibility and making it easier for more people to learn about my homestay and services”*; Developing a variety of tourism products and services (N = 10, mentioned 11 times), participant (O10) highlighted that *“I don’t focus only on homestays. Tourism involves more than just accommodation. I currently work at a resort and also manage a private homestay in another location. That homestay isn’t mainly for retail guests - it serves as a stop for my tour groups. I offer complete tour packages that include accommodation, creating a wider variety of tourism products and services for visitors”*; Increasing traditional sources of income (N = 7, mentioned 10 times), participant (O11) pointed out that *“For me, life is still busy, such as raising pigs, running a guesthouse, farming, and selling pork. However, tourism has helped increase traditional sources of income, allowing me to combine farming and livestock activities with hospitality to earn a more stable living”*; Reducing cost of marketing activities, such as promotion and advertising (N = 4, mentioned 6 times), participant (O12) explained that *“At present, we are not investing in paid advertising and are utilizing the free version of our marketing tools. This approach helps us*

significantly reduce costs associated with promotional activities and advertising efforts”; Increasing customer loyalty and retention (N = 8, mentioned 12 times), participant (O4) shared that “When we began using social media, we noticed a change in customer engagement, particularly during holidays and festivals. During these peak times, many customers would reach out to us, although we were often fully booked by then. This experience highlighted the importance of not only attracting new customers but also fostering loyalty and retention to ensure consistent engagement throughout the year”. Therefore, the results demonstrate that social media marketing is important for improving both the financial viability and the sustainability of CBTEs.

Social performance

Social performance focuses on cultural preservation, community development, and enhanced local pride. The interview results demonstrated various indicators of the social performance of CBTEs. Particularly, the most frequent community development-driven approach is creating job opportunities for the community (N = 9, mentioned 12 times). This orientation is evidenced by the statements, participant (O1) said: *“In some high-end resorts, staff work full-time and get a fixed monthly salary. But in our community, it’s different. We have about ten managers who work by shift or by day. For example, when guests come, we call the chef to the restaurant. Normally, only the cleaning staff are around because we do not pay monthly salaries. This arrangement suits the locals better. They come to work when we have guests, and when there are no guests, they will stay home to farm or raise livestock”,* participant (O12) also said: *“We operate seasonally, so we hire only local people from the area, we don’t bring in workers from outside. I personally run the homestay business, and during the off-season, things are quieter, but the income is still enough to live on each month. So, it’s not too difficult for me,”* and participant (O2) added more information that: *“The remaining human resources, such as receptionists, waiters, and chefs, I will have to use local human resources. Therefore, that’s why it is still called community-based tourism”.*

In another finding, the community development-oriented approach concerning developing the local community (N = 8, mentioned 11 times), participant (O12), for example, mentioned that *“I’ve noticed that living standards have improved. Some locals know how to take advantage of tourism by offering services to visitors. In Mu Cang Chai, homestays and a few small hotels are the main options, helping some people earn more money”;* Participating tourism activities of the whole community (N = 8, mentioned 10 times), participant (O11) explained that *“Now, many locals also sell brocade, which they still weave by hand. Some perform the traditional*

bamboo dance for guests and receive tips. Even older women, aged 50 to 80, still join the dance. Visitors often come to buy clothes, watch the dance, and tip the performers. Families with homestays usually provide food and drinks, while those without homestays sell brocade or local specialties. Some even export their woven fabrics and ethnic textiles abroad"; Preserving indigenous culture and local traditions (N = 7, mentioned 11 times), participant (O1), for example, emphasized that *"The enterprise has tried to preserve some aspects of local culture, but excessive commercialization has changed the area. They have built too many artificial landscapes, amusement zones, and check-in spots, which disrupt the original planning. While these may appear attractive to city visitors and local tourists, foreign visitors often find them less appealing because the authentic community identity has been lost. A true community should include both local residents and businesses working together to preserve indigenous culture and local traditions. Only then can it maintain its genuine character"*; Empowering women through tourism and financial independence (N = 5, mentioned 6 times), participant (O1) highlighted that *"Community-based tourism has greatly empowered indigenous women. In the past, they mainly cooked, washed dishes, and worked in the fields without any voice or authority in the family. Since tourism began, women have become more active, such as cooking, serving guests, and managing payments. This financial independence has improved their social status and human rights. Now, women play a central role in community tourism, while men participate less in guest-related activities"*. Therefore, these outcomes demonstrate that social media marketing supported tourism not only drives economic benefits but also fosters social growth and cultural sustainability within local communities.

Environmental performance

Environmental performance refers to the preservation of cultural and natural assets and the implementation of sustainable resource management, such as water and energy conservation. Participants in the qualitative interview indicated a variety of environmental performance factors for CBTEs. In particular, the most frequent environmental performance approach is raising environmental awareness in the community (N = 6, mentioned 9 times). This orientation is evidenced by the statements, participant (O8) emphasized that: *"Tourism brings income and helps change local mindsets. As people earn from tourism, they become more aware of cleanliness and the environment, gradually abandoning outdated customs. This awareness also encourages better infrastructure, as local authorities invest more in roads and community development"*, and participant (O8) also mentioned that: *"Environmental*

issues partly depend on travel companies and tourists' awareness. If guides remind visitors not to throw trash, they usually follow. However, some still throw bottles into the rice fields after drinking, and I've had to remind them myself. This remains a concern, but in recent years, people's environmental awareness has been improving, both among tourists and within the local community". At a different scale, the environmental performance approach is also concerned with encouraging the protection of natural resources (N = 5, mentioned 8 times). Participant O6), for example, highlighted that *"We plan to renovate the pool and gala areas to host live shows on weekends. Our place was originally built from natural stone, which inspired the name "Stone Garden." As we develop the area, we aim to preserve its natural features and promote harmony between tourism and nature, similar to Da Lat, where the environment is part of the experience. By organizing live shows that highlight the beauty of stone and nature, we hope to attract more visitors while encouraging the protection of natural resources"*. Additionally, environmental performance also mentioned maintaining biodiversity (N = 5, mentioned 8 times), participant (O6), for example, mentioned that *"Our homestay follows the traditional style of the Thai ethnic group, featuring stilt houses that blend naturally with the surrounding environment. The exterior is built in the traditional stilt-house form, while the interior is equipped with modern comforts such as air conditioning, bedding, and a water heater. By preserving traditional architecture and using eco-friendly materials, we help maintain local biodiversity, allowing the natural landscape and ecosystem to remain largely undisturbed"*. As a result, the findings show that CBTEs play a vital part in enhancing environmental performance through increased awareness, conservation, and sustainable practices.

4.1.2.2. Social media marketing adoption factors and measures

Social media marketing empowers tourism by enabling local communities to shape their perspectives and establish their presence within the global tourism industry. The outcomes of the qualitative study also exposed that many participants demonstrated varying levels of adoption of social media marketing in CBTEs, as summarized in Table 16. Some of the variables, such as building trust to increase customer loyalty and retention (N = 7, mentioned 11 times), participant (O5), for example, mentioned that *"Most customers now contact us directly, either by booking through Facebook or by calling after finding our number online. This direct communication shows the trust they have in our service. Because they know they will receive good quality and personal attention, many guests return and recommend us to*

others. Maintaining honesty, reliability, and consistent service helps strengthen customer loyalty and long-term relationships”.

Table 16. Factors and variables of social media marketing adoption

Sub-theme	Number of respondents (N = 14)	Number of comments	Exemplary comments
Creating and distributing engaging marketing content	12	22	Posting about local dishes, scenery, and seasonal highlights; Posting short videos of homestays and local scenery
Building trust to increase customer loyalty and retention	7	11	Satisfying customers encourages referrals; Word-of-mouth builds loyalty
Fostering two-way communication to build customer relationships	11	19	Guests acquired via Facebook and friend recommendation
Collaborating with travel agencies	11	16	Collaborating with travel agents for customer acquisition; Using Booking.com and TripAdvisor to attract customers
Engaging with tourism platforms to access customer information	12	35	International visitors book through major platforms

Source: Qualitative study results (2025)

In another finding, fostering two-way communication to build customer relationships (N = 11, mentioned 19 times), participant (O1) highlighted that *“When I share photos of local accommodations, dining, and activities on my social media, more people become interested in visiting. But it’s not just about posting; so, two-way communication is key. By replying to comments, answering questions, and listening to feedback, I can connect with visitors and make them feel valued. This interaction builds trust, encourages repeat visits, and strengthens long-term relationships”*; Engaging with tourism platforms to access customer information (N = 12, mentioned 35 times), participant (O3) emphasized that *“Advertisements usually include both images and articles, which are shared across various Facebook pages such as my personal page, colleagues’ pages, and the facility’s Fanpage. We also post in relevant Facebook groups to reach more potential visitors. By engaging with these tourism platforms, we can interact directly with customers, understand their interests, and gather valuable feedback to improve our services and marketing strategies”*; Creating and distributing engaging marketing content (N = 12, mentioned 22 times), participant (12) mentioned that *“I focus on creating short, engaging videos about homestays and the local scenery to attract visitors. I often take guests out to film local customs, the rice harvest season, or the beautiful*

water season. I also make an effort to regularly post these videos and photos on my Fanpage to keep followers interested and connected. This consistent and creative content helps promote the destination and encourages more people to visit”; Collaborating with travel agencies (N = 11, mentioned 16 times), participant (O1), for example, pointed out that “Each channel has its strengths, and travel agencies help reach travelers who may not be active online. By combining online promotion with agency partnerships, we can attract more visitors and create sustainable tourism growth”. Overall, the findings reveal that social media marketing adoption greatly enhances the competitiveness and visibility of CBTEs by empowering local communities to supervise their own growth in tourism. Additionally, these practices demonstrate that social media marketing not only promotes destinations effectively but also supports sustainable growth and community empowerment in CBTEs.

4.1.2.3. Local authority stakeholders' factors and measures

Stakeholder collaboration plays a critical part in CBTE development, particularly in social media marketing, where the involvement of local government remains essential. From both community and private partners’ perspectives, government engagement is necessary, primarily in the areas of oversight, inspiration, and arbitration, rather than direct management. In the qualitative research interview, respondents highlighted six variables to measure local authority stakeholder involvement, as summarized in Table 17.

Table 17. Factors and variables of local authority stakeholders

Sub-theme	Number of respondents (N = 14)	Number of comments	Exemplary comments
Supporting safety and environmental regulations	12	12	Conditional business activities: security, fire, food safety
Supporting for credit policy	5	7	Bank loans with favorable interest rates; Rural loans limited; Land certificate needed as collateral
Supporting for training and coaching	14	18	Annual training on maps, policies, homestays, food safety, fire prevention, social media courses
Supporting for infrastructure investment	8	10	State-funded roads, sidewalks, streetlights
Supporting for linking with other tourism businesses	6	7	Collaboration with travel agencies and drivers
Supporting information provision	11	18	Pages updating locals on festivals and programs; Government Fanpage and community groups

Source: Qualitative study results (2025)

In particular, the most frequent sub-themes establish supporting for training and coaching (N = 14, mentioned 18 times). This orientation is evidenced by the statements, participant (O12) said that: *“In recent years, the government has shown strong support for local development. Although there are no special programs in the commune, the cultural department organizes annual training sessions on English language, homestay management, reception, housekeeping, cooking, and barista skills. These efforts show the government’s commitment to training and coaching”*. In addition, some of the important variables, such as supporting safety and environmental regulations (N = 12, mentioned 12 times), participant (O1), for example, mentioned that *“Most community-based tourism areas are in remote, mountainous regions. The government has introduced various programs, such as Policy 135, to support local people and promote sustainable development. These policies also focus on improving safety standards and enforcing environmental regulations, helping communities grow while preserving Vietnam’s natural and cultural heritage”*; Supporting information provision (N = 11, mentioned 18 times), participant (O8) highlighted that *“The local government manages an official Fanpage to promote tourism in Mu Cang Chai and has created online groups with tens of thousands of members. These platforms help share information, connect people who love the area, and strengthen communication between the community, visitors, and local authorities”*. Participant (O3) also mentioned that *“State tourism management agencies have local tourism promotion offices with dedicated resources for marketing and communication. They organize training programs and promotional events, inviting TV stations, KOLs, experts, and media companies to enhance information sharing and promote local tourism more effectively”*; Supporting for infrastructure investment (N = 8, mentioned 10 times), participant (O4) emphasized that *“Our local government actively supports infrastructure development by building and repairing roads, planting trees, and installing streetlights. Through medium-term public investment, the state funds projects such as asphalt roads, sidewalks, and lighting systems in villages. In addition, both the government and local residents collaborate to build concrete roads in smaller alleys and expand streetlight coverage, improving overall community infrastructure”*; Supporting for linking with other tourism businesses (N = 6, mentioned 7 times), participant (O1), for example, said that *“Every year, training sessions are organized for homestay and resort owners to update them on new government policies and community development plans. These programs also support locals in building homestays, preserving culture, and joining study trips to other destinations. Such activities help strengthen connections and cooperation between CBTEs and other tourism businesses, promoting shared growth and learning”*; Supporting credit policy (N = 5,

mentioned 7 times), participant (O3) pointed out that *“New tourism service businesses and community cultural tourism villages receive government support through credit policies. Each household or business can access financial assistance of several million Vietnam dong for each family and business household to invest in construction, equipment, and facilities. These credit programs help improve infrastructure and ensure more consistent development across the community”*. Therefore, local government support plays a crucial part in enhancing the sustainability and growth of CBTEs, with a strong governmental commitment to capacity building, sustainable tourism development, and community empowerment.

4.1.3. Literature review findings (Deductive analysis)

Using inductive analysis, the study identified one construct with 16 variables for sustainability performance, five variables for social media marketing adoption, and six variables for local authority stakeholders. These variables were then organized and evaluated by deductive analysis in the context of previous literature, which supported the selection of factors across the three dimensions. Most of the measurement indicators derived from interviews were consistent with prior research, providing theoretical and empirical justification for their inclusion. Some items from the literature were eliminated because of limited contextual significance, while a few new items emerging from the qualitative study were incorporated to better measure these dimensions and constructs. Table 18 presents the justification for the dimensions and variables across these three constructs.

Table 18. Dimensions and variables in relevant literature

Constructs	Items	Statements	Source
Economic performance (EP)	EP1	Increasing number of customers	(Qalati et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2018), (Franzoni, 2015), Qualitative result
	EP2	Increasing customer loyalty and retention	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015), Qualitative result
	EP3	Increasing customer relationships	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015), Qualitative result
	EP4	Reducing the cost of marketing activities, such as promotion and advertising.	(Franzoni, 2015), (Qalati et al, 2022), (Tajudeen et al, 2018), (Ngo et al, 2018), Qualitative result
	EP5	Increasing information accessibility	(Qalati et al, 2022), (Tajudeen et al, 2018), (Franzoni, 2015), Qualitative result
	EP6	Increasing traditional sources of income	(Tajudeen et al, 2018), (Qalati et al, 2022) Qualitative result
	EP7	Developing a variety of tourism products and services	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
Social performance (SP)	SP1	Empowering women through tourism and financial independence	Qualitative result
	SP2	Creating job opportunities for local community	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	SP3	Participating in tourism activities of the whole community	(Ngo et al, 2018), Qualitative result
	SP4	Preserving indigenous culture and local traditions	(Ngo et al, 2018), Qualitative result
	SP5	Concerning with developing the local community	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
Environmental performance (ENP)	ENP1	Encouraging the protection of natural resources	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	ENP2	Maintaining biodiversity	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	ENP3	Raising environmental awareness in the community	(Tseng et al, 2018), (Franzoni, 2015), Qualitative result
	ENP4	Saving energy in community	Qualitative result
Social media marketing adoption (SMA)	SMA1	Creating and distributing engaging marketing content	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA2	Building trust to increase customer loyalty and retention	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA3	Fostering two-way communication to build customer relationships	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA4	Collaborating with travel agencies	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
	SMA5	Engaging with tourism platforms to access customer information	(Tajudeen et al, 2018), (Qalati et al, 2022), Qualitative result
Local authority Stakeholders (LO)	LO1	Supporting safety and environmental regulations	(Ngo et al, 2018), (Ngo et al, 2020), Qualitative result
	LO2	Supporting for credit policy	(Luan et al, 2023), (Truong et al, 2014), Qualitative result
	LO3	Supporting for training and coaching	(Truong et al, 2014), (Ngo et al, 2020), (Manyara and Jones, 2007), (Manyara and Jones, 2007), Qualitative result
	LO4	Supporting for infrastructure investment	(Shone et al, 2016), (Truong et al, 2014), (Kontogeorgopoulos et al, 2014), Qualitative result
	LO5	Supporting for linking with other tourism businesses	(Ngo et al, 2020), (Manyara and Jones, 2007), Qualitative result
	LO6	Supporting information provision	(Manyara and Jones, 2007), Qualitative result

Source: Qualitative study results (2025)

All variables and dimensions of sustainability performance were evaluated and categorized according to common themes identified through the interviews and the previous literature. Particularly, this study categorized the economic performance dimension in accordance with prior studies (Qalati et al, 2022; Tajudeen et al, 2018), social performance (Franzoni, 2015; Ngo et al, 2018; Tseng et al, 2018), and environmental performance (Franzoni, 2015; Tseng et al, 2018). Furthermore, the adoption of social media marketing was confirmed by prior research and the interview analysis conducted in this study. The findings are similar to previous scholarly studies (Qalati et al, 2022; Tajudeen et al, 2018). Moreover, local authority stakeholders were validated through previous studies and the evaluation of interviews conducted in this research. These results are similar to prior scholarly literature (Manyara and Jones, 2007; Ngo et al, 2020; Truong et al, 2014). New results from the qualitative section, validated in accordance with the available research, are presented in Table 19.

Table 19. New findings from qualitative study

Constructs	Items	Statements
Social performance (SP)	SP1	Empowering women through tourism and financial independence
Environmental performance (EP)	EP4	Saving energy in community

Source: Qualitative study results (2025)

4.2. Quantitative Pilot Study (Phase 2)

The quantitative study consists of two phases: phase 2, which involves a pilot survey to test and refine the developed research instrument, and phase 3, which includes a final survey for empirical validation of the proposed model. Regarding the qualitative findings from phase 1, the researcher finalized the conceptual framework and measurement instrument during phase 2. The pilot survey in this phase aimed to guarantee the validity, reliability, and clarity of the measurement items, allowing for necessary modifications before implementing the full-scale study. The findings of the pilot survey are indicated in the following sections

4.2.1. Pilot survey process

Prior to the final survey, this study performed a pilot study to assess the reliability and validity of 27 items derived from a qualitative study (Phase 1) (Lewis et al, 2005). Additionally, this study conducted a pilot test of twenty-six measurement items related to the antecedents of social media marketing adoption, adapted from prior literature on perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, and interactivity (Chatterjee and Kar, 2020; El-Gohary, 2012; Tajudeen et al, 2018). Google Forms was sent out to a

relevant target population of the final research to confirm the suitability of the data and the relevance of the instrument. The pilot research lasted over a period of one month, starting on January 11th, 2025, and concluding on January 30th, 2025. Data were collected utilizing a five-point Likert scale. During the pilot research, 52 responses were collected from CBTEs in Vietnam, and these were excluded from the final survey to avoid multiple contacts with the same businesses. The results of the pilot survey are presented below.

4.2.2. Validity analysis - Exploratory factor analysis (EFA)

This research established a measurement scale for three constructs, including social media marketing adoption, local authority stakeholders, and sustainability performance, by reviewing relevant literature, conducting semi-structured interviews with 14 CBTE owners, and consulting with academic experts. Based on the pilot survey data, an exploratory factor analysis (EFA) was performed to purify the three scales and comprehend the latent structure of the variable constructs (Netemeyer et al, 2003).

Before conducting the EFA, the appropriateness of the data for factor analysis was assessed using the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity. The findings (Table 20) showed that Bartlett’s Test of Sphericity was significant ($p < 0.05$), suggesting that correlations between variables were sufficient for factor analysis. Moreover, the KMO value exceeded 0.6, demonstrating that the sample size was adequate (Kaiser, 1974). Therefore, the data were proven appropriate for conducting EFA.

Table 20. Kaiser- Meyer-Olkin and Bartlett's test findings

		Sustainability performance	Social media marketing Adoption	Local authorities
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.691	0.690	0.879
Bartlett's Test of Sphericity	Approx. Chi-Square	499.709	102.204	281.789
	df	120	6	15
	Sig.	0.000	0.000	0.000

Source: Pilot study results (2025)

An EFA was completed employing a Principal Component Analysis (PCA) with the Varimax rotation method to define the reliability. PCA gives tools for evaluating the structure of the interrelationships between an extensive number of items by creating groupings of variables that are highly connected (Hair et al, 2010). Factors with Eigenvalues less than 1 were regarded as insignificant and were consequently removed. Table 21 indicates EFA results for the refined qualitative-derived scale in the pilot study.

Table 21. EFA findings of the refined scale of qualitative study in the pilot research

Factors	Items	Loadings	Communality	Eigenvalue	% of Variance	Cronbach's Alpha
Economic performance (EP)	EP1	0.701	0.829	4.873	30.456	0.850
	EP2	0.725	0.741			
	EP3	0.829	0.818			
	EP4	0.827	0.801			
	EP5	0.749	0.796			
Social performance (SP)	SP1	0.937	0.915	2.744	17.151	0.885
	SP2	0.79	0.730			
	SP4	0.927	0.870			
Environmental performance (ENP)	ENP1	0.729	0.735	2.147	13.417	0.908
	ENP2	0.821	0.839			
	ENP3	0.877	0.859			
Removed items with low factor loading, crossloading, or Cronbach Alpha						
Economic performance (EP)	EP6	0.370	0.473	3.405	68.095	0.929
	EP7	0.111	0.762			
Social performance (SP)	SP3	0.222	0.63	3.405	68.095	0.929
	SP5	0.276	0.74			
Environmental performance (ENP)	ENP4	0.133	0.678			
Factors	Items	Loadings	Communality	Eigenvalue	Cumulative variance %	Cronbach's Alpha
Social media marketing adoption (SMA)	SMA1	0.708	0.713	3.405	68.095	0.929
	SMA2	0.662	0.897			
	SMA3	0.662	0.897			
	SMA5	0.816	0.897			
Removed items with low factor loading, crossloading, or Cronbach Alpha						
Social media marketing adoption (SMA)	SMA4	0.136	0.733			
Factors	Items	Loadings	Communality	Eigenvalue	Cumulative variance %	Cronbach's Alpha
Local authorities (LA)	LA1	0.786	0.737	4.708	78.464	0.939
	LA2	0.865	0.795			
	LA3	0.897	0.847			
	LA4	0.885	0.847			
	LA5	0.874	0.821			
	LA6	0.868	0.819			

Source: Pilot study results (2025)

The factor analysis identified three latent factors related to sustainability performance, each with Eigenvalues exceeding 1, accounting for 30.456%, 17.151%, and 13.417% of the

variance, respectively. Additionally, one latent factor was identified for social media marketing adoption and one for local authority stakeholders, with Eigenvalues over 1, explaining 68.095% and 78.464% of the variance, respectively. These procedures of the pilot study identified five factors associated with three constructs, each demonstrating significant loadings of all items on their respective factors, thereby representing the multidimensional aspects of transformation.

The minimum threshold for factor loadings was established at 0.50 (Hair et al, 2010). When defining the underlying dimensions and assigning names to factors, variables with higher factor loadings were considered more relevant and had a greater impact on the factor names or labels (Hair et al, 2019). Sixteen sustainability performance items were reduced to eleven items (Table 21). Particularly, two items from the economic performance (EP) factor (“EP6: Increasing traditional sources of income”, “EP7: Developing a variety of tourism products and services”) did not significantly load on any dimension. Two items from social performance (SP) factor (“SP3: Participating tourism activities of the whole community”, “SP5: Concerning with developing the local community”) failed to load on any dimension significantly. One item from the environmental performance (ENP) factor (“ENP4: Saving energy in community”) did not significantly load on any dimension. Hence, the five items of the sustainability performance variable were removed from further analysis. Additionally, five social media marketing adoption (SMA) items were reduced to four items. Particularly, one item from the social media marketing adoption (SMA) factor (“SMA4: Collaborating with travel agencies”) did not significantly load on any dimension. Hence, this item was removed from further analysis. Moreover, six items of local authority stakeholders met the loading criteria and were therefore retained for further analysis.

In addition, twenty-six measurement scales for factors of social marketing adoption were adapted from the previous research (perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, and interactivity) (Chatterjee and Kar, 2020; El-Gohary, 2012; Tajudeen et al, 2018). The adaptation of a questionnaire from prior research necessitates the implementation of a pilot survey to rigorously assess the instrument’s validity, reliability, and contextual appropriateness for the intended study environment (Collins, 2003). The result of the factor loading of the antecedents of social media marketing adoption is shown in Table 22. The loading of all constructs analysis was internally consistent, with values ranging from 0.622 to 0.883, thereby meeting the established criteria (Hair et al, 2010). Therefore, 26 items of 6 variables of antecedents of social media marketing adoption were used for further analysis.

Table 22. EFA result of the refined factors of social media marketing adoption scale in the pilot research

Factors	Items	Loadings	Communality	Eigenvalue	% of Variance	Cronbach's Alpha
Perceived usefulness (PEU)	PEU1	0.636	0.687	11.616	44.678	0.894
	PEU2	0.673	0.663			
	PEU3	0.730	0.676			
	PEU4	0.785	0.827			
	PEU5	0.817	0.882			
	PEU6	0.685	0.765			
Perceived ease of use (EOU)	EOU1	0.656	0.641	2.425	9.327	0.901
	EOU2	0.722	0.705			
	EOU3	0.658	0.798			
	EOU4	0.746	0.780			
	EOU5	0.715	0.815			
Cost (COS)	COS1	0.855	0.887	2.154	8.284	0.957
	COS2	0.823	0.894			
	COS3	0.870	0.906			
	COS4	0.810	0.882			
Compatibility (COM)	COM1	0.860	0.869	2.154	8.284	0.928
	COM2	0.754	0.787			
	COM3	0.798	0.890			
	COM4	0.780	0.819			
Facilitating conditions (FCO)	FCO1	0.672	0.709	1.198	4.608	0.887
	FCO2	0.883	0.931			
	FCO3	0.850	0.781			
	FCO4	0.772	0.719			
Interaction (INT)	INT1	0.761	0.698	1.032	3.971	0.759
	INT2	0.754	0.701			
	INT3	0.622	0.650			

Source: Pilot study results (2025)

4.2.3. Reliability analysis (Cronbach's Alpha)

Pilot research evaluated questionnaire clarity and answer consistency. Reliability analysis was used on the pilot survey responses using Cronbach's alpha in SPSS, as reliability is a key measure of questionnaire quality (Churchill Jr, 1979). Items with a Cronbach's alpha below 0.70 were excluded from the evaluation (Hair et al, 2010). The reliability results (Table 21) indicated that all constructs had high internal consistency, with Cronbach's alpha values varying from 0.850 to 0.939. Specifically, the antecedents of social media marketing adoption showed values between 0.759 and 0.957, confirming the robustness and reliability of the measurement instrument (Table 22). Based on these results, the questionnaire was considered suitable for final data collection and analysis.

Following the reliability analysis, a total of 11 items (out of 16) for sustainability performance, 4 items (out of 5) for social media marketing adoption, 6 items (out of 6) for local authority stakeholders, and 26 items for the antecedents of social media marketing adoption were retained for further analysis. Overall, the pilot study reduced the initial 53 items to 47, which were then refined further for the final survey in phase 3. Additionally, an alternative model was presented to compare explanatory power between models.

4.3. Quantitative Final Survey (Phase 3)

By using the results of reliability and validity of the questionnaire from the pilot survey (phase 2), PLS-SEM was undertaken to estimate the proposed framework in the final survey (phase 3). For the empirical validation analysis, SmartPLS 4 statistical software was used. This finding utilized both descriptive and inferential statistical methods to evaluate the quantitative data collected. Descriptive statistics (including mean, standard deviation, percentage, and frequency) were utilized to characterize demographic variables. At the same time, inferential statistical methods facilitated the formulation of decisions regarding the proposed model of this research. Particularly, according to the proposed two-step techniques for applying PLS-based SEM: first, the variables are evaluated using the measurement model, which includes reliability and validity; secondly, the path is analyzed, and the model parameters are estimated using the structural model (Hair et al, 2019)

4.3.1. Preliminary data analysis

4.3.1.1. Data coding

Data entry was performed using coding after completion of the final survey. Answers are converted to numerical values and categorized during the coding process (De Vaus, 2013). The researchers can recognize code names, variable fields, and descriptions through the use of a codebook (Zikmund et al, 2000). A codebook was created by the researcher to identify all survey questions. Consequently, the raw data were initially input into Microsoft Excel and later into SPSS software version 26 using the codebook, following the collection of responses from the questionnaire.

4.3.1.2. Data screening and cleaning

Before conducting statistical analysis, it was crucial to ensure that the collected data were accurately entered, complete, and valid, as well as free from missing values, outliers, and distributional irregularities (Chapman, 2005). To minimize data entry errors, all questionnaire responses were collected via Google Forms. The researcher, together with one research assistant and one expert, independently verified the data screening and cleaning processes

before the final analysis. In total, 391 responses were received and entered into SPSS and Microsoft Excel for a three-step data screening and cleaning process: (1) error and missing value analysis, (2) detection of out-of-range values, and (3) identification and removal of outliers. Firstly, the researcher found and corrected errors and missing in the value analysis. The online questionnaire required participants to answer every question before submitting, eliminating missing or incomplete responses. The online survey had no incomplete responses or missing values because respondents had to answer all questions to submit the form. Thus, the mandatory answer to all survey questions has removed incomplete questionnaires and missing values in this research. However, 10 responses were removed because they contained identical answers for all questions, reducing the dataset to 381 valid cases after the initial screening. Secondly, a frequency evaluation was conducted to identify any out-of-range values; however, no out-of-range values were found in the survey data. Thirdly, a boxplot analysis was used to detect extreme outliers in the survey data. Four outliers were identified, as indicated in Figure 9, and subsequently eliminated from the dataset. After completing all data screening and cleaning procedures, a final total of 377 valid responses remained for the statistical analysis phase, ensuring data quality and reliability for further examination.

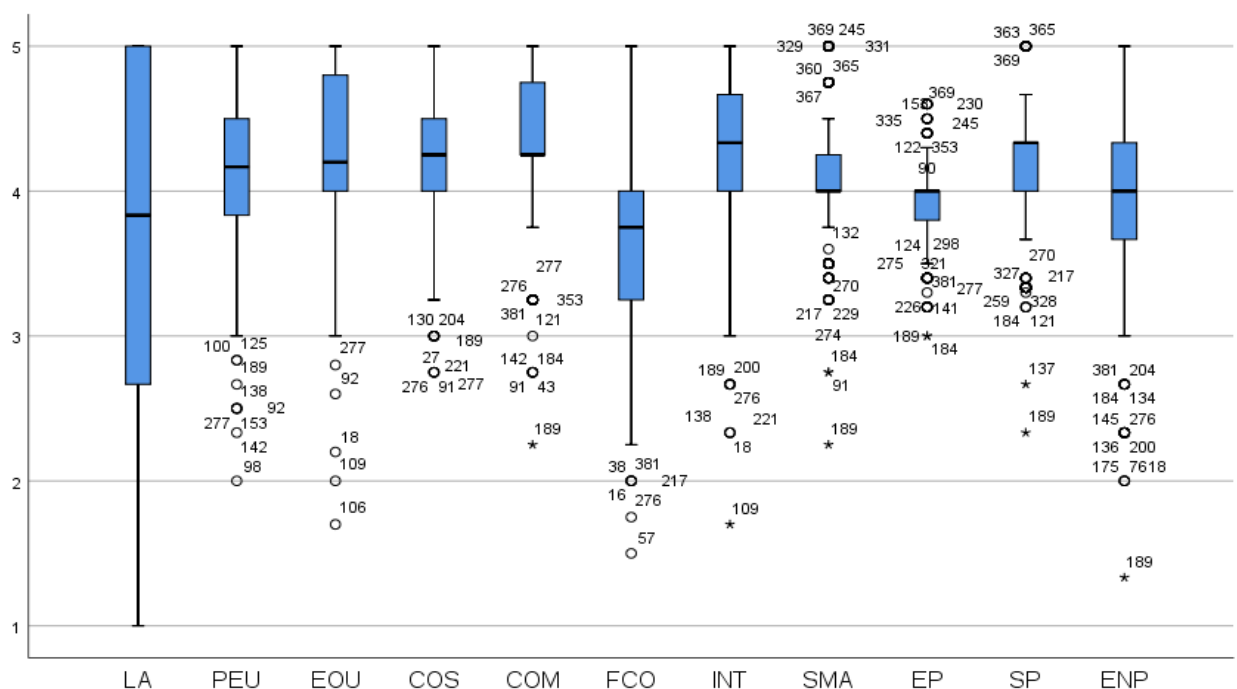


Figure 9. Box plot analysis

Source: Quantitative study results (2025)

4.3.1.3. Data normality

Normality testing is essential to determine whether a dataset maintains a normal distribution, as many parametric statistical tests presume normality of data (Shapiro et al, 1968). There are

two common approaches to assessing normality: graphical methods and numerical methods. This study adopted numerical methods because they are considered more objective and widely used for testing the normality of data (Shapiro et al, 1968; Yap and Sim, 2011). Specifically, numerical tests such as skewness and kurtosis, the Kolmogorov–Smirnov test, and the Shapiro–Wilk test were applied. The gathered data were evaluated with SPSS version 26 to assess the normality of all variables included in the research.

Table 23 indicates the outcomes of the skewness and kurtosis analysis. The z-values of skewness and kurtosis should be between -1.96 and +1.96 to indicate normality (Doane and Seward, 2011; Shapiro and Wilk, 1965). However, the results revealed that all skewness z-values were outside this acceptable range. Similarly, kurtosis z-values for the variables LA, COM, INT, SMA, and EP also exceeded the threshold. These findings indicate that the data exceeded the normality assumption, thus demonstrating that the dataset was not normally distributed.

Table 23. Skewness and kurtosis results

	Skewness			Kurtosis		
	Statistic	Std. Error	Z-values	Statistic	Std. Error	Z-values
LA	-0.661	0.126	-5.246	-0.932	0.251	-3.713
PEU	-0.706	0.126	-5.603	0.210	0.251	0.837
EOU	-0.576	0.126	-4.571	0.252	0.251	1.004
COS	-0.368	0.126	-2.921	0.141	0.251	0.562
COM	-1.189	0.126	-9.437	1.512	0.251	6.024
FCO	-0.453	0.126	-3.595	0.041	0.251	0.163
INT	-0.893	0.126	-7.087	1.165	0.251	4.641
SMA	-0.791	0.126	-6.278	2.004	0.251	7.984
EP	-0.880	0.126	-6.984	4.321	0.251	17.215
SP	-0.762	0.126	-6.048	0.343	0.251	1.367
ENP	-0.744	0.126	-5.905	0.396	0.251	1.578

Source: Quantitative study results (2025)

Furthermore, Table 24 displays the findings of the Kolmogorov–Smirnov test and the Shapiro–Wilk test. The outcomes showed that each of the constructs was statistically significant at $p < 0.05$ (Shapiro and Wilk, 1965), confirming that the sample data did not follow a normal distribution and consequently necessitating the use of a non-parametric test. Therefore, the data in this analysis demonstrate a non-normal distribution.

Table 24. Normality test results

	Kolmogorov-Smirnova		Shapiro-Wilk	
	Statistic	Sig.	Statistic	Sig.
LA	0.153	0.000	0.857	0.000
PEU	0.147	0.000	0.940	0.000
EOU	0.175	0.000	0.890	0.000
COS	0.143	0.000	0.952	0.000
COM	0.229	0.000	0.846	0.000
FCO	0.140	0.000	0.968	0.000
INT	0.189	0.000	0.888	0.000
SMA	0.215	0.000	0.918	0.000
EP	0.246	0.000	0.842	0.000
SP	0.221	0.000	0.913	0.000
ENP	0.180	0.000	0.936	0.000

Source: Quantitative study results (2025)

4.3.1.4. Common method bias

Common method bias can arise when data for both dependent variables and independent variables are gathered simultaneously in a cross-sectional design, potentially distorting research findings (Kock et al, 2021). As this research applied a cross-sectional approach, several preventive procedures were implemented to minimize potential common method bias (Podsakoff et al, 2003). Firstly, data were gathered from owners and managers with sufficient knowledge of the research topic to ensure response accuracy. Secondly, the measuring items were created to be specific and basic, which were translated into Vietnamese (the respondent's mother tongue) through a backward translation technique to eliminate ambiguity. Thirdly, questions evaluating independent and dependent variables were divided into distinct and separate sections to reduce respondent bias (Nguyen and Llosa, 2023). Finally, respondents were guaranteed that their responses would be kept anonymous and confidential, which encouraged honesty and precision. These integrated procedural measures effectively mitigated the possibility of common method bias in the research.

The research also employed statistical methods to identify and mitigate common method bias. Firstly, this study employed Harman's single-factor technique, which revealed that a single factor explained only 28.509% of the variance (Table 25), a result found acceptable as it falls below the 50% threshold (Harman, 1976). Secondly, common method bias is present in data when the correlation among the variables gets higher than 0.9 (Bagozzi et al, 1991). There are no variables that exceeded the recommended level in discriminant validity (Fornell–Larcker criterion) in our study (Table 31). Thirdly, this research also evaluated common method bias by utilizing the variance inflation factor ($VIF < 3$) as a complete collinearity method, which is

widely used and should be implemented. The results of Multicollinearity Statistic (VIF) for indicators in this research are below the threshold that is considered acceptable (Table 42). As a result, there was no common method bias problem in this research.

Table 25. Results of Common method bias

Item	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.078	29.953	29.953	13.399	28.509	28.509
2	4.716	10.033	39.986			
3	2.557	5.441	45.427			
.....						

Source: Quantitative study results (2025)

4.3.2. Demographic Analysis

The descriptive statistics of respondents offer demographic information regarding the respondents. In the concluding survey, respondents answered eight questions concerning demographic factors. Table 26 displays the demographic and occupational profiles of the 377 participants involved in the investigation. It includes information on gender, age, education level, ethnic background, work experience, job position, income from tourism, and the specific tourism sectors in the following section.

Respondents' gender

The respondents were requested to specify gender by selecting either "female" or "male." The results showed that 59.68% of respondents were male, while 40.32% were female, showing a relatively balanced distribution of genders among owners of CBTEs. However, the findings also imply that men are slightly more active and engaged in tourism-related activities in the study area compared to women.

Age of respondents

Age indicates the participant's maturity and the reliability of the information shared (Haider et al, 2021). Respondents were requested to choose the age category that best matched them. The study results indicated that 177 respondents (46.95%) were aged between 31 and 40 years, representing the majority of the dataset. In addition, 93 (24.67%) of respondents were in the 41–50-year age group, while 80 participants (21.22%) were aged from 21 to 30 years. By contrast, a few of the respondents were more than 50 years old, with 16 respondents (4.24%) and 9 respondents (2.39%) in the 51–60-year age range and over 60 years old. These

findings imply that the owners of CBTEs are primarily composed of people with productive working years, particularly between 31 and 50 years old.

Table 26. Demographics of participants

Variables	Category	Frequency (n=377)	Percentage
Gender	Male	225	59.68
	Female	152	40.32
Age	Under 20 years	2	0.53
	21-30 years	80	21.22
	31-40 years	177	46.95
	41-50 years	93	24.67
	51-60 years	16	4.24
	Over 60 year olds	9	2.39
Education level	No education	2	0.53
	Primary school	1	0.27
	Secondary school	49	13.00
	High school	158	41.91
	Vocational training	76	20.16
	University degree and higher	91	24.14
Ethnic groups	Kinh	78	20.69
	H'Mông	75	19.89
	Dao	37	9.81
	Thai	66	17.51
	Muong	62	16.45
	Tay	44	11.67
	Other	15	3.98
Working experience	1-5 years	155	41.11
	6-10 years	176	46.68
	11-15 years	34	9.02
	16-20 years	6	1.59
	Over 20 years	6	1.59
Position	Owner	321	85.15
	Manager	56	14.85
Income from tourism	Under 20%	35	9.28
	21-40%	76	20.16
	41-60%	141	37.40
	61-80%	79	20.95
	Over 80%	46	12.20
Tourism sector	Accommodation	369	97.88
	Food and beverage	302	80.11
	Travel agencies	99	26.26
	Transportation	66	17.51
	Attractions	54	14.32

Source: Quantitative study results (2025)

Educational qualifications of respondents

In this questionnaire, the educational data of the respondents were collected. Survey findings indicated that 158 respondents (41.91%) had completed high school, representing the largest proportion of the sample. In comparison, 91 of the respondents (24.14%) studied at a university or postgraduate level, and 76 respondents (20.16%) had received a qualification in vocational education. In contrast, 49 respondents 13% had completed secondary school, and only 3 respondents (0.8%) had no education and finished primary school. These findings imply that the owners and managers who are running CBTEs in Vietnam have limitations in university and postgraduate education.

Ethnic group

CBT is a form of sustainable tourism where local people actively participate in the development, operation, and planning of tourism activities. Those tend to be minority or ethnic people who protect and preserve their traditions, customs, and cultures. Therefore, respondents were asked to specify the ethnic groups in which they are living. It was found that Kinh and H'Mong are the most common ethnic groups, with 78 and 75 respondents accounting for 20.69% and 19.89% respectively. In addition, following that of other ethnic groups, such as Thai group with 66 people (17.51%), Muong group with 62 people (16.45%), Tay group with 44 people (11.67%), Dao group with 37 people (9.81%), and other ethnic groups with 15 people (3.98%). This shows a wide ethnic participation in tourism activities.

Position

Data were collected from CBTEs in Vietnam. Participants were requested to specify their positions within the business. It was determined that the majority (85.15%) of the participants were owners of the surveyed enterprise. By contrast, only 56 (14.85%) of respondents held managerial positions. This distribution was logical as small, owner-operated businesses mainly dominate the CBT sector.

Experience of respondents

Experienced owners might contribute more significantly to the organization than newly appointed owners. The study results indicated that 176 people (46.68%) had 6 - 10 years of working experience, and 155 participants (41.11%) reported 1-5 years of experience in the tourism industry. By contrast, 34 respondents (9.02%) reported 11-15-year working experience, while respondents had 16-20-year working experience and over 20-year working experience, by each 6 people (1.59%).

Tourism sector

Participants were requested to provide the sector in which they work. According to the study results, the majority of businesses have been running in accommodation (97.88%) and food and beverage (80.11%). Because most of CBTEs' opening accommodation, such as homestay and bungalow, tend to combine food and beverage service at the same time for tourists. By contrast, CBTEs that operated tour packages, transportation, and attractions sectors accounted for 26.26%, 17.51%, and 14.32% respectively, in survey results. This distribution indicates that Vietnam's CBT business is dominated by accommodation and food and beverage segments.

Income from tourism

The survey also obtained data on the household income from tourism of participating in the study. It was found that tourism is the most important income source for local people in the mountainous region in the North of Vietnam. Particularly, 141 people (37.40%) mentioned that income from tourism accounted for 41%-60% of total household income, followed by 61-80% of total household income with 79 people (20.95%) and over 80% of total household income with 46 people (12.20%). By contrast, 76 people (20.16%) mentioned that tourism income accounted for 21-40% of total household income, while only 35 people (9.28%) had tourism income under 20% of total household income. This highlights that tourism is a significant source of livelihood for the local community.

4.3.3. Social media marketing of CBTEs in Vietnam

Figure 10 displays the most common social media marketing applications used by CBTEs in Vietnam. Particularly, Facebook is an important application of CBTEs in marketing their businesses to tourists, which includes a large users of 342 (90.72%) of 377 respondents, followed by the Zalo application with 277 respondents (73.47%). By contrast, other applications were less popular, such as TikTok with 95 respondents (25.2%), WhatsApp with 38 respondents (10.08%), Instagram with 29 respondents (7.96%), and YouTube with 27 respondents (7.16%). These findings imply that social media marketing applications such as Facebook and Zalo play a significant role in marketing of CBTEs in sustainable tourism in mountainous and remote regions in Vietnam.

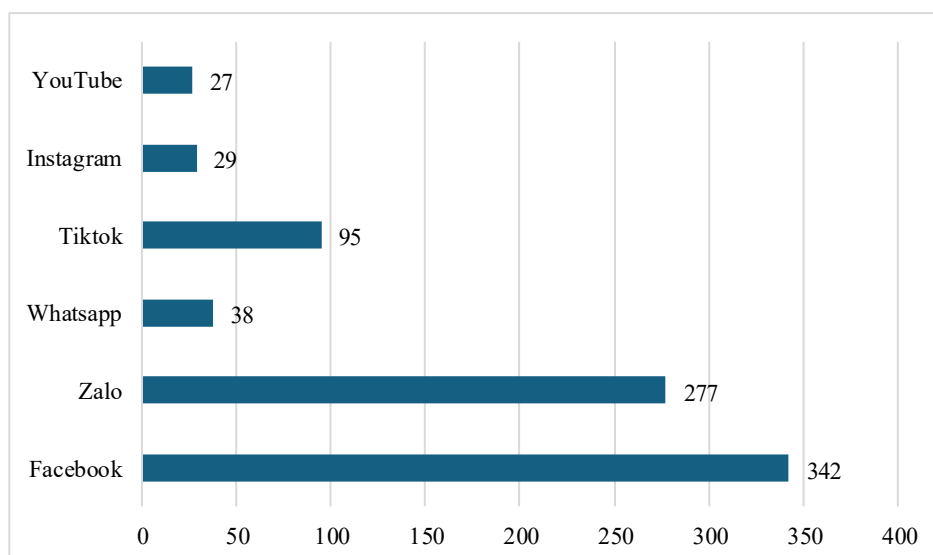


Figure 10. Social media applications used by CBTEs in Vietnam

Source: Quantitative study results (2025)

4.3.4. Local authority stakeholders for CBTEs in Vietnam

Local authority stakeholders contribute to the marketing outcomes of CBTEs (Ngo et al, 2018). This stakeholder establishes a policy environment that guides the marketing of CBTEs to achieve the planning objectives (Ngo et al, 2018). The local authority addressed many important policies to support increasing the operational efficiency of CBTEs. Table 27 displays the various professional training projects that were supported by the local government for CBTEs in Vietnam.

Table 27. Local authority stakeholders' support for CBTEs in Vietnam

General Training skills	Frequency (n=377)	Percentage
Communication	253	67.11
Cooking	227	60.21
Decoration	162	42.97
Business management	203	53.85
Study visits to other destinations	106	28.12
Training skills for social media marketing	Frequency (n=377)	Percentage
Graphic design and video production	144	38.20
Writing ability and content marketing	107	28.38
Social media management	180	47.75
Customer communication	160	42.44

Source: Quantitative study results (2025)

Particularly, communication training was the most widely attended with 253 (67.11%) of 377 respondents, followed by cooking skills and business management skills with 227 respondents (60.21%) and 203 respondents (53.85%) respectively. By contrast, other skills

were less popular, such as decoration skills with 162 respondents (42.97%), and study visits to other destinations with 106 respondents (28.12%). The results indicated the important function of local government in strengthening CBTE capacity through targeted training initiatives in essential operational and managerial skills.

Furthermore, the local authority also covered the number of social media training classes to support increasing digital marketing skills for CBTEs. Table 27 also displays the various social media marketing training projects that were supported by the local government. Particularly, social media management is the skill that was participated in by large numbers of CBTEs, with 180 (47.75%) of 377 respondents, followed by customer communication skills with 16 respondents (42.44%), and graphic designing and video production skills with 144 respondents (38.20%). By contrast, writing ability and content marketing skills were less popular with 107 respondents (28.38%). These findings imply that the local authority gave more policies to support improving social marketing skills for CBTEs to develop sustainable tourism in mountainous and remote regions in Vietnam.

4.3.5. Descriptive Statistics for Constructs

This research has 9 constructs, including 8 first-order constructs (local authorities stakeholders, social media marketing adoption, perceived usefulness, perceived ease of use, cost, compatibility, facilitating conditions, interaction) and 1 higher-order construct (sustainability performance) measured by 47 indicators. This study employed SPSS 26 to evaluate the variance, standard deviation, mean, and range of each of the indicators, as detailed in Table 28.

Table 28. Descriptive statistics for study instrument

Construct	Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Local authorities stakeholders (LA)	LA1	377	1	5	3.143	1.691
	LA2	377	1	5	3.403	1.619
	LA3	377	1	5	3.464	1.581
	LA4	377	1	5	3.637	1.546
	LA5	377	1	5	3.798	1.468
	LA6	377	1	5	3.955	1.427
Perceived usefulness (PEU)	PEU1	377	2	5	4.220	0.685
	PEU2	377	3	5	4.324	0.636
	PEU3	377	2	5	3.719	0.761
	PEU4	377	2	5	4.273	0.700
	PEU5	377	2	5	4.085	0.678
	PEU6	377	2	5	4.000	0.702
Perceived ease of use (EOU)	EOU1	377	2	5	4.398	0.583
	EOU2	377	2	5	4.265	0.646
	EOU3	377	2	5	4.271	0.672
	EOU4	377	2	5	4.289	0.625
	EOU5	377	2	5	4.387	0.613
Cost (COS)	COS1	377	2	5	4.151	0.740
	COS2	377	2	5	4.154	0.641
	COS3	377	3	5	4.252	0.590
	COS4	377	2	5	4.239	0.673
Compatibility (COM)	COM1	377	2	5	4.072	0.658
	COM2	377	2	5	4.345	0.621
	COM3	377	2	5	4.387	0.613
	COM4	377	3	5	4.573	0.579
Facilitating conditions (FCO)	FCO1	377	2	5	3.979	0.710
	FCO2	377	2	5	3.692	0.714
	FCO3	377	1	5	3.512	0.750
	FCO4	377	1	5	3.419	0.833
Interaction (INT)	INT1	377	2	5	4.292	0.639
	INT2	377	2	5	4.345	0.642
	INT3	377	2	5	4.265	0.646
Social media marketing adoption (SMA)	SMA1	377	2	5	4.151	0.606
	SMA2	377	1	5	3.936	0.672
	SMA3	377	2	5	4.125	0.674
	SMA4	377	2	5	4.119	0.609
Economic performance (EP)	EP1	377	2	5	3.950	0.472
	EP2	377	2	5	3.886	0.515
	EP3	377	2	5	3.891	0.506
	EP4	377	2	5	3.960	0.468
	EP5	377	2	5	3.995	0.489
Social performance (SP)	SP1	377	2	5	4.135	0.676
	SP2	377	3	5	4.393	0.609
	SP3	377	2	5	3.806	0.624
Environmental performance (ENP)	ENP1	377	2	5	4.135	0.725
	ENP2	377	1	5	3.894	0.840
	ENP3	377	1	5	3.950	0.808

Source: Quantitative study results (2025)

The descriptive statistics reveal that all indicators varied from 1 (strongly disagree) to 5 (strongly agree), indicating that respondents fully utilized the five-point Likert scale. According to study guidelines, mean scores of ≤ 2.99 represent low agreement, 3–3.99 indicate moderate agreement, and scores above 4 signify high agreement (Sekaran, 2016). As shown in Table 28, the mean values for every indicator vary from 3.143 to 4.573, indicating that most items reflect moderate to high levels of agreement. Additionally, the standard deviations range from 0.468 to 1.691, showing participant response consistency variance.

4.4. Inferential Statistics

This chapter discusses the data analysis using partial least squares structural equation modeling (PLS-SEM) to address the study's objectives. In PLS-SEM, higher-order constructs (HOCs) are multidimensional concepts that consist of various lower-order constructs (LOCs). Therefore, the analysis involves assessing both the measurement models of the LOCs and the connections between the LOCs and their corresponding HOC (Hair, 2022). To ensure the robustness of the analysis, the framework was assessed in two steps: first, the measurement model assessment, which evaluates construct reliability and validity; and second, the structural model assessment, which examines the hypothesized relationships between constructs. The detailed procedures and evaluation steps are summarized in Table 29.

Table 29. Assessments of sequential research models

Step	Assessment	Construct	Assessment
1	Measurement model assessment	Reflective	1. Indicator reliability
			2. Construct reliability
			3. Convergent validity
			4. Discriminant validity
2	Structural model assessment	Reflective	1. Path coefficient (β)
			2. Collinearity issues (inner VIF)
			3. Amount of variance explained (R^2)
			4. Effect size (f^2)
			5. Predictive relevance (Q^2)

Source: Own edition from Hair (2022)

4.4.1. Measurement Model Analysis

This study's research framework consisted of one hierarchical construct: sustainability performance (dependent construct). Particularly, sustainability performance (SUSP) is a higher-order reflective construct (HOC) assessed using three reflective-type lower-order-components (LOCs): economic performance (EP), social performance (SP), and environmental performance (ENP). In addition, all the remaining constructs are reflective-

type LOCs. In particulars, the independent constructs which are considered as first-order constructs: factors affecting social media marketing adoption measured by six variables (perceived usefulness (PEU), perceived ease of use (EOU), cost (COS), compatibility (COM), facilitating conditions (FCO), interaction (INT); social media marketing adoption (SMA); and local authorities stakeholders (LA) as a moderating construct. The comprehensive research framework is shown in Figure 11.

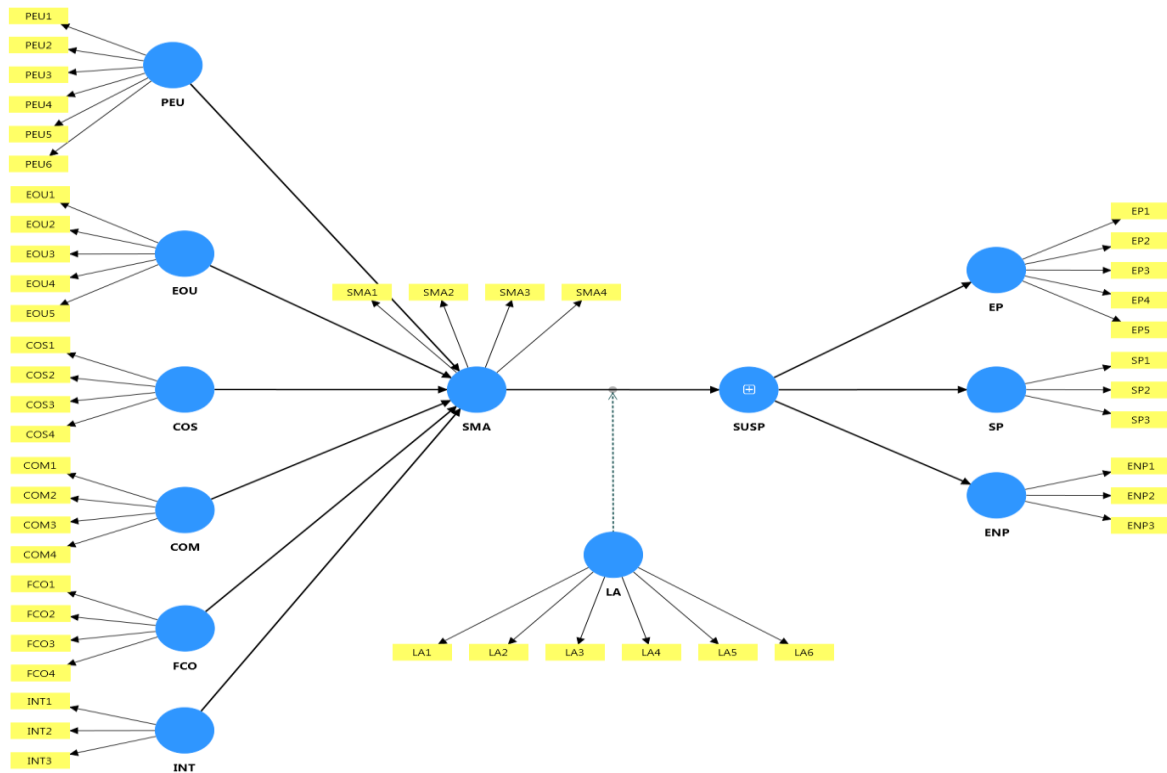


Figure 11. Comprehensive model

Source: Quantitative study results (2025)

In this research, the disjoint two-stage approach was evaluated using the measurement model (Hair, 2022). This approach involves two sequential phases: in the first stage, the reliability, convergent validity, and discriminant validity of the lower-order constructs (LOCs) are evaluated to ensure their measurement accuracy and internal consistency. In the second step, the higher-order constructs (HOCs) are tested for reliability and validity using the first stage's latent variable scores (Sarstedt et al, 2019). This systematic procedure validates lower- and higher-order constructs in the study framework consistently.

4.4.2. Measurement model of lower-order constructs

In this study framework, every lower-order construct (LOCs) is reflective-type. Thus, the researcher first assessed the quality of the LOCs by examining key measurement properties,

including indicator reliability (outer loadings), construct reliability (Cronbach's alpha and composite reliability), convergent validity (average variance extracted), and discriminant validity (Fornell-Larcker criteria, HTMT ratios, and cross-loadings). Table 30 displays the assessment results from running the PLS algorithm in SmartPLS 4, whereas Figure 12 shows the measurement model with lower-order constructs.

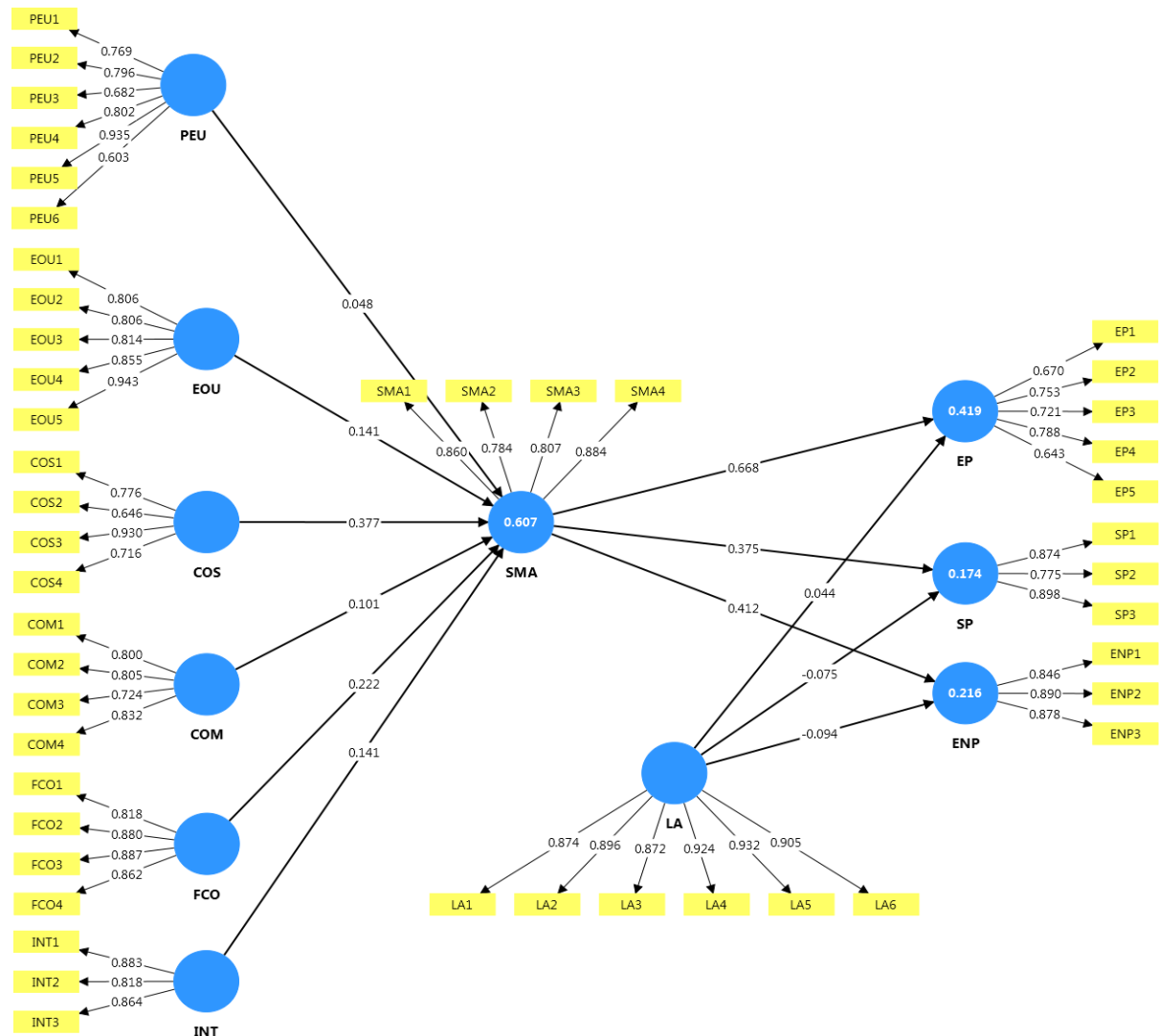


Figure 12. Visualization of lower-order construct measurement model

Source: Quantitative study results (2025)

Table 30. Measurement model for lower-order constructs

Constructs	Measurement Items	Outer loadings	Cronbach's Alpha	CR	AVE
Local authorities stakeholders (LA)	LA1	0.874	0.953	0.963	0.812
	LA2	0.896			
	LA3	0.872			
	LA4	0.924			
	LA5	0.932			
	LA6	0.905			
Perceived usefulness (PEU)	PEU1	0.769	0.859	0.897	0.595
	PEU2	0.796			
	PEU3	0.682			
	PEU4	0.802			
	PEU5	0.935			
	PEU6	0.603			
Perceived ease of use (EOU)	EOU1	0.806	0.903	0.926	0.717
	EOU2	0.806			
	EOU3	0.814			
	EOU4	0.855			
	EOU5	0.943			
Cost (COS)	COS1	0.776	0.768	0.854	0.599
	COS2	0.646			
	COS3	0.930			
	COS4	0.716			
Compatibility (COM)	COM1	0.800	0.801	0.870	0.627
	COM2	0.805			
	COM3	0.724			
	COM4	0.832			
Facilitating conditions (FCO)	FCO1	0.818	0.885	0.921	0.744
	FCO2	0.880			
	FCO3	0.887			
	FCO4	0.862			
Interaction (INT)	INT1	0.883	0.818	0.891	0.732
	INT2	0.818			
	INT3	0.864			
Social media marketing adoption (SMA)	SMA1	0.860	0.854	0.902	0.696
	SMA2	0.784			
	SMA3	0.807			
	SMA4	0.884			
Economic performance (EP)	EP1	0.670	0.763	0.840	0.514
	EP2	0.753			
	EP3	0.721			
	EP4	0.788			
	EP5	0.643			
Social performance (SP)	SP1	0.874	0.810	0.887	0.724
	SP2	0.775			
	SP3	0.898			
Environmental performance (ENP)	ENP1	0.846	0.842	0.905	0.760
	ENP2	0.890			
	ENP3	0.878			

Source: Quantitative study results (2025)

Note: AVE: Average variance extracted, CR: Composite reliability

4.4.2.1. Indicator reliability analysis

This study applied standard evaluation criteria to estimate the validity and reliability of key constructs. The first step involved evaluating indicator reliability and construct reliability (Hair et al, 2019). *Indicator reliability* assesses the suitability and capability of items developed for a specific construct in measuring the underlying concept (Hair et al, 2019), while *construct reliability* is assessed by Cronbach's alpha and composite reliability (CR) (Hair et al, 2011).

In this study, indicator reliability was specifically examined through outer loadings, which measure the correlation between an observed variable and its latent construct (Hair, 2022). According to the established thresholds, outer loadings should ideally be at least 0.70. However, values of 0.60 to 0.70 are accepted as appropriate for exploratory research (Hair and Alamer, 2022; Hair et al, 2019). In this research, the outer loadings ranged from 0.670 to 0.878 (Table 30), indicating that all items met the minimum acceptable threshold and demonstrating that the indicators reliably measure their respective constructs.

4.4.2.2. Construct reliability analysis

Construct reliability evaluates the internal consistency of scale items, suggesting that the items within a construct accurately measure the same underlying notion (Hair et al, 2019). The two most frequently employed approaches for assessing construct reliability are Cronbach's alpha and composite reliability (CR). The values span from 0 to 1, with higher values signifying greater levels of reliability (Hair et al, 2019). In exploratory studies, Cronbach's alpha or Composite Reliability (CR) values ranging from 0.60 to 0.70 are regarded as acceptable, whereas in more advanced levels, the values should exceed 0.70 (Hair and Alamer, 2022; Kline, 2011). The findings for both Cronbach's alpha and Composite Reliability (CR) are displayed in Table 30. The results indicate that Cronbach's alpha values varied from 0.763 to 0.953, while Composite Reliability (CR) statistics ranged from 0.840 to 0.963. Thus, both of the measures of construct reliability exceeded the minimum acceptable value of 0.70 (Hair et al, 2011). Consequently, the reliability of the construct is confirmed.

4.4.2.3. Convergent validity

The following step involves evaluating the validity of the measurement instruments through two widely recognized indicators: convergent validity and discriminant validity (Hair et al, 2019). Convergent validity evaluates the extent to which an indicator is correlated with other indicators of the same or similar constructs (Hair, 2022). The average variance extracted

(AVE) was utilized to assess the convergent validity of the construct, which should exceed 0.5 (Fornell and Larcker, 1981). The results in this study ranged from 0.515 to 0.750 (Table 30). Consequently, the convergent validity of the lower-order constructs was adequately demonstrated.

4.4.2.4. Discriminant validity

Discriminant validity is the extent to which a test is not correlated with other tests that evaluate distinct constructs (Hair, 2022). It's a crucial aspect of construct validity, ensuring that a test measures the intended construct. Discriminant validity is verified through frequently employed measurements, including the Fornell–Larcker criterion, the Heterotrait–Monotrait ratio of correlations (HTMT), and cross-loadings. This study verified discriminant validity with three different commonly used evaluations of discriminant validity.

Firstly, according to Fornell–Larcker criterion, the diagonal values (square roots of the AVE) are higher than the other values in the same row and column (Fornell and Larcker, 1981). The Fornell–Larcker criterion results in Table 31 indicated AVE (on the diagonal) exceeds the correlation with all other constructs (Fornell and Larcker, 1981). It has been demonstrated that no value of the square root of AVE appears to be less than any other correlation of the latent variable. Consequently, the Fornell-Larcker criterion confirmed discriminant validity of the model's lower-order constructs.

Table 31. Discriminant validity (Fornell–Larcker criterion)

	COM	COS	ENP	EOU	EP	FCO	INT	LA	PEU	SMA	SP
COM	0.792										
COS	0.438	0.774									
ENP	0.366	0.414	0.872								
EOU	0.518	0.479	0.333	0.847							
EP	0.354	0.500	0.290	0.364	0.717						
FCO	0.415	0.440	0.485	0.378	0.383	0.862					
INT	0.504	0.402	0.412	0.468	0.348	0.511	0.856				
LA	-0.106	-0.232	-0.293	-0.137	-0.279	-0.279	-0.159	0.901			
PEU	0.383	0.448	0.440	0.420	0.304	0.422	0.426	-0.140	0.772		
SMA	0.521	0.665	0.458	0.544	0.647	0.576	0.543	-0.483	0.469	0.835	
SP	0.385	0.409	0.485	0.332	0.333	0.427	0.350	-0.257	0.365	0.412	0.851

Source: Quantitative study results (2025)

Secondly, the researcher estimated the Heterotrait-Monotrait (HTMT) ratios for this study, as presented in Table 32. The literature indicates that the HTMT value is below the established threshold of 0.85 (Hair and Alamer, 2022). All the values presented in this study are within

the established recommended thresholds. Therefore, HTMT ratios confirmed the discriminant validity of the lower-order constructs within the model.

Table 32. Discriminant validity (HTMT ratio)

	COM	COS	ENP	EOU	EP	FCO	INT	LA	PEU	SMA	SP
COM											
COS	0.561										
ENP	0.449	0.514									
EOU	0.599	0.549	0.366								
EP	0.450	0.650	0.360	0.400							
FCO	0.487	0.536	0.560	0.409	0.462						
INT	0.610	0.497	0.497	0.528	0.428	0.595					
LA	0.121	0.270	0.324	0.129	0.320	0.302	0.177				
PEU	0.454	0.540	0.512	0.464	0.365	0.482	0.493	0.153			
SMA	0.625	0.818	0.539	0.582	0.791	0.657	0.638	0.538	0.536		
SP	0.468	0.518	0.580	0.375	0.421	0.500	0.418	0.287	0.420	0.484	

Source: Quantitative study results (2025)

Thirdly, this study employed cross-loading analysis to assess discriminant validity. In this method, each item's loading on its intended construct should be higher than its loadings on all other constructs, confirming that the item represents its assigned construct more strongly than others (Henseler et al, 2015). The findings (Table 33) indicated that the cross-loadings of the constructs were higher than their loadings with other constructs. Therefore, cross-loading established discriminant validity of lower-order constructs in the research model.

Consequently, the three evaluations demonstrated that discriminant validity is established. Therefore, discriminant validity for the lower-order constructs was successfully confirmed. As all lower-order constructs met the required reliability and validity criteria, the next step involved evaluating the reliability and validity of the higher-order constructs.

Table 33. Discriminant validity (Cross loading)

	COM	COS	ENP	EOU	EP	FCO	INT	LA	PEU	SMA	SP
COM1	0.800	0.338	0.340	0.385	0.236	0.262	0.353	-0.063	0.326	0.375	0.279
COM2	0.805	0.360	0.270	0.438	0.315	0.394	0.472	-0.120	0.323	0.447	0.290
COM3	0.724	0.315	0.238	0.409	0.251	0.284	0.351	-0.066	0.267	0.384	0.308
COM4	0.832	0.371	0.312	0.405	0.309	0.359	0.406	-0.080	0.296	0.436	0.341
COS1	0.378	0.776	0.332	0.357	0.363	0.384	0.298	-0.164	0.334	0.501	0.303
COS2	0.291	0.646	0.244	0.359	0.340	0.302	0.280	-0.203	0.326	0.489	0.303
COS3	0.372	0.930	0.394	0.423	0.458	0.369	0.394	-0.208	0.429	0.614	0.344
COS4	0.312	0.716	0.297	0.337	0.378	0.302	0.252	-0.135	0.277	0.433	0.317
ENP1	0.371	0.371	0.846	0.335	0.223	0.372	0.367	-0.212	0.343	0.394	0.381
ENP2	0.272	0.352	0.890	0.298	0.242	0.447	0.343	-0.329	0.444	0.413	0.444
ENP3	0.318	0.361	0.878	0.236	0.294	0.447	0.369	-0.219	0.358	0.389	0.443
EOU1	0.457	0.521	0.355	0.806	0.496	0.387	0.414	-0.247	0.353	0.629	0.296
EOU2	0.394	0.295	0.236	0.806	0.196	0.282	0.336	-0.061	0.280	0.345	0.204
EOU3	0.420	0.354	0.295	0.814	0.205	0.275	0.384	-0.081	0.363	0.377	0.303
EOU4	0.404	0.350	0.197	0.855	0.254	0.288	0.377	-0.036	0.347	0.384	0.256
EOU5	0.487	0.414	0.271	0.943	0.260	0.317	0.436	-0.068	0.414	0.443	0.318
EP1	0.240	0.308	0.114	0.239	0.670	0.176	0.197	-0.126	0.190	0.404	0.217
EP2	0.260	0.412	0.228	0.295	0.753	0.328	0.329	-0.255	0.254	0.549	0.211
EP3	0.262	0.372	0.228	0.259	0.721	0.270	0.245	-0.186	0.199	0.441	0.259
EP4	0.263	0.373	0.223	0.257	0.788	0.277	0.253	-0.228	0.226	0.489	0.202
EP5	0.244	0.313	0.237	0.252	0.643	0.311	0.201	-0.184	0.214	0.414	0.324
FCO1	0.411	0.408	0.418	0.417	0.287	0.818	0.494	-0.194	0.327	0.501	0.375
FCO2	0.344	0.363	0.382	0.328	0.304	0.880	0.438	-0.208	0.382	0.458	0.347
FCO3	0.367	0.363	0.448	0.283	0.350	0.887	0.441	-0.270	0.382	0.520	0.426
FCO4	0.306	0.381	0.419	0.277	0.377	0.862	0.387	-0.286	0.367	0.501	0.321
INT1	0.377	0.322	0.377	0.333	0.266	0.399	0.883	-0.095	0.357	0.396	0.305
INT2	0.425	0.302	0.313	0.433	0.286	0.429	0.818	-0.168	0.302	0.450	0.265
INT3	0.475	0.395	0.366	0.420	0.330	0.471	0.864	-0.139	0.422	0.528	0.323
LA1	-0.153	-0.240	-0.275	-0.163	-0.226	-0.283	-0.171	0.874	-0.136	-0.477	-0.241
LA2	-0.158	-0.238	-0.270	-0.183	-0.250	-0.314	-0.179	0.896	-0.155	-0.461	-0.250
LA3	-0.086	-0.212	-0.257	-0.101	-0.255	-0.253	-0.168	0.872	-0.158	-0.425	-0.240
LA4	-0.071	-0.201	-0.225	-0.115	-0.237	-0.233	-0.128	0.924	-0.094	-0.436	-0.225
LA5	-0.072	-0.207	-0.277	-0.113	-0.274	-0.216	-0.121	0.932	-0.112	-0.431	-0.242
LA6	-0.028	-0.154	-0.279	-0.060	-0.261	-0.206	-0.090	0.905	-0.098	-0.379	-0.186
PEU1	0.257	0.323	0.327	0.315	0.177	0.317	0.303	-0.136	0.769	0.315	0.291
PEU2	0.228	0.348	0.329	0.259	0.207	0.334	0.261	-0.074	0.796	0.328	0.231
PEU3	0.261	0.250	0.296	0.268	0.176	0.285	0.240	-0.089	0.682	0.273	0.199
PEU4	0.246	0.312	0.309	0.314	0.228	0.273	0.366	-0.088	0.802	0.361	0.235
PEU5	0.378	0.421	0.414	0.404	0.294	0.405	0.413	-0.116	0.935	0.447	0.363
PEU6	0.357	0.373	0.334	0.343	0.283	0.314	0.338	-0.138	0.603	0.394	0.327
SMA1	0.396	0.552	0.394	0.408	0.484	0.406	0.425	-0.475	0.358	0.860	0.323
SMA2	0.409	0.531	0.366	0.443	0.587	0.535	0.424	-0.384	0.374	0.784	0.337
SMA3	0.483	0.567	0.391	0.493	0.562	0.506	0.512	-0.305	0.451	0.807	0.368
SMA4	0.443	0.564	0.374	0.464	0.514	0.463	0.444	-0.455	0.373	0.884	0.341
SP1	0.377	0.380	0.456	0.298	0.342	0.389	0.350	-0.244	0.364	0.413	0.874
SP2	0.236	0.291	0.342	0.218	0.217	0.327	0.222	-0.173	0.241	0.286	0.775
SP3	0.349	0.362	0.426	0.321	0.272	0.368	0.302	-0.228	0.310	0.334	0.898

Source: Quantitative study results (2025)

4.4.3. Measurement model of higher-order constructs

This research includes one reflective higher-order construct, sustainability performance (SUSP), which is evaluated by three reflective lower-order components (LOCs): economic performance (EP), social performance (SP), and environmental performance (ENP). As the next part of the disjoint two-stage technique, these lower-order constructs serve as indicators for the higher-order construct (Sarstedt et al, 2019). Accordingly, the latent variable scores of EP, SP, and ENP obtained from the first stage were used to construct and estimate the higher-order construct of sustainability performance in the second stage of the model. Figure 13 illustrates the hierarchical relationship between the lower-order and higher-order constructs.

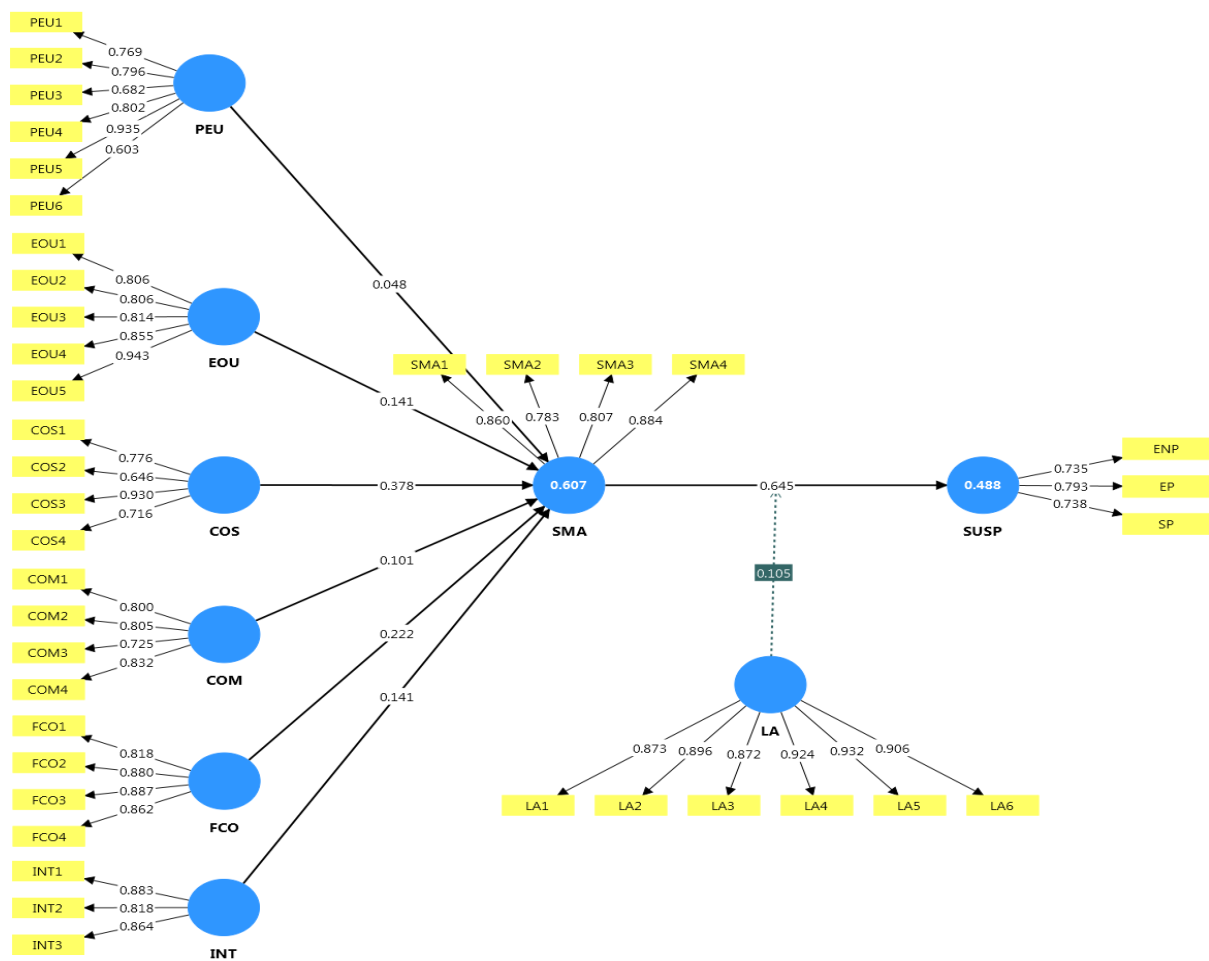


Figure 13. The measurement model results of higher-order constructs

Source: Quantitative study results (2025)

Reflective higher-order constructs treat relationships between second-order and first-order constructs as loadings and assess quality using several criteria: factor loadings (>0.7), internal consistency (composite reliability >0.7 , Cronbach's alpha >0.7), convergent validity (AVE >0.5), and discriminant validity (cross-loadings, Fornell-Larcker criterion, and HTMT ratios) (Sarstedt et al, 2019). Following these guidelines, this research evaluated the higher-order

reflective construct's measurement qualities for reliability and validity. The findings of this assessment are presented in Table 34.

Table 34. Measurement model of higher-order constructs

Constructs	Measurement Items	Loadings	Cronbach's Alpha	CR	AVE
Sustainability performance (SUSP)	Economic performance (EP)	0.793	0.637	0.800	0.571
	Social performance (SP)	0.738			
	Environmental performance (ENP)	0.735			

Source: Quantitative study results (2025)

4.4.3.1. Indicator reliability

Evaluation begins with the higher-order constructs to assess their reliability, as shown in Table 34. This was measured using two key indicators: indicator reliability and construct reliability (Hair et al, 2019). Indicator reliability was examined using outer loadings, which describe the correlation between an observable variable and its associated latent factor (Hair, 2022). According to research standards, outer loading values between 0.60 and 0.70 are acceptable in exploratory studies (Hair and Alamer, 2022; Hair et al, 2019). The study's findings indicated outer loadings varying from 0.735 to 0.793, indicating that all sustainability performance indicators met the acceptable reliability threshold.

4.4.3.2. Construct reliability

Construct reliability was evaluated utilizing two key indicators: Cronbach's alpha and composite reliability (CR). Values between 0.60 and 0.70 are appropriate in exploratory research; however, values greater than 0.70 are desirable in more advanced study phases (Hair and Alamer, 2022; Kline, 2011). The findings revealed that the Cronbach's alpha for the sustainability performance construct was 0.637, and the composite reliability (CR) was 0.800 (Table 34). These results fall within the acceptable thresholds, indicating satisfactory internal consistency; therefore, construct reliability for the sustainability performance construct was established.

4.4.3.3. Convergent validity

The next part entailed assessing the validity of the measurement instruments using two key indicators: convergent validity and discriminant validity (Hair et al, 2019). Convergent validity evaluates the extent to which a construct correlates with other measures of the same or similar concepts (Hair, 2022). To determine convergent validity, the average variance extracted (AVE) was established, with a recommended threshold value greater than 0.5 (Fornell and Larcker, 1981). Table 34 shows that the higher-order construct's AVE exceeded

the minimum criterion at 0.571. Consequently, the convergent validity of the higher-order construct was confirmed.

4.4.3.4. Discriminant validity

Discriminant validity is the degree to which a construct differs from other constructs that measure various concepts (Hair, 2022). It ensures that every construct in the model captures a unique aspect of the data and does not overlap excessively with others. Three common methods were used to test discriminant validity in this research: the Fornell–Larcker criterion, the Heterotrait–Monotrait (HTMT) ratio of correlations, and cross-loadings.

Table 35 presents the results for the Fornell–Larcker criterion and HTMT ratios of the sustainability performance construct. The analysis revealed that the square root of the average variance extracted (AVE) for sustainability performance exceeded its correlations with other constructs, satisfying the Fornell–Larcker criterion. Moreover, all HTMT values were below the accepted threshold of 0.85 (Hair and Alamer, 2022), confirming adequate discriminant validity. Therefore, both the Fornell–Larcker criterion and HTMT results demonstrate that the higher-order construct of sustainability performance possesses satisfactory discriminant validity within the model.

Table 35. Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratios of higher-order reflective constructs

Constructs		Fornell–Larcker criterion	Heterotrait-Monotrait (HTMT) ratios
Sustainability performance (SUSP)		0.756	0.215

Source: Quantitative study results (2025)

Table 36 shows that the cross-loadings of each construct were higher on their respective constructs than on any other constructs (Henseler et al, 2015). This indicates that no cross-loading concerns existed in the higher-order reflective constructs. Consequently, this study confirmed and established the discriminant validity of the higher-order reflective construct, sustainability performance.

Table 36. Discriminant validity of higher-order reflective constructs (Cross loading)

	COM	COS	EOU	FCO	INT	LA	PEU	SMA	SUSP	LA x SMA
ENP	0.367	0.414	0.333	0.485	0.412	-0.292	0.439	0.458	0.735	0.181
EP	0.354	0.500	0.364	0.383	0.348	-0.279	0.304	0.646	0.793	0.141
SP	0.385	0.409	0.332	0.427	0.350	-0.257	0.365	0.412	0.738	0.070

Source: Quantitative study results (2025)

4.4.4. Assessment of Structural Model (PLS-SEM)

Following measurement model reliability and validity evaluation, the next step in structural equation modeling was to assess the hypothesized relationships and substantiate the proposed hypotheses. The structural model displays the relationships among the constructs in the proposed research framework. Following established guidelines (Hair, 2022; Sarstedt et al, 2019), this study evaluated hypotheses H1 to H8 using PLS-SEM with 5000 bootstrapping resamples and the PLSpredict technique. The structural model assessment included examining path coefficients, significance levels, predictive relevance (Q^2), and the coefficient of determination (R^2) as a supplementary evaluation of model fit.

4.4.4.1. Assessing size and significance of the path coefficients (β)

To test the stated hypotheses, this study used a nonparametric bootstrapping procedure using a bias-corrected confidence method and 5000 subsamples. This approach generated standardized path coefficients (β), t-values, and p-values, which were used to determine the significance and direction of the relationships between constructs (Hair, 2022; Sarstedt et al, 2019). Positive path coefficients show positive relationships, while negative coefficients indicate negative associations. Hypothesis significance was evaluated using a t-value threshold of 1.96 and a p-value threshold of 0.05 or less. The structural model for this research is shown in Figure 14, with hypothesis testing results detailed in Table 37.

Table 37. Research hypothesis results

Hypothesis	Relationship	Original sample (O)	Standard deviation	t - statistics	p values	Decision
H1	Perceived usefulness (PEU) -> Social media marketing adoption (SMA)	0.048	0.040	1.193	0.233	Not supported
H2	Perceived ease of use (EOU) -> Social media marketing adoption (SMA)	0.141	0.042	3.357	0.001	Supported
H3	Cost (COS) -> Social media marketing adoption (SMA)	0.378	0.043	8.782	0.000	Supported
H4	Compatibility (COM) -> Social media marketing adoption (SMA)	0.101	0.046	2.183	0.029	Supported
H5	Facilitating conditions (FCO) -> Social media marketing adoption (SMA)	0.222	0.041	5.475	0.000	Supported
H6	Interactivity (INT) -> Social media marketing adoption (SMA)	0.141	0.044	3.214	0.001	Supported
H7	Social media marketing adoption (SMA) -> Sustainability performance (SUSP)	0.645	0.036	17.795	0.000	Supported
H8	The moderating role of Local authority stakeholders (LA)	0.105	0.042	2.475	0.013	Supported

Source: Quantitative study results (2025)

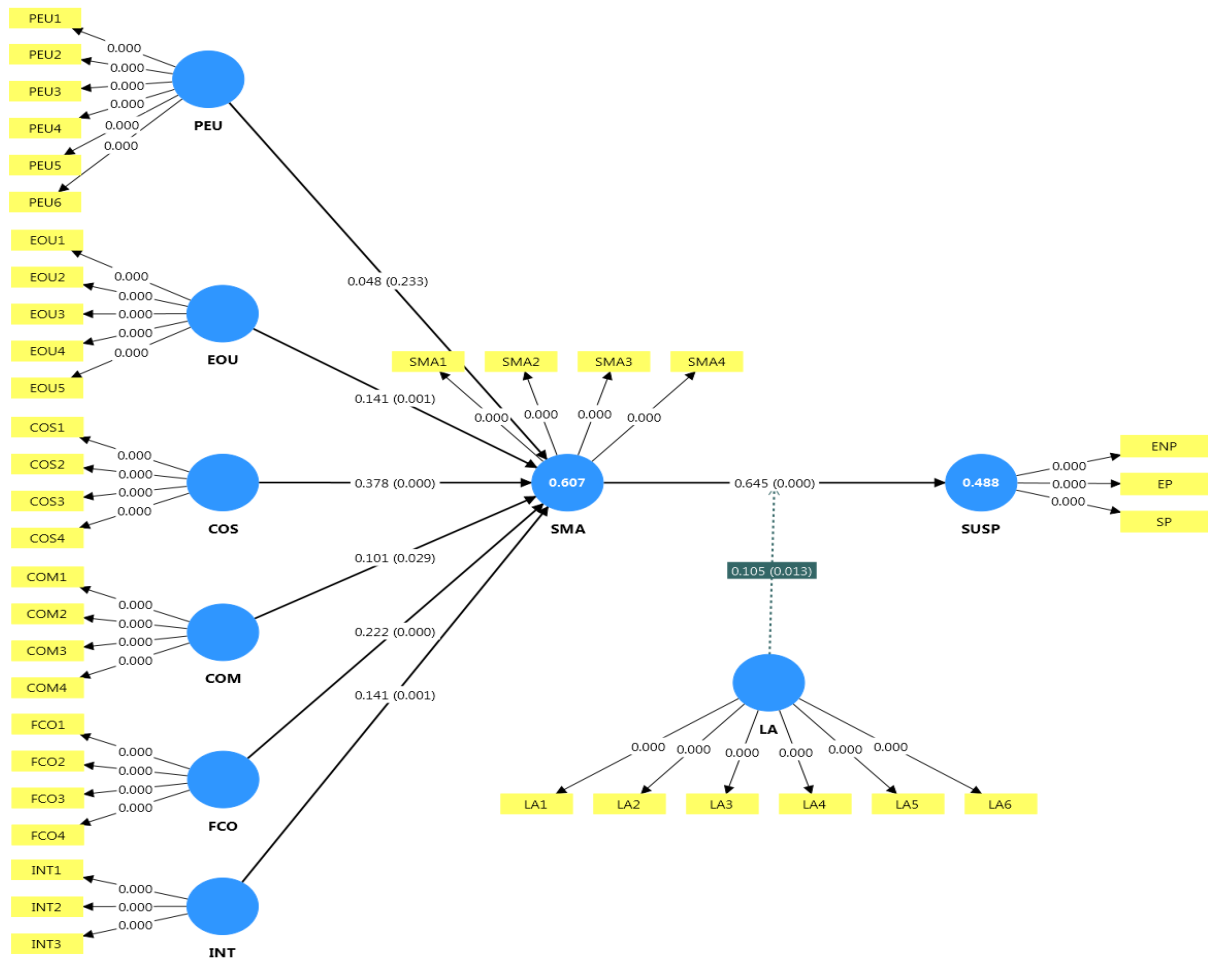


Figure 14. Structured equation modeling

Source: Quantitative study results (2025)

According to the findings in Table 37 and Figure 14, all the proposed hypotheses were accepted except H1, with the point of t-value higher than 1.96 and p-value lower than 0.05 in the present study. This examined that perceived usefulness (PEU) was insignificant in the relationship on social media marketing adoption (SMA) ($p > 0.05$); therefore, H1 was not accepted. In addition, perceived ease of use (EOU) was found to have positive and significant impacts on social media marketing adoption (SMA) ($\beta = 0.141$; $t = 3.357$); thus, H2 was accepted. Further, a positive and meaningful relationship was found between cost (COS) and social media marketing adoption (SMA) ($\beta = 0.378$, $t = 8.782$), which supported H3. Furthermore, the finding revealed a positive link between compatibility (COM) and social media marketing adoption (SMA) ($\beta = 0.101$, $t = 2.183$); thus, H4 was accepted. Moreover, this examined that facilitating conditions (FCO) positively and significantly related to social media marketing adoption (SMA) ($\beta = 0.222$, $t = 5.475$), which supported H5. Similarly, this examined that interactivity (INT) positively and significantly affects the relationship on social media marketing adoption (SMA) ($\beta = 0.141$, $t = 3.214$); therefore, H6 was accepted. Further,

a positive and meaningful relationship was found between social media marketing adoption (SMA) and sustainability performance (SUSP) ($\beta = 0.645$, $t = 17.795$), which supported H7. Finally, local authority stakeholders (LA) positively and significantly moderate the connection between social media adoption (SMA) and the economic performance (SUSP) ($\beta = 0.105$, $t = 2.475$), supporting H8.

4.4.4.2. Assessing explanatory power of the model

The coefficient of determination (R^2) measures a research model's explanatory power, indicating the extent to which variance in the dependent variable can be explained by the independent variables (Hair, 2022). R^2 levels also reflect the capacity of the model to predict and explain outcomes for the dependent construct. The R^2 values for the dependent construct in this study's research model are provided in Table 38.

Table 38. Coefficient of determination (R^2)

Constructs	R-square	R-square adjusted
Social media marketing adoption (SMA)	0.607	0.601
Sustainability performance (SUSP)	0.488	0.484

Source: Quantitative study results (2025)

The R^2 results for the two dependent constructs in this study, including social media marketing adoption (SMA) and sustainability performance, indicate substantial explanatory power. The R^2 values are classified as weak, moderate, and large, corresponding to values of 0.19, 0.33, and 0.60, respectively (Cohen, 1992). This indicates that our model explains 60.7% of the variance in factors influencing overall social media marketing adoption, and 48.8% of the variance in social media marketing adoption related to sustainability performance. Additionally, the regression model's adjusted R^2 value of 0.484 supports the presented research hypotheses about sustainability performance.

4.4.4.3. Effect size (f^2)

Effect size (f^2) estimates the effect of an independent variable on the dependent variable (Cohen, 1988). For additional analysis, we estimated the effect size using f^2 according to the following criteria: Values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively (Cohen, 1988). This research determined the effect size for evaluating structural models. Table 39 presents the findings related to the effect size.

Table 39. Effect size (f^2)

	SMA	Effect size		SUSP	Effect size
PEU	0.004	Small	SMA	0.592	Large
EOU	0.031	Small			
COS	0.232	Medium			
COM	0.016	Medium			
FCO	0.080	Small			
INT	0.030	Small			

Source: Quantitative study results (2025)

The findings explain that antecedents of social media marketing adoption were indicated to be small and medium (PEU: $f^2 = 0.004$; EOU: $f^2 = 0.031$; COS: $f^2 = 0.232$; COM: $f^2 = 0.016$; FCO: $f^2 = 0.080$; INT: $f^2 = 0.030$). In addition, the effect size of social media marketing adoption on sustainability performance was large (SMA: $f^2 = 0.592$). However, achieving the recommended thresholds for a high effect size can be challenging because of the complexity of the specific scope and the proposed model of the study (Hair, 2022).

4.4.4.4. Assessment of predictive relevance (Q^2)

This research applied the PLSpredict technique to calculate Q^2 , which shows the model's predictive relevance, specifically, the ability of the independent constructs to predict the dependent constructs in various contexts. The Q^2 score of more than 0 is required to confirm the predictive capability of the independent constructs (Chin, 1998), with thresholds for weak, medium, and large predictive relevance set at 0.02, 0.15, and 0.35, respectively. The findings in Table 40 show that social media marketing adoption (0.590) and sustainability performance (0.490) both exceed 0, indicating strong predictive relevance and confirming the validity of the current research model.

Table 40. Predictive relevance of the model

Constructs	Q^2predict	RMSE	MAE
Social media marketing adoption (SMA)	0.590	0.647	0.508
Sustainability performance (SUSP)	0.490	0.721	0.554

Source: Quantitative study results (2025)

4.4.4.5. Model fitness

Previous research showed that no internationally widely accepted measure of goodness is employed with SmartPLS (Borah et al, 2022). Nevertheless, researchers argue that a small number of studies have made misleading statements that PLS-SEM using SmartPLS is insufficient for validation and theory testing (Hair et al, 2019). The model fit assessment for

PLS-SEM has been recommended by numerous researchers (Henseler, 2017; Henseler et al, 2015). In this context, numerous studies recommend the use of the standardized root mean square residual (SRMR) to assess the goodness of fit (Hair et al, 2019). Table 41 presents the model fitness of the research model. In the findings of this research, the value of SRMR is 0.063, which is less than the recommended threshold of 0.08 (Hair et al, 2019).

Table 41. Model fitness

	Saturated model	Estimated model
SRMR	0.063	0.079
d_ULS	3.080	4.810
d_G	1.104	1.194
Chi-square	2284.632	2417.861
NFI	0.791	0.779

Source: Quantitative study results (2025)

4.4.4.6. Indicator Multicollinearity

Variance Inflation Factor (VIF) statistics were employed to identify multicollinearity among the indicators (Fornell and Bookstein, 1982), ensuring that high correlations between constructs do not create methodological issues in structural equation modeling. Collinearity can be detected through VIF values, with values below 3 indicating that multicollinearity is not a serious concern (Hair and Alamer, 2022). As indicated in Table 42, all VIF values for the indicators in this research are below the recommended threshold, suggesting that lateral collinearity is not an issue in this research model.

Table 42. Multicollinearity Statistice (VIF) for indicators

Relationship	VIF
Perceived usefulness (PEU) -> Social media marketing adoption (SMA)	1.468
Perceived ease of use (EOU) -> Social media marketing adoption (SMA)	1.647
Cost (COS) ->Social media marketing adoption (SMA)	1.567
Compatibility (COM) -> Social media marketing adoption (SMA)	1.639
Facilitating conditions (FCO) -> Social media marketing adoption (SMA)	1.557
Interactivity (INT) -> Social media marketing adoption (SMA)	1.694
The moderating role of Local authority stakeholders (LA)	1.076
Social media marketing adoption (SMA) -> Sustainability performance (SUSP)	1.375

Source: Quantitative study results (2025)

4.4.5. Moderator Analysis

This section of the research focuses on identifying and analyzing the results related to the moderating effects of local authority stakeholders' influence or alteration of the connections

between the main variables (social media adoption and sustainability performance). Table 37 indicates a significant moderating effect of local authority stakeholders. The finding showed that local authority stakeholders (LA) positively and significantly moderate the association between social media adoption (SMA) and sustainability performance (SUSP) ($\beta = 0.105$, $t = 2.475$), supporting H8. This outcome indicates that local authority stakeholders positively moderate the relationship between social media marketing adoption and sustainability performance. It also recommends that the influence of social media marketing adoption will be enhanced when CBTEs emphasize collaboration and support from local authorities.

Figure 15 shows the interaction effects between local authority stakeholders and social media marketing adoption. The figure illustrates that all three lines rise upward, indicating that higher levels of social media marketing adoption (SMA) lead to better sustainability performance (SUSP). This confirms that social media marketing positively contributes to sustainability outcomes. However, the slopes differ across levels of local authority (LA) support. The red line, representing low LA support, is steeper than the blue (average support) and green (high support) lines. This suggests that the positive impact of social media marketing on sustainability performance is stronger when local government support is low and slightly weaker when support is high. While social media marketing consistently enhances sustainability performance, greater involvement from local authorities may reduce this positive influence slightly. This means that strong control and intervention from local government may weaken sustainability performance of CBTEs.

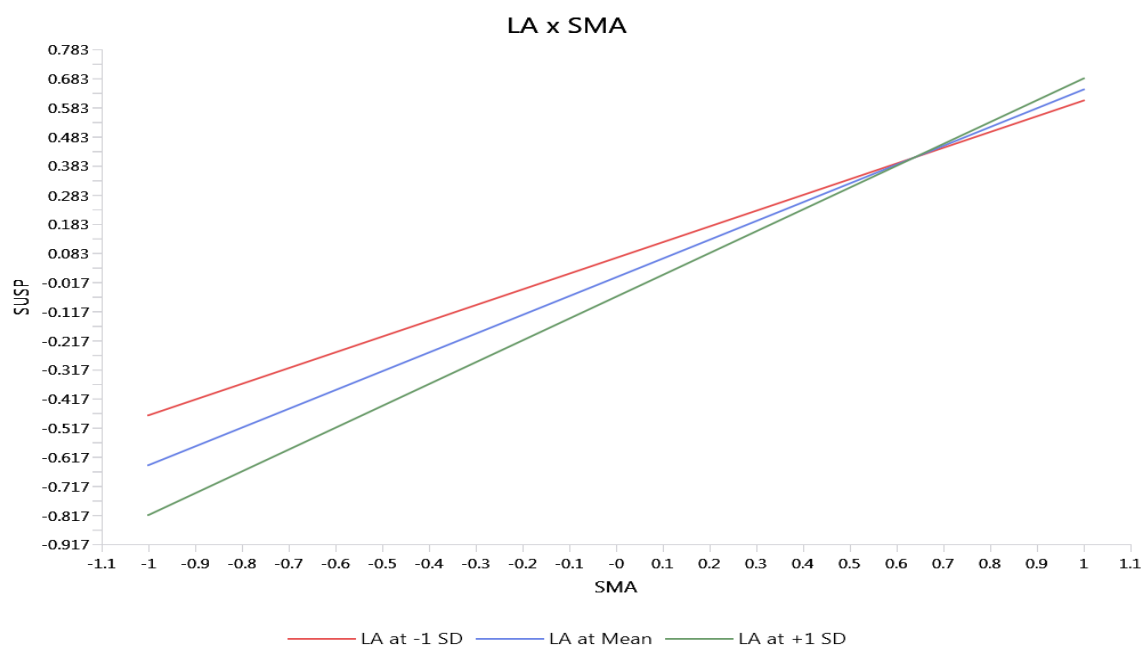


Figure 15. Moderating role of local authority stakeholders

Source: Quantitative study results (2025)

4.5. Discussion of results

This section shows a detailed discussion of the outcomes. It interprets in relation to the research questions and objectives (Section 4.5.1) and examines the perspective of the tested hypotheses (Section 4.5.2), providing insights into the theoretical and practical implications.

4.5.1. Discussion of Results in Research Question and Objective

The researcher initially analyzes the findings in the context of the research questions and objectives. Research question and research objective 1 explores the factors/antecedents of social media marketing adoption. Research question and research objective 2 examine the impact of social media marketing adoption on the sustainability performance of CBTEs. Furthermore, research question 3 examines two research objectives: research objective 3 explores stakeholders' collaboration to strengthen the relationship between social media marketing adoption and CBTE sustainability performance, while research objective 4 examines stakeholder collaboration's moderating role.

Research Question and Objective 1: To explore the factors/antecedents of social media marketing adoption

According to the findings derived from the literature, the research indicated that some prominent conditions could encourage CBTEs to adopt social media applications. These elements are perceived ease of use, perceived usefulness, compatibility, facilitating conditions, interactivity, and cost. Each of these factors will be examined individually to formulate the hypotheses and establish a conceptual model. Each factor that was examined and verified from qualitative and quantitative methods is explained below.

Perceived usefulness (PEU): According to the TAM theory, perceived usefulness (PEU) is seen as an intangible measurement reflecting a user's view (as CBTE owners) that the adoption of a new technology, including social media marketing, would improve their overall performance (Davis, 1989). Therefore, when CBTE owners believe that adopting social media can lead to tangible benefits, such as increased visibility among tourists and income, they are more likely to adopt and continue using these tools.

Perceived ease of use (EOU): This factor is also obvious in the TAM model, referring to how easy CBTE owners believe it is to learn and operate these technologies without requiring much effort or technical expertise. If social media marketing is seen as user-friendly, requiring minimal technical knowledge or training, owners are more inclined to use it. Therefore, when

CBTE owners perceive these technologies as both useful for promoting their tourism products and easy to use, they are more willing to integrate them into their business practices.

Cost (COS): Cost is a critical element influencing social media marketing adoption regarding the UTAUT2 model (Venkatesh et al, 2012). A CBTE is a micro-enterprise situated in a rural or remote region of a less-developed area (Ngo et al, 2020); hence, cost is a critical factor that influences the decision to adopt social media marketing. Therefore, through social media marketing, CBTEs can effectively engage with their valued tourists at a relatively lower cost (El-Gohary, 2012; Rambe, 2017).

Compatibility (COM): Based on IDT theory (Rogers, 1983), compatibility (COM) can be described that social marketing fits with the existing values, culture, infrastructure, and operational practices is more likely to be adopted (Tajudeen et al, 2018). Practically, CBTE owners will feel comfortable adopting new technology if they feel it matches their existing experience and practices (Chatterjee and Kar, 2020; Hsu et al, 2007). As a result, compatibility should be regarded as an element that could encourage CBTEs to embrace social media marketing for the enhancement of their economic viability (Chatterjee et al, 2024; Chatterjee and Kar, 2020; El-Gohary, 2012).

Facilitating conditions (FCO): Regarding the UTAUT2 model (Venkatesh et al, 2012), facilitating conditions refer to CBTEs owners' perception that adequate organizational, technical, and environmental support exists to promote the effective use of social media and digital technologies. If CBTE owners have appropriate training for handling social media marketing and the present circumstance is conducive and motivates them to accept, they will adopt it (Chatterjee et al, 2024; El-Gohary, 2012).

Interactivity (INT): Based on Interactivity theory (Rafaeli, 1988), social media and digital platforms enable two-way communication and active engagement between CBTE owners and their customers (Kiráľová and Pavlíčka, 2015; Tajudeen et al, 2018). As a result, interactivity contributes to greater perceived usefulness of social media marketing and increases the likelihood of technology adoption.

Research Question and Objective 2: To examine the impact of social media marketing adoption on the sustainability performance of CBTEs.

The empirical results indicate that social media marketing adoption positively and significantly enhances the sustainability performance of CBTEs across economic, social, and environmental dimensions. This finding is consistent with prior studies on tourism SMEs,

which demonstrate that social media marketing improves sustainability outcomes by increasing market visibility, stakeholder engagement, and operational efficiency (Deb et al, 2024; Oyewobi et al, 2021; Sharma and Sharma, 2024). Although research on social media marketing adoption in CBTEs remains limited (Mkono, 2016; Ngo et al, 2020), the present study confirms its critical role in strengthening multidimensional sustainability performance within the CBT context.

Research Question and Objective 3,4: To find out who the stakeholders are for strengthening the relationship between social media marketing adoption and sustainability performance of CBTEs

Considering the findings generated through the literature, the research indicated that the role of local government became increasingly central to sustainable tourism development. Local government involvement in tourism takes many forms, including environmental planning, policy regulation, financing, and infrastructure development (Connell et al, 2009; Ferede, 2019; Suansri, 2003). Their influence extends across several key policy areas, such as infrastructure, transport, and spatial planning, that directly affect tourism development (Connell et al, 2009; Ngo et al, 2018). Moreover, governments provide the political stability, legal structures, and financial frameworks necessary for tourism to thrive (John Massyn, 2007; Luan et al, 2023). Additionally, governments hold direct responsibility for achieving the goal of sustainable development in tourist destinations (Ngo et al, 2018). This is attributable to their capacity to incorporate instruments in other policy domains that may facilitate sustainable tourism (John Massyn, 2007). However, there are a limited studies conducted on the role of local government in CBTEs (Ngo et al, 2020). This study found that local government, as a stakeholder collaboration among CBTEs, acts as a moderator, supporting CBTEs in strengthening their long-term business by adopting social media marketing.

4.5.2. Results Discussion from Hypothesis Viewpoint

The empirical results are analyzed in regard to the hypothesized relationships between model constructs and research objectives. Accordingly, six hypotheses were tested to validate the antecedents of social media marketing adoption, Perceived usefulness (PEU), Perceived ease of use (EOU), Cost (COS), Compatibility (COM), Facilitating conditions (FCO), and Interactivity (INT), as well as its outcome, sustainability performance (SUSP), and the moderating effect of local authority stakeholders (LA). The following discussion analyzes these results from the hypothesis perspective, as summarized in Table 37 and Figure 14.

Hypothesis (H1): Perceived usefulness (PEU) has an insignificant impact on social media marketing adoption (SMA)

The empirical outcomes uncovered by the study show that perceived usefulness (PEU) does not influence social media marketing adoption (H1) ($p > 0.05$). According to the TAM theory, perceived usefulness (PEU) is seen as an intangible measurement reflecting a user's view (as CBTEs) that the adoption of a technology (as social media marketing) would improve their overall performance (Davis, 1989). Although CBTEs' owners may consider the potential advantages of social media for promoting their businesses, this perception alone does not strongly impact their decision to adopt it. Several reasons may explain this outcome. Firstly, contextual and structural barriers, such as poor internet connectivity, insufficient financial resources (Ngo et al, 2020; Truong et al, 2014), can minimise the perceived benefits. When operational challenges are high, usefulness becomes less relevant compared to feasibility and ease of implementation. Secondly, behavioral and cultural factors may also play a role because CBTEs are often managed by local community members whose business practices are rooted in personal relationships and word-of-mouth marketing (Mayaka, 2015; Ngo et al, 2018). Therefore, they may not see digital promotion as a necessary or trusted tool for attracting tourists. Consequently, the perceived usefulness of social media alone is insufficient to drive adoption among CBTE owners, as practical constraints, cultural values, and limited technological capability tend to moderate or weaken its effect.

Hypothesis (H2): Perceived ease of use (EOU) has a positive and significant impact on social media marketing adoption (SMA)

This research examined the influence of perceived ease of use (EOU) on social media marketing adoption (SMA). The empirical outcomes uncovered that perceived ease of use (EOU) positively and significantly influences social media marketing adoption (SMA) with statistical support ($\beta = 0.141$; $t = 3.357$). This discovery was consistent with the theory of the TAM model, which reflects its fundamental concept (Davis, 1989). This finding indicates that when CBTEs' owners find social media platforms simple, user-friendly, and convenient to operate, they are more willing to adopt and use them for marketing goals (Chatterjee et al, 2024; Chatterjee and Kar, 2020). The concept combines elements such as self-efficacy and simplicity (Chatterjee and Kar, 2020). This evidence showed that EOU has a positive relationship with the utilization of the new technology (Chatterjee and Kar, 2020; El-Gohary, 2012; Sugandini et al, 2019). Therefore, CBTEs will readily adopt social media marketing if they believe it would be simple and uncomplicated.

The interview results also support this factor in adopting social media marketing by CBTE's owners. Firstly, ease of use reduces psychological and technical barriers. Many CBTE owners, especially those in rural or less developed areas, may have limited digital skills (Ngo et al, 2020; Sinh et al, 2024a). When social media tools, such as Facebook, TikTok, or Instagram, are perceived as intuitive and require minimal training, owners feel more confident experimenting with them, which drives adoption. Secondly, technologies that are easy to learn increase perceived usefulness over time, as mentioned by almost all CBTEs in the in-depth interview results in section 4.1. As CBTEs' owners gain familiarity and see quick, visible outcomes, such as increased tourist engagement or bookings, they develop more positive attitudes toward continuous use of social media for marketing. Therefore, this factor plays a crucial role in driving social media marketing adoption among CBTE owners because of lowering entrance barriers, boosting confidence, and encouraging extended participation with digital platforms.

Hypothesis (H3): Cost (COS) has a positive and significant impact on social media marketing adoption (SMA)

This research finding showed that cost is the most essential element influencing the adoption of social media marketing by CBTEs. The study found that Cost (COS) positively and significantly influences social media marketing adoption (SMA) with statistical support ($\beta = 0.378$, $t = 8.782$). This finding was consistent with the theory of the UTAUT2 model (Venkatesh et al, 2012). This result was supported by previous literature (Chatterjee et al, 2024; El-Gohary, 2012; Ngo et al, 2020). The finding indicated that CBTEs' owners perceive social media as an affordable and cost-effective marketing tool compared to traditional advertising approaches. A CBTE is a micro-enterprise situated in a remote or rural region of a less-developed area (Ngo et al, 2020); hence, they remain careful and cautious concerning the cost aspects of each decision (El-Gohary, 2012).

Previous studies (Chatterjee et al, 2024; El-Gohary, 2012) emphasize a causal relationship between cost and technological adoption. Firstly, social media platforms require relatively low financial investment. Most tools, such as Facebook, Instagram, and TikTok, can be used for free or at minimal cost, allowing CBTEs with limited budgets to reach wide audiences without major expenses. This affordability increases the perceived value of social media marketing, encouraging adoption. Secondly, low operational and maintenance costs, such as creating content, sharing posts, or interacting with tourists online, make social media sustainable for small enterprises with limited resources. Thirdly, in developing contexts like

rural Vietnam, lower marketing costs can reduce financial risk, making technology adoption less intimidating and more accessible for small-scale tourism operators. As a result, cost-effectiveness plays a crucial role in motivating CBTE owners to adopt and continue using social media as a practical marketing strategy.

Hypothesis (H4): Compatibility (COM) has a positive and significant impact on social media marketing adoption (SMA)

This research examined the influence of compatibility (COM) on social media marketing adoption (SMA). The empirical findings indicated that compatibility (COM) positively and significantly influences social media marketing adoption (SMA) with statistical support ($\beta = 0.101$, $t = 2.183$). This finding was consistent with IDT theory (Rogers, 1983). This finding of the adoption of social media marketing in CBTEs was supported by previous literature, which was compatible with current practices (Chatterjee and Kar, 2020; El-Gohary, 2012). A technology that fits with the business's infrastructure, existing technology, values, culture, and preferred work schedules is more likely to be adopted (Tajudeen et al, 2018). Practically, CBTE owners will feel comfortable adopting technology if they feel it matches their existing experience and practices (Chatterjee and Kar, 2020; Hsu et al, 2007). As a result, compatibility should be regarded as an element that could encourage CBTEs to embrace social media marketing for the enhancement of their economic viability (Chatterjee et al, 2024; Chatterjee and Kar, 2020; El-Gohary, 2012).

The finding matched with the previous literature (Chatterjee et al, 2024; Chatterjee and Kar, 2020; El-Gohary, 2012). Firstly, compatibility reduces resistance to change. When social media fits naturally into the daily operations of CBTEs, such as sharing local experiences and promoting cultural events, this alignment makes adoption easier and more acceptable. Secondly, social media supports traditional marketing values common among CBTEs. Many CBTEs rely on trust and word-of-mouth promotion, and platforms like Facebook or TikTok allow them to share authentic community stories, photos, and videos in ways that resonate with their identity and local culture. Thirdly, when technology is perceived as compatible with existing skills and available resources, owners feel more confident and capable of using it. Therefore, compatibility (COM) positively affects social media marketing adoption (SMA) because technologies that align with CBTEs' existing practices, values, and resources reduce complexity, enhance comfort, and encourage active use of social media for tourism promotion.

Hypothesis (H5): Facilitating conditions (FCO) have a positive and significant impact on social media marketing adoption (SMA)

This research examined the influence of facilitating conditions (FCO) on social media marketing adoption (SMA). The empirical outcomes uncovered that facilitating conditions (FCO) positively and significantly influence social media marketing adoption (SMA) with statistical support ($\beta = 0.222$, $t = 5.475$). This result was consistent with the theory of the UTAUT2 model (Venkatesh et al, 2012). The adoption of social media marketing in CBTEs was supported by previous literature that enabled factors significantly influencing the adoption behavior of novel technology (Chatterjee et al, 2024; Chatterjee and Kar, 2020; El-Gohary, 2012). If CBTE owners have appropriate training for handling this new method and the present circumstance is conducive and motivates them to accept, they will adopt it (Chatterjee et al, 2024; El-Gohary, 2012). Hence, facilitating conditions, an element of the UTAUT2 model (Venkatesh et al, 2012) for analyzing adoption behavior, may also prove beneficial for CBTEs in adopting social media marketing (El-Gohary, 2012).

Previous literature (Chatterjee et al, 2024; El-Gohary, 2012) emphasizes this causal relationship. Firstly, sufficient infrastructure for technology, including a stable internet connection and availability of smartphones, provides the foundation for effective use of social media. In rural or remote areas where many CBTEs operate, such infrastructure plays a critical role in enabling consistent online activity and communication with potential tourists. Secondly, training and capacity-building programs offered by local authorities help CBTE owners develop digital skills and confidence. When owners receive guidance on how to use social media tools, create content, and engage with audiences, they are more likely to see technology as accessible and beneficial, leading to higher adoption. Therefore, the presence of strong technical, organizational, and institutional support systems enhances CBTE owners' ability, readiness, and motivation to use digital technologies effectively.

Hypothesis (H6): Interactivity (INT) has a positive and significant impact on social media marketing adoption (SMA)

This research examined the influence of interactivity (INT) on social media marketing adoption (SMA). The empirical results revealed that interactivity (INT) positively and significantly influences social media marketing adoption (SMA) with statistical support ($\beta = 0.141$, $t = 3.214$). This outcome was consistent with the theory of Interactivity (Tajudeen et al, 2018). Social media is regarded as a platform for interaction that facilitates two-way communication instead of one-directional dissemination of information to a community

(Királ'ová and Pavlíčka, 2015; Tajudeen et al, 2018). The interactivity element has been previously evaluated within the technological framework of Interactivity theory (Tajudeen et al, 2018). However, this research evaluates the interactivity element and its influence on social media adoption in CBTEs, given the interactive character of social media.

Literature review (Tajudeen et al, 2018; Tan et al, 2018) emphasizes this causal relationship. Firstly, interactivity supports social presence and relationship building, which are central to the CBT context. By engaging with visitors online, CBTEs can share authentic stories, showcase local culture, and foster a sense of belonging and connection even before tourists arrive. This aligns well with the relational nature of community tourism, where personal connection and trust are key success factors. Secondly, social media platforms enable real-time and direct interaction between CBTEs and potential visitors. This allows owners to respond quickly to inquiries, provide information, and receive immediate feedback, which helps strengthen customer trust and relationships. Direct communication with visitors creates a sense of connection and responsiveness that traditional marketing channels cannot offer.

Hypothesis (H7): Social media marketing adoption (SMA) has a positive and significant impact on sustainability performance (SUSP).

The study evaluated the impact of social media marketing adoption (SMA) on sustainability performance (SUSP). The empirical results indicated that social media marketing adoption (SMA) positively and significantly influences sustainability performance (SUSP) ($\beta = 0.645$, $t = 17.795$). This finding of the adoption of social media marketing in CBTEs was supported by previous literature that examined the correlation between social media marketing adoption and its effect on the sustainability performance of tourism SMEs, finding significant outcomes (Deb et al, 2024; Oyewobi et al, 2021; Sharma and Sharma, 2024). In the context of CBTEs, sustainability performance is measured by analysing a business's performance concerning the economy, society, and environment (Ngo et al, 2018). There is a limitation of empirical and theoretical literature concerning the perception and acceptance of social media marketing in relation to the adoption of CBTEs (Ngo et al, 2020). In particular, previous studies that utilized qualitative research have revealed the fact that social media plays a significant part in the promotion of CBTEs (Mkono, 2016; Ngo et al, 2020).

Previous research (Tajudeen et al, 2018; Tan et al, 2018) and results from the qualitative part also emphasize this causal relationship. Firstly, social media helps CBTEs reach broader markets at a relatively low cost. Through platforms such as Facebook, TikTok, and Instagram, CBTEs can attract domestic and international tourists, increase bookings, and enhance

revenue. This improved market visibility strengthens their financial stability and promotes long-term business viability. Secondly, social sustainability is enhanced through improved community engagement and cultural promotion. Social media enables CBTEs to share local stories, traditions, and experiences, thereby fostering cultural pride and social cohesion within the community. It also allows residents to participate more actively in tourism activities, promoting inclusive growth and community empowerment. Thirdly, from an environmental perspective, social media serves as a channel for raising awareness about eco-friendly practices and responsible tourism. CBTEs can use these platforms to educate visitors about environmental conservation and sustainable behaviors, which helps mitigate the ecological footprint of tourism activities. Consequently, social media marketing may contribute to the long-term sustainability of CBTEs.

Hypothesis (H8): Local authority stakeholder (LA) moderates the relationship between social media marketing adoption (SMA) and sustainability performance (SUSP).

This study evaluated the moderating role of local authority stakeholder (LA) on the connection between social media marketing adoption (SMA) and sustainability performance (SUSP). The empirical outcomes uncovered that local authority stakeholder (LA) positively increases and significantly influences the connection between social media marketing adoption (SMA) on sustainability performance (SUSP), with statistical support ($\beta = 0.105$, $t = 2.475$). Previous studies (Connell et al, 2009; John Massyn, 2007; Luan et al, 2023; Ngo et al, 2018) and results from the qualitative part also emphasize this relationship. Firstly, local government plays a facilitative and regulatory role in shaping CBTEs' implementation of social media marketing. When local governments provide supportive policies, digital infrastructure, and training programs, they strengthen the capacity of CBTEs to use social media effectively for promoting tourism and achieving sustainability goals. Secondly, collaboration with local authorities enhances the credibility and visibility of CBTEs' social media content. Endorsements, joint campaigns, or partnerships with tourism departments can help attract more visitors and increase trust among tourists (Ngo et al, 2018). Thirdly, local authorities act as coordinators between CBTEs and other stakeholders, including NGOs, educational institutions, and private tourism operators. By fostering networking and resource-sharing, they help CBTEs translate online marketing success into tangible sustainability outcomes such as job creation, cultural preservation, and environmental protection.

Therefore, the moderator role of local government can strengthen or weaken the effectiveness of social media approaches. When local authorities offer strong institutional support,

infrastructure, and collaboration, the positive influence of social media marketing on sustainability outcomes becomes significantly greater. However, the findings from the slopes analysis in section 4.4.5 indicated that strong control and intervention from local government may weaken sustainability performance of CBTEs through social media marketing. This suggests that excessive regulation or top-down management may restrict CBTEs' creativity, autonomy, and responsiveness in using social media platforms. When local authorities impose strict communication rules or centralized marketing strategies, CBTEs may lose flexibility in expressing their unique community identity and creating messages to specific audiences.

5 NEW SCIENTIFIC RESULTS

The main goal of this study was to examine the interrelationship between the antecedents, moderators, and outcomes of SMM adoption in CBTEs. The following table summarizes the key scientific novelties of this study, outlining the major research discoveries associated with each research objective and corresponding hypotheses while highlighting their theoretical, empirical, methodological, and analytical significance. Therefore, these contributions demonstrate the study's advancement of knowledge in social media marketing adoption and sustainability performance within the CBTE context. These new scientific contributions are summarized in Table 43 and Figure 16.

Table 43. Research Scientific novelty

No.	Novelty Type	Research Discovery	Hypothesis	Scientific Novelty
1	Antecedents of Social media marketing adoption	Empirically validated six antecedents influencing social media marketing adoption in the CBTE context.	H1 - H6	Validated (Contextual contribution)
2	Outcomes of Social media marketing adoption	Social media marketing adoption significantly enhances sustainability performance of CBTEs.	H7	New empirical evidence
3	Moderating role of Local authority stakeholders	Local authority stakeholders significantly moderate the relationship between social media marketing adoption and sustainability performance.	H8	New theoretical and empirical contribution
4	Comprehensive research model	Developed and validated an integrated model including antecedents, outcomes, and moderator variables.	H1- H8	New model development
5	Theoretical framework development	Extended TAM by integrating TAM, UTAUT, IDT, and Interactivity Theory to address limitations of a single-theory perspective.	—	New theoretical integration
6	Methodological contribution	Applied a sequential exploratory mixed-methods design for theory building, instrument development, and hypothesis testing.	—	New methodological approach
7	Scale development and validation	Developed and validated measurement scales for sustainability performance, social media marketing adoption, and local authority stakeholders.	—	New contextual scale validation

Source: Own research (2025)

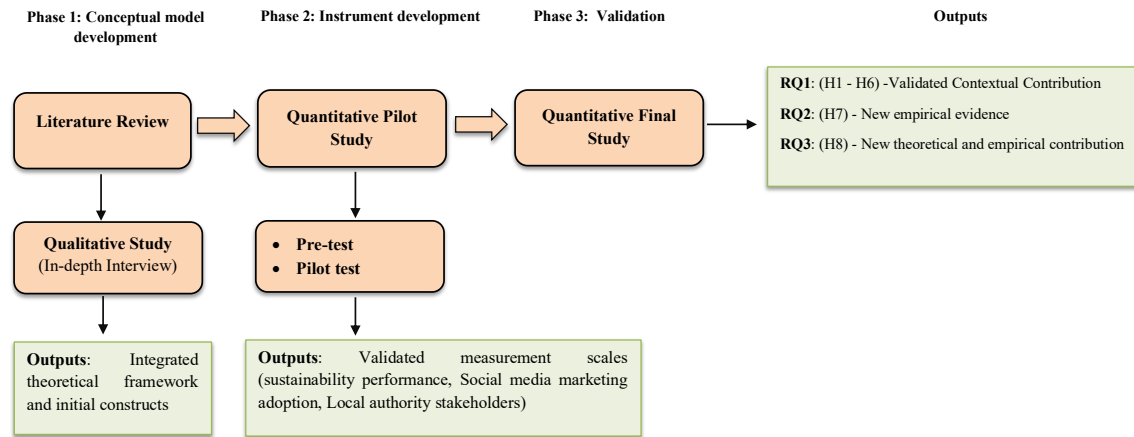


Figure 16. Scientific contributions and research design overview

Source: Own construction (2025)

The first scientific result provides a contextual contribution by empirically validating the antecedents of social media marketing adoption inside the CBTE framework (supporting hypotheses from 1 to 6). The outcomes suggest that the five antecedents (perceived ease of use, cost, compatibility, facilitating conditions, and interactivity) of SMM adoption in CBTEs in Vietnam. The most influential factor among these determinants is cost, which is indicative of the financial sensitivity of CBTEs. These micro-enterprises, which operate in remote or rural areas of less-developed regions, are known to be highly cautious in their investment decisions (Ngo et al, 2020).

The second scientific result provides additional empirical proof regarding the impacts of social media marketing adoption (supporting hypothesis 7). The study has determined that the increased adoption of SMM significantly enhances the economic, social, and environmental performance of CBTEs, which is consistent with the multidimensional conceptualization of sustainability performance in the CBT context (Ngo et al, 2018). The outcome is consistent with empirical research on tourism SMEs, which indicates that the implementation of social media marketing improves sustainability-related outcomes by increasing market visibility, involvement of stakeholders, and operational effectiveness (Deb et al, 2024; Oyewobi et al, 2021; Sharma and Sharma, 2024). Although both theoretical and empirical studies on the adoption of SMM within CBTEs are still limited (Mkono, 2016; Ngo et al, 2020), it is apparent that social media marketing adoption is a critical factor in the improvement of sustainability performance in CBTEs.

The third scientific result investigates the moderating influence of local government stakeholders (supporting hypothesis 8). The results indicate that local government stakeholders play a substantial moderating role in promoting the adoption of social media

marketing and the sustainability performance of CBTEs. This outcome is in accordance with previous research (Connell et al, 2009; John Massyn, 2007; Luan et al, 2023; Ngo et al, 2018) and is further supported by the outcomes of the qualitative study. Local governments offer regulatory assistance, digital networks, educational initiatives, and enabling legislation to facilitate the utilization and adoption of social media marketing among CBTEs (Luan et al, 2023; Ngo et al, 2018). Nevertheless, the slope analysis suggests that the positive effects of social media marketing adoption on sustainability performance may be reduced by excessive government intervention or control, which limits the independence, creativity, and flexibility of CBTEs. Consequently, the findings indicate that the most efficient way for local government stakeholders to support the adoption of social media marketing and sustainability performance is through facilitation and collaboration, rather than an excessive directive approach.

The fourth scientific result contributes a comprehensive research framework. The research establishes and validates a comprehensive structural model that integrates antecedents, outcomes, and moderating effects. The complete validation of this model contributes to a deeper comprehension of the intricate interrelations that explain the sustainability of CBTE. By integrating moderator analysis, creating context-specific instruments for measurement, and assessing the proposed hypotheses, the research contributes to a more comprehensive conceptual comprehension of multi-stakeholder participation in CBTEs, thereby expanding previous qualitative findings on the significance of local governments (Luan et al, 2023; Ngo et al, 2018; Truong et al, 2014).

The fifth scientific result contributes to the integration of theory. This study adopted the TAM theory, as well as combining competing theories such as UTAUT2, IDT, and Interactivity, to clarify the antecedents of social media marketing adoption. Prior studies have found that there are a number of studies that have discovered a similar relationship by combining the two theories. In particular, TAM and IDT theory (El-Gohary, 2012; Giovanis et al, 2012; Sujood et al, 2024); TAM and UTAUT theory (Ali et al, 2024; Chatterjee et al, 2024; Chatterjee and Kar, 2020; Tan et al, 2018); TAM and Interactivity (Abdullah, 2016; Liu and Shrum, 2002; Odoom et al, 2017; Tan et al, 2018). Therefore, the study expanded TAM theory by integrating four additional theories to address the limitations that arise from the individual theoretical perspectives, thereby advancing the overall framework. This combination illustrates the substantiation of the hypothesis and structural relationship, as a sole theory was inadequate for fully addressing the research problem. Consequently, this also stands out as unique within

the existing literature. Furthermore, this study expanded upon the primary antecedent impacting the adoption of social media marketing within CBTEs in the research framework.

The sixth scientific result presents a substantial methodological contribution. Qualitative research has been the sole focus of prior research in the context of CBTE (Manyara and Jones, 2007; Ngo et al, 2018). Consequently, the research employed a sequential exploratory mixed-methods design, which involved the use of both qualitative and quantitative methodological approaches to investigate the research questions deeply. The proposed framework was developed and empirically tested using this design. In-depth interviews were conducted to generate novel measurement indicators, and PLS-SEM was employed for hypothesis testing. The study offers a more careful examination of the relationships among the key constructs and deeper empirical evidence by integrating qualitative insights with reliable quantitative methods.

The seventh scientific result contributes to the validation and development of the scale. The research develops and validates measurement scales for sustainability performance, social media marketing adoption, and local authority stakeholders. These validated instruments provide reliable tools for future research within the CBTE and sustainability domains. This study introduced novel psychometric instruments for assessing hierarchical and multidimensional constructs of sustainability performance. Additionally, the majority of existing assessment frameworks are constructed within the context of SMEs and tourism SMEs (Franzoni, 2015; Qalati et al, 2022; Tajudeen et al, 2018) and limited prior studies on CBTEs, which only focus on qualitative research, including in-depth interviews (Manyara and Jones, 2007; Ngo et al, 2018). Consequently, this study integrates the economic, social, and environmental dimensions of sustainability performance with social media marketing adoption and local authority stakeholders in the CBTE context. The research employed a sequential exploratory mixed-methods design and systematically developed and validated the scales (Churchill Jr, 1979), including psychometric evaluation of the Vietnamese adaptation of sustainability performance measures for CBTEs.

6 CONCLUSION AND FUTURE RESEARCH DIRECTIONS

6.1. Conclusion

This study aims to investigate three main research questions about the antecedents, outcomes, and moderators of social media marketing adoption in CBTEs in Vietnam, therefore facilitating the application of these findings to other contexts. A study framework was developed and empirically validated to evaluate the structural correlation through the collection of cross-sectional survey data from 377 CBTE owners in Vietnam, utilising the literature, qualitative research, and a pilot study. Furthermore, the research examined the moderating influence of local authority stakeholders in fostering the relationship between social media marketing adoption and the sustainability performance of CBTEs. Regarding one of the pioneering studies, this study offers empirical evidence establishing the connection among social media marketing adoption, sustainability performance, and local authority stakeholders of CBTEs. The research investigated eight hypotheses.

Particularly, the hypothesis testing results revealed several important relationships within the proposed model. First, perceived usefulness showed an insignificant impact on social media marketing adoption ($p > 0.05$). In contrast, perceived ease of use had a positive and significant influence on social media marketing adoption. Similarly, cost and compatibility both demonstrated positive and significant effects on social media marketing adoption. The fifth hypothesis confirmed that facilitating conditions also had a positive and significant effect on social media marketing adoption. Moreover, interactivity was found to positively and significantly influence social media marketing adoption. The seventh hypothesis established a positive and significant relationship between social media marketing adoption and sustainability performance. Finally, the moderating role of local authority stakeholders was found to be positive and significant, confirming that local government plays a complementary, partial moderating role in strengthening the relationship between social media marketing adoption and sustainability performance.

The results highlighted the influence of several elements on the adoption of social media marketing by CBTEs. The study reveals that five key elements (perceived ease of use, cost, compatibility, facilitating conditions, and interactivity) positively influence the adoption of social media marketing in CBTEs. However, the research indicates that perceived usefulness does not influence social media marketing adoption. Although CBTEs' owners may recognize the potential benefits of social media for promoting their businesses, this perception alone is

insufficient to drive adoption among CBTEs' owners. To enhance the situation, it is essential for policymakers and local governments to ensure financial, infrastructural, cultural, and managerial improvements to foster an advantageous environment, as well as provide effective training classes to improve social media marketing skills for CBTE owners. If this is guaranteed, the utilization of social media marketing by the CBTEs will improve sustainability performance of CTBEs. In addition, this research showed that cost is the most significant element that impacts the adoption of social media marketing by CBTEs. This explains that a CBTE is a micro-enterprise situated in a remote or rural region of a less-developed area (Ngo et al, 2020); hence, they remain careful and cautious concerning the cost aspects of each decision (El-Gohary, 2012).

The findings also demonstrated an important beneficial effect of social media marketing adoption on the sustainability performance of CBTEs. The finding matches prior research (Chatterjee and Kar, 2020; Qalati et al, 2022). In addition, the most significant contribution is the moderating function of local authority stakeholders in promoting the relationship between social media marketing adoption and sustainability performance of CBTEs. When local authorities offer strong institutional support, infrastructure, and collaboration, the positive influence of social media marketing on sustainability outcomes becomes significantly greater. Indeed, these results could be used as a framework for future research in the scope of CBT in developing nations. The results of this research are expected to assist governments in these countries in formulating and implementing effective social media marketing adoption strategies to enhance the sustainability and economic advancement of the CBT sector.

6.2. Implications

6.2.1. Theoretical Implications

The theoretical findings from this study encompass a more comprehensive analysis of the intricate interrelationship between the antecedents, moderators, and outcomes of social media adoption in CBTEs. The key theoretical contributions of these findings are outlined as follows:

Firstly, the literature review showed that there are a number of studies that have discovered a similar relationship by combining the two theories. In particular, TAM and IDT theory (El-Gohary, 2012; Giovanis et al, 2012; Sujood et al, 2024); TAM and UTAUT theory (Tan et al, 2018) (Ali et al, 2024; Chatterjee et al, 2024; Chatterjee and Kar, 2020); TAM and Interactivity (Abdullah, 2016; Liu and Shrum, 2002; Odoom et al, 2017; Tan et al, 2018).

Therefore, the empirical study proposed a novel research framework based on the connection and combination of TAM theory with other common theories, namely UTAUT, IDT, and Interactivity theory. The findings support and address the limited implementation of other researchers in the tourism sector (Chatterjee and Kar, 2020; Dahnil et al, 2014; El-Gohary, 2012; Tan et al, 2018). In general, the framework has the potential to explain 60.7% of the variance in the elements that influence the adoption of social media marketing. Consequently, it is expected that the framework will be useful as a valuable reference in the digital context for other marketing and tourism scholars who are interested in implementing social media marketing in other developing nations.

Secondly, the relevance of social media marketing in CBT and CBTEs remains a new research domain for scholars and professionals. Previous literature concentrated and found that the adoption of social media marketing significantly improves sustainability performance of tourism SMEs generally (Deb et al, 2024; El-Gohary, 2012; Sharma and Sharma, 2024). These findings add to the limited literature on CBTEs and digital marketing in developing economies by shedding light on the adoption of social media marketing among CBTEs. It offers valuable insights into these enterprises utilize digital platforms to enhance engagement, visibility, and sustainability within the tourism sector (Mkono, 2016; Ngo et al, 2020).

Thirdly, the findings offer empirical validation for the proposed interconnected relationships within the theoretical framework (Chatterjee and Kar, 2020; Deb et al, 2024). Specifically, the findings validate the theoretical assumptions that link the antecedents (factors impacting social media marketing adoption), moderators (local authority stakeholders), and outcomes (sustainability performance) of social media marketing adoption within the context of CBTEs. These findings fill an important gap in the literature by empirically illustrating a complex theoretical model about social media marketing adoption in CBTEs.

Fourthly, this research empirically extends and examines the moderation of local authority stakeholders in influencing the relationship between the adoption of social media marketing and the sustainability performance of CBTEs, thereby contributing to the literature gap (Ngo et al, 2018; Snyman, 2014). Prior studies have only concentrated on qualitative research, indicating that local authority stakeholders significantly influence CBTE development (Luan et al, 2023; Ngo et al, 2018; Truong et al, 2014) and social media marketing (Mkono, 2016; Ngo et al, 2020). However, none of them specifically examined local government stakeholders' moderating role on social media marketing adoption and sustainability performance in this context in CBTEs. Theoretically, in the context of CBTE collaborative

marketing literature, it supports a more comprehensive understanding of the engagement of multiple stakeholders (Ngo et al, 2018).

Fifthly, this study advances the theory by developing an empirically validated and theoretically justified multi-dimensional measurement for sustainability performance, encompassing economic, social, and environmental aspects. Moreover, these findings contribute to the new findings from the literature on social performance that CBTEs support social media marketing, enabling women to gain greater control over their lives, decision-making power, and resources by actively participating in tourism-related activities. This helps empower women through tourism and financial independence. In addition, this research contributes to the new findings from the literature on environmental performance that CBTEs, under supported social media marketing, local residents try to reduce the consumption of energy and promote efficient use of natural resources. This practice is vital for ensuring long-term environmental sustainability and reducing the ecological footprint of tourism activities

6.2.2. Practical Implications

Further to these theoretical findings, the outcomes of this research have numerous implications for policymakers, stakeholders, managers, and owners of CBTEs who participate in social media marketing practices.

Firstly, on a global scale, the adoption of social media marketing platforms such as Instagram, Facebook, WhatsApp, and others has emerged as an effective and prominent strategy for marketing professionals. The research provides significant insights for CBTE owners and managers, indicating that the sustainability performance of their organization can be improved by strengthening social media marketing skills. Therefore, significant social media marketing skills (including content writing, graphic design, and video production) are required to manage social media platforms in CBTEs in developing countries, which ultimately impacts sustainability performance. In addition, CBTEs should emphasize sustainability-focused communication, highlighting their contributions to community well-being, environmental protection, and women's empowerment. By fostering inclusive participation, integrating affordable digital tools, and managing resources efficiently, CBTEs can enhance their competitiveness while supporting long-term sustainable tourism development.

Secondly, the recognized antecedents of social media marketing adoption offer policymakers a more comprehensive understanding, allowing them to concentrate on the critical factors (perceived ease of use, compatibility, facilitating conditions, interaction) that have a positive

relationship with social media marketing adoption. Considering the significance of these factors, government departments, non-governmental organizations (NGOs), and other institutions connected with CBTEs will gain enhanced insight into the various elements influencing the adoption of social media marketing. This understanding can subsequently inform the formulation and guidance of future plans, policies, and strategies for these agencies and institutions, not only for Vietnam but for all similar nations. In addition, costs are critical factors influencing social media marketing adoption; therefore, NGOs and governmental agencies can offer CBTE owners appropriate training in content writing, graphic design, and video production to enhance their skills. This helps them build social marketing strategies and skills cost-effectively.

Thirdly, local authority stakeholders play a vital moderating function in promoting the relationship between social media marketing adoption and sustainability performance. The participation of the CBTE cooperative is crucial during the early phases of the CBTEs, when they remain vulnerable to the exploitative purposes of the private sector (Ngo et al, 2018). Therefore, local governments should enhance digital infrastructure in rural and remote communities to ensure that CBTEs have adequate internet access and connectivity for effective online marketing. Improved infrastructure will enable these enterprises to participate more fully in the digital economy and reach broader markets. In addition, policymakers should prioritize training and education programs that build the digital competencies of CBTE owners. Collaborations with educational institutions, NGOs, and tourism associations can help design targeted workshops focusing on social media management, content creation, and digital branding. Moreover, local governments should adopt a facilitative and collaborative governance approach. Rather than exerting excessive control, authorities should act as enablers, providing resources, platforms, and policy guidance that encourage innovation and local autonomy.

Fourthly, this study was conducted within the framework of CBT in a mountainous region of northern Vietnam, where tourism functions as a vital sector for rural development and poverty reduction. This context is particularly relevant as CBT has gained prominence across developing regions in Africa, Latin America, and Asia (Kontogeorgopoulos et al, 2014; Ngo et al, 2018), where communities face similar socio-economic and infrastructural challenges. Therefore, this empirical application of theoretical principles enhances the comprehension of social media marketing adoption on CBTEs. The findings contribute to understanding in the

Southeast Asian context by showing that digital transformation can empower local communities, preserve cultural heritage, and support sustainable tourism development.

6.3. Limitations and Future research directions

Although considerable theoretical, research, managerial, and implications were identified, our findings indicate some limitations that need attention in future research. Figure 17 includes a summary of numerous limitations and highlights potential future opportunities.

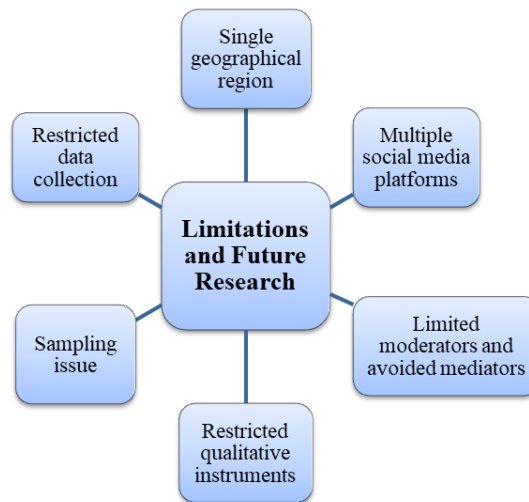


Figure 17. Limitations and future opportunities

Source: Own research (2025)

Firstly, this research was conducted from the viewpoint of a developing nation, primarily focusing on Vietnam, which could limit the relevance to other locations with differing economic, technological, and regulatory contexts. Consequently, conducting a cross-country comparison to replicate this investigation can serve to further validate the results of this study. Specifically, other developing nations with the same contexts, such as Thailand, Laos, and Cambodia, would make major contributions. Additionally, there may exist additional factors in adopting social media marketing that are significant for different geographical situations. Future research should incorporate those elements and examine them in other national contexts.

Secondly, this research evaluated the overall effect of social media marketing adoption on the sustainability performance of CBTEs by considering multiple platforms collectively. However, each platform, such as Instagram, Facebook, TikTok, and YouTube, contains distinct features, advantages, and disadvantages. Therefore, future research might focus on individual platforms and conduct in-depth evaluations to understand their specific

contributions. Platform-specific investigations could reveal which digital tools are most effective for promoting CBT, enhancing visibility, and improving long-term performance.

Thirdly, the current research employed multi-dimensional constructs to investigate the moderating influence of local authority stakeholders. Nonetheless, numerous stakeholders, including tour operators, non-governmental organizations (NGOs), community associations, social institutions, and CBTE networks, are the critical stakeholders of CBTEs (Dodds et al, 2018; Ngo et al, 2018). Therefore, future research might include additional moderators, such as local government or NGOs, and mediators, including innovation capability, to evaluate the effects of CBTEs on the utilization of social media platforms.

Fourthly, this research employed semi-structured interviews exclusively with owners of CBTEs to explore social media marketing adoption and its effect on sustainability performance. While this approach provided valuable firsthand insights from business owners, future research could benefit from incorporating key informant interviews and focus group discussions to gain a more thorough understanding of the subject. Moreover, conducting semi-structured interviews with the local government would deepen understanding of the institutional and policy environment that shapes social media marketing adoption and sustainable tourism practices. Combining these qualitative techniques would enrich the analysis by triangulating data from multiple sources, thereby offering a more integrated view of the social, organizational, and policy elements impacting the effective use of social media in the CBT sector.

Fifthly, this study has a limitation concerning sampling design selection, as it employed non-probability convenience sampling for quantitative data collection. This approach, while practical for reaching participants, may not fully represent the wider population of CBTEs and could introduce sampling bias. Consequently, the findings should be interpreted with caution about generalizability. Therefore, future research may consider using convenience sampling to identify accessible CBTEs and then apply purposive criteria to ensure variation in location, size, or experience with social media marketing. Such a hybrid sampling approach would enhance the robustness and credibility of the results while maintaining practical feasibility in field research settings. Expanding the sample size and including CBTEs from different regions would also strengthen the reliability and external validity of future studies.

7 SUMMARY

CBTEs are recognised as a highly prospective approach for advancing sustainable development at the level of local communities. Because CBTEs can contribute to conservation efforts, provide jobs for residents, increase the variety of incomes, offer additional revenue, and support the empowerment of the community (Lemelin et al, 2015; Sakata and Prideaux, 2013). Furthermore, CBTEs can contribute to the preservation of the region's natural biodiversity and offer a sustainable subsistence, thereby achieving both socioeconomic development and environmental conservation in the area (Pradhan and Samanta, 2022; Salafsky et al, 2001). Despite their advertised potential to bring financial advantages to local communities through tourism, CBTEs rarely achieve sustained financial success (Goodwin and Santilli, 2009; Ngo et al, 2018; Weaver, 2010). However, the sustainability challenge among CBTEs is a fundamental challenge that requires a solution through the implementation of effective social media marketing techniques (Lee et al, 2024; Ngo et al, 2019). Digital marketing, including social media marketing, is essential for the long-term success of CBTEs as well as for other management functions (Beetson et al, 2020; Ngo et al, 2020).

This research aims to investigate three main research questions about the antecedents, outcomes, and moderators of social media marketing adoption in CBTEs in Vietnam, therefore facilitating the application of these findings to other contexts. Generally, the research results confirm the research model and support the majority of the hypotheses. This study conducted qualitative research to contextualize the measurement indicators and factors of social media marketing adoption, sustainability performance, and local government stakeholders in the perception and experience of 14 owners of CBTEs in Vietnam. Drawing on insights from the literature review, interviews, and pilot surveys, the researcher developed a conceptual model and corresponding questionnaire encompassing three dimensions: social media marketing adoption, sustainability performance, and local authority stakeholders. Non-probability convenience sampling was applied for the quantitative phase, while purposive sampling guided the qualitative interviews. Qualitative data were examined utilizing content and thematic analysis with NVivo 15 software, while quantitative data were evaluated using descriptive statistics in SPSS 26 and inferential analysis through SmartPLS 4. The questionnaire, distributed online via Google Forms, underwent pre-testing and a pilot survey to ensure validity and reliability before the main survey, which gathered responses from 377 CBTE owners across Vietnam.

The hypothesis testing results revealed several key relationships within the proposed model. Specifically, perceived usefulness showed an insignificant effect on social media marketing adoption ($p > 0.05$), while perceived ease of use, cost, compatibility, facilitating conditions, and interactivity each demonstrated positive and significant effects on social media marketing adoption among CBTEs. In contrast, perceived usefulness insignificantly influences adoption, suggesting that CBTE owners may not entirely comprehend the long-term benefits of social media marketing. Therefore, to enhance adoption, policymakers and local governments should focus on improving financial support, infrastructure, and managerial capacity while offering training programs to strengthen CBTE owners' social media marketing skills. Such initiatives would create a more favourable environment for the effective use of social media marketing tools, ultimately improving the operational and sustainable performance of CBTEs. Additionally, the results indicated that cost is the strongest determinant of social media marketing adoption among CBTEs. This reflects that CBTEs operate as micro-enterprises in rural or remote areas of less-developed regions (Ngo et al, 2020), where financial constraints necessitate cautious and cost-sensitive decision-making (El-Gohary, 2012).

Moreover, the findings indicated a substantial positive correlation between social media marketing adoption and the sustainability performance of CBTEs. The finding matches prior research (Chatterjee and Kar, 2020; Qalati et al, 2022). Additionally, the study identified the moderating role of local authority stakeholders as both positive and significant, confirming that local governments play a complementary, partial moderating role in strengthening this relationship. This finding underscores the importance of active involvement from local authorities in fostering social media marketing adoption and supporting sustainability initiatives within CBTEs. This study offers a practical framework for future research in the CBT context, particularly in developing nations. The results also suggest valuable guidance for policymakers seeking to promote sustainable development by integrating social media marketing strategies into the long-term planning and management of CBTEs.

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APPENDICES

Appendix 1: Interview protocol for qualitative study

The semi-structured interview will allow participants to raise and explore issues relevant to the research. The following questions are indicative questions that will act as a question guide for the start of the interview.

Research question: What are the managerial professionals' perceptions and experiences about using social media marketing and sustainability performance in community-based tourism enterprises in Vietnam?

1. Please tell me about your current job title and years of professional experience in running community-based tourism enterprises.
2. Could you kindly provide information regarding the background of your enterprise (Sectors of Tourism, Number of employees working and Number of years since establishment)?

Social media marketing

1. Could you please tell me what social media marketing applications you have experience with for advertising your enterprise?
2. Why do you use these social media marketing applications in your business?
3. What do you think is the biggest challenge in social media marketing applications in your business?
4. Could you please explain specific examples of social marketing campaigns you worked on that have been effective in your firm? What approaches did you take, what challenges did you face, and how were you successful?
5. In your opinion, what are the essential factors for the adoption of social media marketing in community-based tourism enterprises in Vietnam?
6. Do you have any social media marketing plans for your business?

Sustainability performance

1. What are the different economic indicators before and after applying social media marketing applications in your business? (numbers of visitors, seasons and years of operation, sales growth, productivity, profitability)

2. What are the different environmental indicators before and after applying social media marketing applications in your business? (Biodiversity, Protection of natural resources, pollution prevention, energy consumption)?
3. What are the different social indicators between before and after applying social media marketing applications in your business? (Quality of life, Conservation of cultural heritage, numbers of visitors, seasons and years of operation, sales growth, productivity, profitability)

Probing if necessary

Do you have any additional thoughts or insights on the topic of social media marketing and sustainability performance in community-based tourism enterprises in Vietnam that you would like to share?

Thank you for your time and assistance!

Appendix 2: Survey questionnaire

ENTERPRISE QUESTIONNAIRE

SOCIAL MEDIA MARKETING FOR SUSTAINABILITY OF COMMUNITY-BASED TOURISM ENTERPRISES IN VIETNAM

Introduction

I am PhD-student from the University of Sopron in Hungary, who is interested in all activities relating to social media technologies utilisation in marketing activities of community-based tourism enterprises. You have been randomly selected to participate in the interview, which contains questions connect with individual characteristics, specialty who participate in the tourism enterprise. Thank you very much for your information.

The purpose of this study is to collect information on the current state of social media marketing in community-based tourism enterprises in the mountainous province, as well as how such social media marketing affects their sustainable development of community - based tourism enterprises.

I assure that all of your information during this interview will be kept confidential and will only be used for research purposes. We will be grateful if you can take a few minutes of your time to answer the questions. The questionnaire should not take you more than 15 minutes to complete. If you have any questions or comments about this survey, you may contact Ms. Tran Thi Thuy Sinh; Cell phone: 0325256996 or email: thuysinh2592@gmail.com.

Thanking you in advance for your positive response.

The questionnaire consists of 5 main parts:

- Module 1: Demographic data
- Module 2: Background data about the Enterprise
- Module 3: Corporate Stakeholders
- Module 4: Factors affecting social media marketing adoption
- Module 5: Social media marketing adoption and CBTEs' sustainability performance

Date: / /2025

Name of the interviewer:.....

MODULE 1. DEMOGRAPHIC DATA

1.1 Please provide some contact information:

Your enterprise name:.....

Village:.....District:.....Province.....

Phone number:.....

Email (if any):.....

1.2 Age (years old):

1. Under 20 ☐	3. 31-40 ☐	5. 51-60 ☐
2. 21-30 ☐	4. 41-50 ☐	6. Over 60 ☐

1.3 Gender : 1. Male ☐ 0. Female ☐

1.4 Religion:

1.Kinh ☐	3. Dao ☐	5.Giay ☐	7.Tay ☐
2.H'Mông ☐	4.Thai ☐	6.Muong ☐	8.Others (specify) ☐

1.5 The highest education level

0. No education ☐	2. Secondary school ☐	4. Elementary training ☐	6. College ☐
1. Primary school ☐	3. High school ☐	5. Intermediate training ☐	7. University and higher ☐

MODULE 2. BACKGROUND DATA ABOUT THE ENTERPRISE

2.1 What sectors of community tourism is your family currently doing?

1. Accommodation (Homestay/ Bungalow/ Resort...	1. Yes ☐	0. No ☐
2. Food and beverage	1. Yes ☐	0. No ☐
3. Travel agencies	1. Yes ☐	0. No ☐
4. Transportation	1. Yes ☐	0. No ☐
5. Attractions	1. Yes ☐	0. No ☐

2.2 What is your role in the community tourism enterprise?

1. Owner	1. Yes ☐	0. No ☐
2. Manager	1. Yes ☐	0. No ☐

2.3 Please indicate the years your enterprise has been in operation?

1. 1-5 years ☐ 2. 6-10 years ☐ 3. 11-15 years ☐ 4. 16-20 year ☐ 5. Over 20 years ☐

2.4 Income from tourism accounts for what % of the total income of households/ enterprises?

1. Under 20% ☐ 2. 21-40% ☐ 3. 41-60% ☐ 4. 61-80% ☐ 5. Over 80% ☐

2.5 What applications do tourists know about your enterprise?

Social media networking			E-commerses		
1. Facebook	1. Yes ☐	0. No ☐	1. Booking	1. Yes ☐	0. No ☐
2. Zalo	1. Yes ☐	0. No ☐	2. Agoda	1. Yes ☐	0. No ☐
3. Website	1. Yes ☐	0. No ☐	3. Expedia	1. Yes ☐	0. No ☐
4. WhatsApp	1. Yes ☐	0. No ☐	4. Airbnb	1. Yes ☐	0. No ☐
5. TikTok	1. Yes ☐	0. No ☐	5. Traveloka	1. Yes ☐	0. No ☐
6. Instagram	1. Yes ☐	0. No ☐	6. TripAdvisor	1. Yes ☐	0. No ☐
7. YouTube	1. Yes ☐	0. No ☐	7. Vntrip	1. Yes ☐	0. No ☐
Others (<i>specify</i>).....			Others (<i>specify</i>).....		

2.6. Do you partner with tour operators to welcome visitors?

1. Yes ☐ 0. No ☐

(If YES, answer questions 11.1, 11.2. If NO, answer question 11.3)

2.6.1. If yes, how long has the cooperation been? ... (year)

2.6.2. If any, the number of collaborating enterprises is.....(enterprise)

2.6.3. If you DO NOT cooperate with the enterprises, please let us know the reason:

- a. Do not know which enterprise to collaborate with: 1. Yes ☐ 0. No ☐
- b. Know, but we could not reach an agreement: 1. Yes ☐ 0. No ☐
- c. Other reasons (*specify*).....

2.7. Do you participate in any professional training classes for tourism from the local government?

1. Yes ☐ 0. No ☐

(If YES, answer questions 15.1, 15.2. If NO, answer question 15.3)

2.7.1. Which types of professional training skills do you have?

- | | | |
|---|---------------------------------|--------------------------------|
| 1. Communication skills | 1. Yes ☐ | 0. No ☐ |
| 2. Cooking skills | 1. Yes ☐ | 0. No ☐ |
| 3. Housing decoration skills | 1. Yes ☐ | 0. No ☐ |
| 4. Business management skills | 1. Yes ☐ | 0. No ☐ |
| 5. Learn skills and experiences from other tourist destinations | 1. Yes ☐ | 0. No ☐ |

6. Other training (*specify*):.....

2.7.2. Which types of social media training skills do you have?

- | | | |
|--|---------------------------------|--------------------------------|
| 1. Graphic design and video production | 1. Yes ☐ | 0. No ☐ |
| 2. Writing ability | 1. Yes ☐ | 0. No ☐ |
| 3. Social media management | 1. Yes ☐ | 0. No ☐ |
| 4. Customer communication skills | 1. Yes ☐ | 0. No ☐ |

5. Other training (*specify*):.....

2.7.3. Is the training a helpful class for you in developing community tourism?

- ☐ 1. Very unhelpful ☐ 2. Unhelpful ☐ 3. Neutral ☐ 4. Useful ☐ 5. Very useful

2.7.3. If you have NOT participated in the training, please provide the reason:

- | | | |
|--|---------------------------------|--------------------------------|
| 1. There is no need | 1. Yes ☐ | 0. No ☐ |
| 2. There is a need, but no information | 1. Yes ☐ | 0. No ☐ |
| 3. Registered, but not participating yet | 1. Yes ☐ | 0. No ☐ |

4. Other reasons (*specify*):.....

MODULE 3. CORPORATE STAKEHOLDERS AND INNOVATION CAPABILITIES (IC)

Please review the statements below and indicate the level to which you agree or disagree with each statement (please select your choice from “1” to “5” where “3” indicates neutral).

3.1. The role of travel agencies in your enterprise:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	Local government support safety and environmental regulations	☐	☐	☐	☐	☐
2	Local government support for credit policy	☐	☐	☐	☐	☐
3	Local government support for training and coaching	☐	☐	☐	☐	☐
4	Local government support for infrastructure investment	☐	☐	☐	☐	☐
5	Local government support for linking with other tourism enterprises	☐	☐	☐	☐	☐
6	Local government support for information provision	☐	☐	☐	☐	☐
7	Other supports (<i>specify</i>).....					

MODULE 4. FACTORS AFFECTING SOCIAL MEDIA MARKETING ADOPTION

Please review the statements below and indicate the level to which you agree or disagree with each statement (please select your choice from “1” to “5” where “3” indicates neutral).

4.1 Your opinion about the perceived usefulness (PEU) of using social marketing:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	Increase in business opportunities	☐	☐	☐	☐	☐
2	Allow for better advertising and marketing	☐	☐	☐	☐	☐
3	Enhancement in competitiveness	☐	☐	☐	☐	☐
4	Improvement in customer service	☐	☐	☐	☐	☐
5	Improvement in customer relations and satisfaction	☐	☐	☐	☐	☐
6	Analyze customer requirements more efficiently	☐	☐	☐	☐	☐
7	Other (<i>specify</i>).....					

4.2. Your opinion about the perceived ease of use (EOU) of social media marketing:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	Overall, it is easy to learn social media marketing	☐	☐	☐	☐	☐
2	It is easy to identify new customers using social media	☐	☐	☐	☐	☐
3	It is easy to understand customer demand quickly using social media	☐	☐	☐	☐	☐
4	Information retrieval about a customer is easy using social media	☐	☐	☐	☐	☐
5	Advertising products and services on social media platforms is easy	☐	☐	☐	☐	☐
6	Other (<i>specify</i>).....					

4.3. Your opinion about the cost (COS) of using social media marketing:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	My cost of dealing with customer enquiries has been reduced by using social media marketing	☐	☐	☐	☐	☐
2	Cost of identifying new customers has been reduced through the use of social media marketing	☐	☐	☐	☐	☐
3	Customer awareness and training costs have been diminished by the use of social media marketing	☐	☐	☐	☐	☐

4	The overall advertising and promotion costs have gone down using social media marketing	☐	☐	☐	☐	☐
5	Other (<i>specify</i>).....					

4.4. Your opinion about the compatibility (COM) when using social media marketing:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	Social media adoption is compatible with our information technology infrastructure	☐	☐	☐	☐	☐
2	Social media adoption is consistent with our organizational beliefs and values	☐	☐	☐	☐	☐
3	Social media adoption is consistent with business strategy	☐	☐	☐	☐	☐
4	Social media adoption is consistent with our organizational marketing purpose	☐	☐	☐	☐	☐
5	Other (<i>specify</i>).....					

4.5. Your opinion about the facilitating conditions (FCO) when using social media marketing:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	We have adequate infrastructure for using social media	☐	☐	☐	☐	☐
2	Our organization invests adequately in social media marketing	☐	☐	☐	☐	☐
3	We have enough trained manpower dealing with social media marketing	☐	☐	☐	☐	☐
4	We have an in-house training facility to learn about different aspects of social media marketing	☐	☐	☐	☐	☐
5	Other (<i>specify</i>).....					

4.6. Your opinion about interaction with customers (INT) in using social media marketing:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	The social media sites provide features for using are vivid and evoke responses.	☐	☐	☐	☐	☐
2	The social media sites provide features for quick interactive communication with our customers.	☐	☐	☐	☐	☐
3	The social media sites provide an appropriate amount of interactive features (such as graphics, pop-up windows, animation, music, voices)	☐	☐	☐	☐	☐
4	Other (<i>specify</i>).....					

MODULE 5. SOCIAL MEDIA MARKETING ADOPTION AND CBTES' SUSTAINABILITY PERFORMANCE

Please review the statements below and indicate the level to which you agree or disagree with each statement (please select your choice from “1” to “5” where “3” indicates neutral).

5.1. Social media marketing adoption in your tourism enterprise:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	My enterprise adopted social media for creating and distributing marketing content	☐	☐	☐	☐	☐
2	My enterprise adopted social media to improve customer loyalty and retention	☐	☐	☐	☐	☐
3	My enterprise adopted social media to improve customer relationships	☐	☐	☐	☐	☐
4	My enterprise adopted social media to access general, customer, and competitor information	☐	☐	☐	☐	☐
5	Other (<i>specify</i>).....					

5.2. Economic performance after using social marketing in your tourism enterprise:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	My enterprise increases in the number of customers	☐	☐	☐	☐	☐
2	My enterprise increases in customer loyalty and retention	☐	☐	☐	☐	☐
3	My enterprise improved customer relationships	☐	☐	☐	☐	☐
4	My enterprise decreases the cost of marketing activities, such as promotion and advertising.	☐	☐	☐	☐	☐
5	My enterprise increased information accessibility	☐	☐	☐	☐	☐
6	Other (<i>specify</i>).....					

5.3. Social performance after using social marketing in your tourism enterprise:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	My enterprise is empowering women through tourism and financial independence	☐	☐	☐	☐	☐
2	My enterprise contributes to creating job opportunities in local community.	☐	☐	☐	☐	☐

3	My enterprise preserves indigenous culture and local traditions	☐	☐	☐	☐	☐
4	Other (<i>specify</i>)					

5.4. Environmental performance after using social marketing in your tourism enterprise:

Number	Statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1	My enterprise contributes to protecting natural resources	☐	☐	☐	☐	☐
2	My enterprise contributes to maintaining biodiversity.	☐	☐	☐	☐	☐
3	My enterprise is raising environmental awareness in the community	☐	☐	☐	☐	☐
4	Other (<i>specify</i>)					

Thank you for your time!

Appendix 3: Declaration on identity

DECLARATION ON IDENTITY

I, the undersigned, **Tran Thi Thuy Sinh**, declare that **the printed and electronic versions** of the doctoral dissertation and thesis booklet **are identical in all respects**.

Sopron, 20____ year _____ month _____ day

signature of PhD candidate

Appendix 4: Legal declaration

LEGAL DECLARATION

I, the undersigned, **Tran Thi Thuy Sinh**, by signing this declaration declare that my PhD dissertation was my own work; during the dissertation I complied with the Act LXXVI of 1999 on the rules of copyright and the rules of the doctoral dissertation prescribed by the Doctoral School, especially regarding references and citations.¹

Furthermore, I declare that I did not mislead the supervisor (s) or the program leader with the dissertation.

By signing this declaration, I acknowledge that if it can be proved that the dissertation is not self-made or the author of a copyright infringement is related to the dissertation, the University of Sopron is entitled to refuse the acceptance of the dissertation.

I further declare that I am not in the process of obtaining a doctoral degree in the same discipline, that I am not in the process of having my doctoral degree revoked, and that I have not had a previously awarded doctoral degree revoked within 5 years.

Refusing to accept a dissertation does not affect any other (civil, legal, criminal) consequences of copyright infringement.

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signature of PhD candidate

¹ *LXXVI. TV. 1999 Section 34 (1) Any person may quote the details of the work, to the extent justified by the nature and purpose of the receiving work and in the original, by the name of the source and the author designated there.*

Article 36 (1) Details of public lectures and other similar works, as well as political speeches, may be freely used for information purposes, within the scope justified by the purpose. For such use, the source, along with the author's name, should be indicated, unless this is impossible.

Appendix 5: Co-author's declaration

CO-AUTHOR'S DECLARATION

(each article must be declared on a separate page)

I/We, the undersigned **Dr. Németh Nikoletta PhD and Dr. Md. Sadrul Islam Sarker** co-author(s) agree that **Tran Thi Thuy Sinh** doctoral student **may use the results of the joint publication** titled "*Digital marketing in community-based enterprises: A systematic literature review and research agenda*" in his/her doctoral dissertation titled "*Social media marketing for sustainability of community-based tourism enterprises in Vietnam*".

Sopron, 20_____ year _____ month _____ day



signature of co-author(s)

CO-AUTHOR'S DECLARATION

(each article must be declared on a separate page)

I/We, the undersigned **Dr. Németh Nikoletta PhD and Dr. Md. Sadrul Islam Sarker** co-author(s) agree that **Tran Thi Thuy Sinh** doctoral student **may use the results of the joint publication** titled *“Developing a perspective on the functions of marketing in the contents of sustainable tourism: a bibliometric analysis”* in his/her doctoral dissertation titled *“Social media marketing for sustainability of community-based tourism enterprises in Vietnam”*.

Sopron, 20____ year _____ month _____ day



signature of co-author(s)

CO-AUTHOR'S DECLARATION

(each article must be declared on a separate page)

I/We, the undersigned **Dr. Németh Nikoletta PhD, Dr. Pham Thai Thuy and Nguyen Nhat Anh** co-author(s) agree that **Tran Thi Thuy Sinh** doctoral student **may use the results of the joint publication** titled *“Impact of COVID-19 pandemic on tourism sector in Vietnam”* in his/her doctoral dissertation titled *“Social media marketing for sustainability of community-based tourism enterprises in Vietnam”*.

Sopron, 20____ year _____ month _____ day



signature of co-author(s)

CO-AUTHOR'S DECLARATION

(each article must be declared on a separate page)

I/We, the undersigned **Dr. Németh Nikoletta PhD, Dr. Md. Sadrul Islam Sarker and Nguyen Nhat Anh** co-author(s) agree that **Tran Thi Thuy Sinh** doctoral student **may use the results of the joint publication** titled *“Past, Present, and Future Viewpoints on the Sustainability of Community-Based Tourism: A Bibliometric Study in Southeast Asia”* in his/her doctoral dissertation titled *“Social media marketing for sustainability of community-based tourism enterprises in Vietnam”*.

Sopron, 20____ year _____ month _____ day



signature of co-author(s)

Appendix 6: Acknowledgements

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