

Perception of small tourism enterprises in Lao PDR regarding social sustainability under the influence of social network

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ABSTRACT

This paper uses a generalized structural equation model (GSEM) to examine the relationships between a social network, the perception of social sustainability, and the future business intentions of small tourism enterprises, in the context of a developing country, Lao PDR. The data were derived from 177 such enterprises located in two destinations in 2016. Initiatives in building social networks and the provision of training and employment of local residents are identified as the key determinants of success in social sustainability, while specific attempts to create brands congruent with local culture are also important. Undifferentiated policies, while useful to the business expansion of small tourism enterprises, are less successful in generating local social sustainability.

1. Introduction

In the considerable amount of academic research on tourism, enterprises are typically treated as the “engine” of tourism development (Baggio & Cooper, 2010; Manyara & Jones, 2007). Particularly in developing countries, small-sized enterprises are often the face of the tourism industry (hereafter, these enterprises are called small tourism enterprises: STEs), and they represent the local community to communicate with tourists and local government. These enterprises provide the community underpinnings for entrepreneurship, facilitate information, knowledge sharing and innovation for business development purposes (Baggio & Cooper, 2010; Wanhill, 2000), and create job opportunities, thus contributing to poverty alleviation (Medina-Muñoz, Medina-Muñoz, & Gutiérrez-Pérez, 2016; Zhao & Ritchie, 2007).

To achieve indigenous development, STEs can play an important role in the process of regional convergence (Nilsson, Petersen, & Wanhill, 2005). STEs can play more roles in sustainable development; however, since they often have limited budgets and operate their business alone, making them unable to contribute to sustainable tourism development financially, particularly in remote areas (Halme, 2001; Scott, Baggio, & Cooper, 2008). Such embarrassing situations may push STEs to overlook sustainability issues, suggesting the necessity of external supports to encourage their actions toward sustainable development. In general, individual decision-making is a cognitive process informed by perceptions and beliefs based on available information (Ben-Akiva et al., 1999). In other words, perception is an instrument to facilitate the cognitive process for producing a choice.

Being small and local, STEs are often run by individual operators. Thus, to better understand STEs' involvement in sustainable development, focusing on perception is crucial. To date, existing studies have minimally explored STEs' perceptions regarding sustainable tourism. Sustainable tourism development needs to involve various stakeholders. Without a better understanding of how tourism is perceived by stakeholders who live in, use, and/or manage local resources, there is a risk that sustainable tourism will not occur (Hardy & Beeton, 2001).

Because of the rapid development of information and communication technologies and the growth in the global tourism market, communications between different stakeholders have become much easier and more active than previously. Tourists can directly communicate with tourism operators before or after visiting, and government can better provide guidance for enterprises. Tourism enterprises are at the frontline of the tourism industry to connect all other stakeholders to form a social network for their business operation (Dredge, 2006). In particular, STEs are the representatives of local culture and the implementers of tourism policies. Social networks enable STEs to share resources and information and engage in cooperative actions for mutual benefits (Saxena & Ilbery, 2008). The central role of STEs in destination development and its cooperation with other stakeholders have been confirmed through network analysis (Cooper, Scott, & Baggio, 2009; Nogueira & Pinho, 2015; Saxena, 2005; Tinsley & Lynch, 2001).

A literature review suggests that how social networks may affect the social sustainability of STEs remains an underdeveloped field. Existing studies on network analysis in the tourism literature have further neglected the view of disadvantaged areas, which are far from the popular

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tourism market. This study presents a unique case study by illuminating STEs' engagement in public-private networking towards sustainability. STEs need to utilize various social capitals for operation their business, where social network is expected to play a key role; however, the role of social network in sustainable tourism development in the context of developing countries has been largely ignored in the literature. Values added by the networking within various stakeholders in terms of affecting STEs' perceptions about social sustainability could become the mediate factors to influence STEs' future intention in business operation (Halme & Fadeeva, 2000).

In developing countries such as Lao People's Democratic Republic (Lao PDR), which is targeted in this study, tourism in Lao PDR is playing not only an economic role in reducing poverty and promoting national development but also a social/cultural role in enabling tourists to focus on the ethnic minority and traditional cultures of Lao PDR (Harrison & Schipani, 2007). However, the effects of sustainable tourism in Lao have not been well examined in the literature, particularly from an STE perspective. In 2016, the number of tourism enterprises in Lao PDR grew to 6331 (Ministry of Information, Culture and Tourism in Lao PDR, 2016): most are STEs, which are also the case for other Southeast Asian countries (Muzaini, 2006). Considering the importance of STEs in promoting local economy growth and regional development in developing countries, it is important to determine how to encourage them to achieve sustainable tourism development in a changing environment is important. Nevertheless, studies on STEs in the context of developing countries are very limited. Lao PDR was chosen for its special characteristics and common features compared to other Southeast countries. With similar tourism resources, tourism revenue in Lao PDR¹ is lower than other Southeast Asian countries, such as Vietnam, Cambodia, and Myanmar. The literature on sustainable tourism in Lao PDR is very limited. In this regard, it is important to implement the current study to provide empirical insights (negative (e.g., barriers) and/or positive (e.g., success)) into both enterprise management and sustainable tourism development for local communities in both Lao PDR and other developing countries.

The purpose of this study is to examine the perception of STEs in developing countries about social sustainability under the influence of social network to derive useful policymaking insights about helping STEs to deploy their businesses beneficially to the local development. In other words, this study explores whether and how the influences of different stakeholders in a social network may influence STEs in Lao PDR to behave more sustainably for their future business operation. Lao PDR is targeted as a case study country.

For the above research objective, this study raises the following research questions to fill the research gaps identified from the literature review.

Q.1. How is STEs' perception of social sustainability influenced by the current relationships with the stakeholders in their social networks?

Q.2. How is STEs' future business intention influenced by the current relationships between with the stakeholders in their social networks?

Q.3. What is the relationship between STEs' perception of social sustainability and future business intention?

To address the above three questions, this study integrated the following two key theories: network centrality (Freeman, Borgatti, & White, 1991) and stakeholder theory (Freeman, 2010; Presenza & Cipollina, 2010). Links between these two theories in the rural context has been minimally explored (e.g., Nogueira & Pinho, 2015). Furthermore, to provide quantitative evidence, this study builds a generalized structural equation model (GSEM) in a sequential manner, by explicitly reflecting features of the data adopted in this study and by accommodating cause-effect structures in a flexible manner.

This study is unique in the following ways. First, this study examines STEs' perceptions about social sustainability, in contrast to traditional focuses on economic and environmental aspects (Ashley, Boyd, & Goodwin, 2000; Imran, Alam, & Beaumont, 2014). Second, this study focuses on the influences of social network on the STEs' perceptions and future intentions in business operations, instead of on the influence of only an individual actor (Cottrell, Van der Duim, Ankersmid, & Kelder, 2004; Poria, Biran, & Reichel, 2006). Third, the context of Lao PDR is emphasized, which has been minimally explored in the literature. Moreover, this study demonstrates the usefulness of generalized structural equation models in tourism research. The research offers an integrated approach to capturing the characteristics of STEs for sustainable tourism development, which is crucial in terms of business support and sustainable tourism destination policy making. The above uniqueness is expected to contribute to the overall literature by various means.

This paper is organized as follows. First, existing studies on social networks and sustainability in the context of STEs are reviewed. Second, the methods used in this study are described, including the conceptual framework, the questionnaire survey, and the analysis approach built based on a generalized structural equation model (GSEM). Third, the characteristics of STEs in Lao PDR are illustrated based on an aggregate analysis. Fourth, GSEM-based modeling analysis results are explained, and findings are summarized. Finally, this study is concluded by discussing the implications of the findings for STE development in Lao PDR and other developing Asian countries.

2. Tourism development and research in Lao PDR

Since the country's first national tourism agenda was published in 1990, tourism has experienced rapid development and become one of the pillar industries in Lao PDR (Harrison & Schipani, 2007). According to Ministry of Information, Culture and Tourism in Lao PDR (2016), both international and domestic tourist arrivals show a substantial increase in the past few years and achieved a peak in 2015 when the numbers of international and domestic tourists were 4.68 million and 2.31 million, respectively. However, in 2016, tourism in Lao PDR decreased by 6.4% in the international market and 14.1% in the domestic market, and the tourism revenue slightly decreased by 0.2%. The decrease in the international market was argued to be a consequence of a sharp contraction in total arrivals from Thailand and Vietnam, both being Lao top source markets.² With the decrease in the tourism market, the number of hotels, guesthouses, resorts, restaurants and entertainment establishments increased by 48%, to 6331. The total contribution of travel and tourism to employment was 397,500 jobs in 2016, which represented 12.4% of the total employment. Thus, the tourism industry in Lao PDR has played a crucial role in the country's economic and social development. However, tourism arrivals and revenue in Lao PDR remain lower than many other Southeast Asian countries. This finding is in part due to unskilled labor forces, homogeneous tourism products, and poor planning of tourism resource usage. Nevertheless, promoting economic development has been highly prioritized as a national development agenda. In 2006, the Lao government issued "Lao PDR Tourism Strategy for 2006–2020" and created five business management programs to strengthen tourism industry, which target managing tourism business in Lao PDR and providing employment for the local community in a systematic and orderly manner.

Related to Lao PDR, there are more references on international tourism than on domestic tourism. The existing studies of Lao tourism mainly focus on the effects of tourism on poverty reduction (Harrison & Schipani, 2007; Hummel, Gujadhur, & Ritsma, 2013; Phommavong & Sörensson, 2014; Phommavong, 2011; Thomas, 2014), intangible and

¹ The World Bank. <https://data.worldbank.org/indicator/ST.INT.ARVL?end=2016&locations=LA-KH-MM-VN&start=2010&view=chart> [Accessed Feb 26, 2018].

² <http://asean.travel/2017/02/04/disappointing-year-2016-lao-tourism/> [Accessed Feb 28, 2018].

tangible heritage management (e.g., fabric heritage in Luang Prabang) (Berliner, 2012; Staiff & Bushell, 2013), and general destination management, particularly in well-known tourism destinations, such as Luang Prabang (Aas, Ladkin, & Fletcher, 2005; Southiseng & Walsh, 2011). Sontikul, Bauer, and Song (2010) explored the attitudes of local residents towards tourism in Lao PDR and confirmed their desires for communicating with tourists.

Recognizing the importance of tourism in Lao PDR in economic growth and social regeneration as well as cultural protection; however, minimal is known regarding the roles of attitudes/perceptions of local residents and business owners in tourism development.

3. Literature review

3.1. Small tourism enterprises (STEs)

STEs are characterized by their small size in terms of operational space, employees, or level of capital investment (Thomas, Shaw, & Page, 2011). Normally, STEs operate on a small scale and are sometimes run by owner–managers with noneconomic motivations. Different regions have different definitions of the scale of small enterprises. One of the most pervasive definitions given by the European Union (2003)³ is that businesses with 50 employees or fewer and €10 million or less turnover are called small businesses. According to the Lao government, small enterprises are those having an annual average of less than 20 employees, total assets below 250 million kip, or an annual turnover below 400 million kip (Ministry of Industry and Commerce in Lao PDR, 2006), which is within the range of the EU definition. In this research, the authors follow the definition of STEs by the Lao government.

For the past decades, STEs have been the subject of considerable research. The definition anchors, assertions and contradictions, research dimensions and research principles of small tourism business are concerned topics (Morrison, Carlsen, & Weber, 2010). Previous studies have researched various issues related to STEs. Examples include: small tourism business networks and destination development (Tinsley & Lynch, 2001), positive and negative effects on indigenous sustainability in local regions of STEs (Irvine & Anderson, 2004; Kamsma & Bras, 2002), service quality and destination competitiveness (Pikkemaat & Peters, 2016), motivations and profiles of STEs (Ateljevic & Doorne, 2000; Goulding, Baum, & Morrison, 2005), and migrant entrepreneurs and their relationship within the host environment (Vaugeois & Rollins, 2007). However, there have been few studies of STEs in developing countries or disadvantaged areas. Furthermore, foreigners from developed countries or economically advantaged areas who open STEs in developing countries have not been examined in a comprehensive manner. How they fit into local policy and competition remains unclear. Many studies on STEs have considered mature tourism destinations and advantaged regions, while in developing countries, particularly in disadvantaged regions, the profiles, motivations, and behaviors of business operators are vague.

3.2. Social network of STEs

Traditionally, a social network has been defined as a specific set of linkages among a defined set of persons, groups and business bodies (Tichy, Tushman, & Fombrun, 1979), such that the characteristics of these linkages may be used to interpret the social behavior of the persons involved, or shared values, visions, ideas, social contacts, financial or commercial exchanges (Serrat, 2017). In the context of tourism, Rhodes (1997) defined a social network by focusing on formal and informal social relationships that shape collaborative actions between

government, industry, and civil society. Such relationships can help to achieve policy goals by facilitating the process of sustainable tourism at the destination level (Saxena, 2005). In tourism, the most common interrelationships are between different stakeholders, representing the government, tourists, the local community, and the tourism industry. Furthermore, based on the nature of relationships and the degree of enterprise cooperation, government planning for local communities can be considered as formal relationships, while daily communication between STEs and neighbors/tourists can be considered as informal relationships. Both of the relationships emphasize collaborations within networks. Social network analysis provides a means of visualizing complex sets of relationships and simplifying them; therefore, it is useful in promoting effective collaborations within a group, supporting critical junctures in networks, and ensuring integration within groups (Cross, Borgatti, & Parker, 2002). STEs contain the following types of social networks (Szarka, 1990).

- Exchange networks: These involve commercial relationships between STEs and their business competitors/partners, and monetary exchange between commercial operators.
- Communication networks: These involve organizations with non-trade links to STEs that provide business information. Examples include: consultants/advisors, local and central governments, and agents with official and semiofficial information flows.
- Normative networks: This refers to personal networks, including relationships with tourists. They can involve owners/managers of STEs befriending tourists in order to obtain feedback on tourism services, tourist information needs, and tourists' attitudes and values.

These network relationships imply that STEs are central to social networks in tourism. In tourism research, social network analysis is commonly used as a diagnostic method for studying the mechanisms of communication and collaboration between members in different groups (Racherla & Hu, 2010).

Tinsley and Lynch (2001) examined the contribution of social networks of STEs to destination development, which has provided theoretical foundations for business network research. Morrison, Lynch, and Johns (2004) confirmed that tourism destination may profit from network collaboration. Dredge (2006) identified the roles of networking in building public-private partnerships and Timur and Getz (2008) argued the importance of the relationships between tourists and service organizations in the context of destination development.

Innovations, knowledge sharing, and collective learning have become the focus of tourism network studies on business operation (Halme, 2001). Pavlovich (2003) used a network theory to illustrate how groupings of small firms can be self-governing, which can assist the destination in building tacit knowledge. Sørensen (2007) found that network participation may improve information sharing, but it was not attributable to foster innovations. McLeod, Vaughan, and Edwards (2010) showed that learning and sharing of information were the outcomes of networking. Paget, Dimanche, and Mounet (2010) examined the innovations of tourism business using an actor-network theory and concluded that the building of new social networks contributes to business growth. In the context of STEs, Braun (2002) indicated that network building is a major new source of competitive advantage and an essential management requirement for STEs.

Van der Zee and Vanneste (2015) presented an extensive review of existing research on social networks in tourism and pointed out that empirical evidence on the benefits of networks in tourism is lacking. In particular, they found that STEs do not actively participate in tourism networks due to a lack of social capital and network skills, and time and monetary constraints.

³ Internal Market, Industry, Entrepreneurship and SMEs, European Commission, http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en [Accessed April 30, 2017].

3.3. Social sustainability of STEs

The research on sustainability in tourism enterprises is mainly concerned with the central issue of how to protect and properly use natural, built, and sociocultural resources, and how to provide benefits to host communities. In developing countries, economic and environmental dimensions are always the first targets of STEs and have been the focus of academic interest until now (Manyara & Jones, 2007; Spenceley & Meyer, 2012). Social sustainability has become an emerging field of urban planning policy and practice related to tourism destinations (Karuppannan & Sivam, 2011; Woodcraft, 2012). The concept of social sustainability is very new in the sustainability debate. In general, social sustainability is a wide-ranging multidimensional concept and is closely linked with sustainable communities, social networks, social equity issues, and social cohesion (Dempsey, Bramley, Power, & Brown, 2011). Social sustainability in tourism from the perspective of STEs relates to not only the consideration of profits but also their contribution to community development and social equity, and building networks (Dahles & Bras, 1999). To take the responsibility for social sustainability, STEs should integrate vulnerable and disadvantaged individuals into an increasingly competitive labor market (Iorgulescu & Răvar, 2015). Local people should be provided the opportunity of human capital accumulation rather than simply be viewed as a factor of production. STEs should also comply with local social and cultural norms, and advocate and create new norms.

The goal of small-sized enterprises is to obtain greater profitability through adoption of intentional sustainable strategies (Fiksel, 2006). STEs are expected to operate their business in a sustainable manner by pursuing both social and economic wealth (Iorgulescu & Răvar, 2015). To meet such an expectation, STEs should adopt scaled-down versions of techniques to engage in sustainability through traditional and standard activities of corporate social responsibility (Morsing & Perrini, 2009). The contributions of STEs to the creation of a sustainable path to economic independency, community empowerment, and designation competitiveness have been discussed through social aspects (Komppula, 2014; Manyara & Jones, 2007). Despite the prevalence of STEs in tourism industries, there is minimal evidence concerning the reasons for, and barriers to, these enterprises being sustainable, not to mention the sustainability perception of STEs and its impact on other business elements. Studies on the connection between STEs and socio-cultural sustainability are noticeably lacking (Roberts & Tribe, 2008).

In contrast to large companies or organizations, STEs are often family-operated and are easily influenced by other STEs and the external environment. Their relationships with STEs and other key stakeholders may influence the perception of STEs about social sustainability. In recognizing the importance of networking and sustainability of STEs, how can an STE establish “proper” awareness concerning sustainable tourism development during its development? Previous studies in tourism research have discussed how individual attributes, owners' values and habits (Best & Thapa, 2013), and knowledge and behavior (Font, Garay, & Jones, 2016) affect the aforementioned STEs' awareness. However, minimal is known about the role of social networks in social sustainability. As a dynamic process of shaping awareness about sustainable tourism development, every relationship could be an external factor, and all relationships should be examined within a unified framework.

3.4. Connection between social network and sustainability

There are many tourism studies on social network; however, minimal can be found from a perspective of sustainable development of tourist destinations (Baggio, 2011). The aim of social networking is to put sustainable tourism development into practice by a variety of alliance and partnerships (Hartman, Hofman, & Stafford, 1999). Halme (2001) investigated learning towards sustainable development in multi-stakeholder public-private networks and found that developing

networks at explicating tacit knowledge among stakeholders could facilitate the creation of sustainability outcomes. Nordin (2003) argued the necessity of developing collaboration and cooperation strategies to gain a sustainable competitive advantage in tourist destinations. Wheeler, Colbert, and Freeman (2003) focused on social responsibility and sustainable development related to the creation of business values using a stakeholder and network approach and presented a navigational tool to assist tourism managers in positioning the relationship between business and society in the context of value creation. Timur and Getz (2008) examined perceptions of critical stakeholders for predicting how the stakeholder relationships may influence sustainable destination development. Moore and Manring (2009) discussed incentives for STEs to optimize sustainability and found that networks of STEs were essential to dealing with sustainable development. Albrecht (2013) summarized a research agenda of networking for sustainable tourism and found substantial progress in research on private sector networks at the destination levels, but limited research on networks involving public sector stakeholders and networks across sectors and levels of governance.

Unfortunately, studies on the connection between social networks and sustainability from a perspective of STEs are limited, and no studies can be found with respect to social sustainability in the context of developing countries.

3.5. Research gaps

To date, the research on STEs in disadvantaged areas has focused mainly on poverty alleviation (Ashley et al., 2000; Manyara & Jones, 2007). Although STEs play a crucial role in economic development in such areas, their contributions to social and cultural sustainability cannot be ignored and are arguably more important from a local perspective. To understand the connection between the perception of STEs about social sustainability and their business intention in the future, the concept of social network becomes relevant; however, there is minimal research on this. Social networks are multifaceted and are difficult to analyze comprehensively. It is also not clear why STEs may act toward social sustainability with the assistance of their social networks, and what kinds of policies encourage the involvement of STEs in the development of local communities from a perspective of social sustainability. All these research gaps are more remarkable in the context of developing countries.

4. Methodology

4.1. Conceptual framework

The literature review suggests important contributions of social networks to STEs' competitiveness and perception of social sustainability in general; however, this is unclear in the context of developing countries.

This paper derives insights from two key theories: network centrality and stakeholder theory. Network centrality theory views a person/group/organization as central in a social network, making the person/group/organization to have access to more information (Freeman et al., 1991). According to stakeholder theory (Freeman, 2010; Presenza & Cipollina, 2010), a stakeholder refers to any group or individual who can affect or be affected by the achievement of organizational goals. Murphy and Murphy (2004) identified four types of tourism stakeholders: consumers, business operator in tourism, residents, and governmental bodies. Regarding STEs under study, there is a dual identity of both business operator in tourism and residents at tourist destinations. Thus, for a given STE, its key stakeholders are its neighbors and other STEs, tourists, and the local government, which control resources critical to the survival of rural tourism (Timur, 2010). The objective of combining the two theories is to provide a thorough set of answers to the three research questions raised in Section 1. As stated

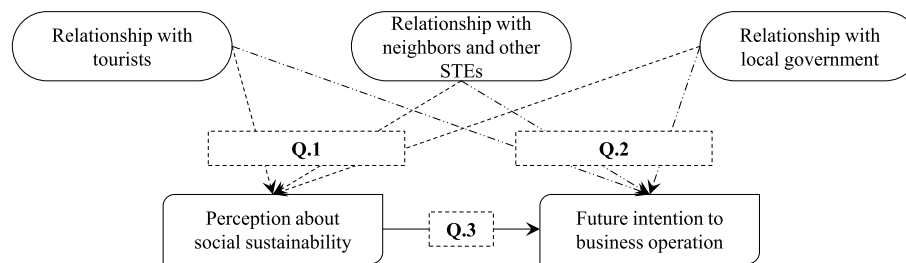


Fig. 1. Cause-effect structure assumed in this study (modified by referring to [Prel, Hubacek, and Reed \(2009\)](#) and [Timur \(2010\)](#)).

by [Nogueira and Pinho \(2015\)](#), the link between network centrality theory and stakeholder theory within a peripheral rural location has been minimally explored. Similarly, minimal is known about stakeholders' perceptions about sustainable tourism.

The relationships of an STE with different members in its social networks may affect the perception and behavior of the STE by different means, due to information flows within its networks, which is influential to knowledge extraction from the networking process ([Braun, 2002](#)). As previously reviewed, social sustainability is important to the development of STEs. Accordingly, this study only focuses on examining the effects of social networks on STEs' perception of social sustainability and their future operation intentions.

To answer the three research questions (Q.1, Q.2, and Q.3) raised in Section 1, this study assumes a cause-effect structure, as shown in [Fig. 1](#). The existing studies found that there were a myriad of factors influencing the decisional process of entrepreneurial attitudes, perceptions and behaviors towards sustainability, such as environmental factors, situational factors, and opportunities ([Byrd & Gustke, 2004](#); [Halme & Fadeeva, 2000](#); [Tomasella, 2015](#)). However, limited research has been performed to investigate the influence of relationships between STEs and their stakeholders on STEs' perceptions and behaviors. [Byrd and Gustke \(2004\)](#) found that the perception of tourism impacts was one of the main predictors for stakeholders' support for sustainable tourism development in their community. Cooperation across various stakeholders is necessary to develop a more sustainable mode of business operation. STEs are at the center to link the various stakeholders in public and private sectors. With the above consideration, this study assumes that the social networks of STEs influence both their perceptions and behaviors towards sustainable tourism in terms of social concerns and that the perceptions about sustainability may become the mediated factors to affect their future business decisions.

4.2. Analysis approach: generalized structural equation model (GSEM)

To quantify the cause-effect structure in [Fig. 1](#), traditionally, it is natural to apply a structural equation modeling (SEM) approach with latent variables, which has been widely applied in the tourism literature ([Hair Jr et al., 2012](#); [Nunkoo & Ramkissoon, 2012](#); [Nunkoo, Ramkissoon, & Gursoy, 2013](#)). SEM assumes responses to be continuous and models to use linear regression; however, these cannot better accommodate different types of data in the model estimation. To overcome this shortcoming, this study applies a generalized SEM (i.e., GSEM) by using the software STATA 13. GSEM can allow for responses to be continuous and for those responses to be binary, ordinal, count, or multinomial. Furthermore, under GSEM, the models can be linear regressions, gamma regressions, logit, probit, ordinal logit/probit, Poisson, and negative binomial. From the estimation perspective, GSEM is a combination of generalized linear model (GLM) estimation ([McCullough & Nelder, 1989](#)) and SEM modeling estimation ([Baum, 2016](#)). GLM estimators are maximum likelihood estimators that are based on a density function in the linear exponential family, including the normal (Gaussian) and inverse Gaussian for continuous data, Poisson and negative binomial for count data, Bernoulli for binary data (including logit and probit), and Gamma for duration data.

4.3. Data collection

4.3.1. Questionnaire design

First, the authors designed a questionnaire (details refer to [Appendix](#)), which contains the five groups of variables in [Fig. 1](#), by integrating insights from existing studies. Detailed question items to measure each group are described below, with major references cited.

G.1. Perception of social sustainability ([Blackstock, White, McCrum, Scott, & Hunter, 2008](#); [Kernel, 2005](#); [Revell & Rutherford, 2003](#); [Roberts & Tribe, 2008](#))

- V.1. Tourism business should respect, protect and advocate the traditional Lao culture.
- V.2. Tourism business should take the responsibility to provide skill training to Laotians.
- V.3. Tourism business should provide more benefits to local people and communities.
- V.4. Tourism businesses should actively participate in community activities.

G.2. Future intention to business operation ([Irvine & Anderson, 2004](#); [Morrison, Breen, & Ali, 2003](#))

- V.5. I would like to expand my business scale in the same region/city/town/village
- V.6. I would like to employ more local people in the future
- V.7. I would like to build my own brand of Lao culture products (for example, Hotel chain, handicraft brand, and restaurants)

G.3. Relationships with tourists ([Braun, 2002](#); [Leung et al., 2012](#))

- V.8. I have pleasant communication with tourists.
- V.9. I can get a lot of information from the tourists.
- V.10. I am happy to make friends with tourists.

G.4. Relationships with neighbors/other STEs ([Karuppannan & Sivam, 2011](#); [Morrison, 2002](#))

- V.11. I try to build cooperation with my neighbor and other operators.
- V.12. I have a good relationship with my neighborhood.

G.5. Relationships with local government ([Dredge, 2006](#); [Erkuş-Öztürk & Eraydin, 2010](#))

- V.13. I can get the information about tourism planning in the region/city/town/village where my business is located from the government.
- V.14. Government actions are beneficial to local development.
- V.15. Government policies help my business in the region/city/town/village where my business is located.

All the above items are measured based on a 5-point scaling method (1. fully disagree, 2. disagree, 3. neutral, 4. agree, and 5. fully agree), as shown in Part II of the questionnaire shown in the [Appendix](#). In the questionnaire, these questions are not clearly grouped with a detailed name for each group; this is to provide respondents with no hints to answering each question by associating with others. Note that there are additional question items in Part II, which are used for other research purposes beyond the scope of this study.

In addition to the above information, Part I of the questionnaire collects basic information about the respondent STEs, their motivations

to operate a tourism business, and a subjective evaluation of their local destinations and business operations. Part III asks respondents to report their working histories and the reasons for any job changes. Part IV requires information on the attributes of respondents and their main household members, including employment status, education level, relationships among household members, and cohabitation status (whether the respondent lives with his/her family members or not).

4.3.2. Survey areas

Case studies are central to most research in humanities and social science as well as in tourism research (e.g., Beeton, 2005; Coviello, 2005; Halinen & Törnroos, 2005). However, existing studies in the context of tourism research have focused less on disadvantaged areas. This study selected two tourist destinations in Lao PDR: Luang Prabang and Pakse.

Seeking tourism information on Lao's official tourism website and major international tourism platforms on Lao tourism (e.g., TripAdvisor and Lonely Planet), the authors found that the tourism market in Luang Prabang and Pakse has presented an image of rural tourism to tourists, created using local cultural and natural resources under the national tourism slogan 'Simply Beautiful'. Luang Prabang and Pakse are the capital cities of Luang Prabang province and Champasack province, respectively, which are the most important provinces in northern and southern Lao. However, there are stark differences across and within provinces, particularly between north and south (Harrison & Schipani, 2009). Both provide important links to neighboring countries. Luang Prabang was selected as a world heritage site by United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1995, and it is also known for the multi-ethnic groups living in the region and for the scenic mountains situated around the town. With the increasing numbers of tourists in Lao PDR, Luang Prabang was chosen for its tourism highlights⁴ or as the most popular tourist destination⁵ in Lao PDR by social media and has been the focus of several academic studies related to heritage tourism development (Morimoto, 2005; Staiff & Bushell, 2013; Sontikul & Jachna, 2013). Compared with Luang Prabang, Pakse is a less known tourist destination. Pakse was founded by the French as an administrative outpost in 1905 and was formerly the capital of the Lao Kingdom of Champasack until 1946. Vat Phou and its associated ancient settlements, selected as another world heritage site in Lao PDR by UNESCO in 2001, are located close to Pakse and have been growing in popularity as a tourist destination. As the country's main tourist destination, Luang Prabang has more tourism enterprises and visitors than Pakse, particularly in terms of the number of guest houses (GH) and restaurants (see Table 1). Therefore, the two destinations targeted in this study, a relatively developed tourism destination (Luang Prabang) and a developing tourism destination (Pakse), jointly cover the range of tourism destinations available in Lao. According to Southiseng and Walsh (2011), small-scaled enterprises represent 79% of the Lao economy.

Before implementing the full-scale questionnaire survey, the authors first conducted a pilot survey in both areas in August 2016, accompanied by a well-trained master course student from Lao PDR who studied in the authors' lab. Based on the pilot survey, the authors finalized the design of the questionnaire (see Appendix) and implemented the full-scale survey from October 3, 2016 to November 3, 2016. The first author of this study served as the survey administrator and the aforementioned Laotian student (who translated the original English questionnaire into the Laotian language) as her assistant, who further recruited and trained several local people as interviewers at each destination. These interviewers (including the Laotian student)

⁴ Laos Backpacking Guide, Indie Traveller. <https://www.indietraveller.co/laos-travel-guide/> [Accessed Feb 12th, 2018].

⁵ Trip advisor. <https://www.tripadvisor.com/Tourism-g293949-Laos-Vacations.html> [Accessed Feb 12th, 2018].

randomly contacted different types of STEs in Luang Prabang and Pakse and conducted face-to-face interviews of the owners of the STEs contacted.

Consequently, valid questionnaires were collected from 177 STEs, of which 34 were foreign STEs, and 143 were domestic STEs. Thus, the collected 177 STEs represent 15.3% of the total tourism enterprises (note: not all tourism enterprises are STEs).

4.3.3. Sample size

As described above, the GSEM will be used in this study. As stated in a book on the structural equation model (Wang & Wang, 2012), there is no consensus on how many samples should be used to estimate a structural equation model; however, usually, 100–150 is considered the minimum sample size. One more major cited rule is that the minimum sample size should be larger than $k(k+1)/2$ observations, where k is the number of variables (Jöreskog & Sörbom, 1989). Mitchell (1993) suggests that, as the rule of thumb, the minimum sample size should be at least 10 to 20 times as many cases as variables, and Stevens (1996) suggests similarly: at least 15 cases per variable.

Nevertheless, it is better to use more samples to derive more general conclusions. In this specific case study, the target country is Lao PDR. To the best of the authors' knowledge, this is the first study in the literature on the behavior/perception of tourism enterprises in Lao PDR. As shown in Table 1, there were a total of 1158 enterprises in the two target regions: Luang Prabang and Champasack. To guarantee the data quality, the authors implemented a face-to-face interview survey; consequently, the authors could not contact all these firms. Nevertheless, the 177 samples mean that the proportion of the collected samples in the overall tourism enterprises is 15.3%, which is a modest rate. As described later, several GSEM models were estimated, where the maximum number of variables is 10. Thus, considering both the recommendations in existing studies and the population size of STEs in the target regions, the 177 samples are acceptable for this analysis.

4.3.4. Characteristics of samples

Before analyzing the results of the GSEM estimation, characteristics of the respondents are summarized in Table 2.

It is observed that most of the STEs are retailing businesses (35.0%), catering businesses (30.5%), or accommodation businesses (26.6%). On average, six Lao employees and fewer than one foreigner are working for the STEs. Among all the respondents, 45.5% are aged 25–44 years, and 41.5% are aged 45–64 years; the most common education level is junior college (39.8%), followed by high school (34.1%) and university or above (11.9%). In addition, 57.4% are male. Furthermore, 80.8% of the STEs are owned by Laotians, 12.4% by foreign owners, and 6.8% by both locals and foreigners. Because the last category of ownership is very small, in the following comparison, the authors classify this as foreign owners. Although the average operation time is greater than 10 years, the average annual income is only 7454.8 US dollars.

5. Modeling analysis results and discussion

Because of the limited sample size, it is difficult to build a traditional SEM model by introducing five latent variables associated with the five groups of observed variables. It is also not possible to separate the model estimation with respect to domestic STEs and international STEs. Furthermore, to capture the cause-effect structure in Fig. 1 properly, it is important to reflect the features of data used in the modeling process. All variables representing the five groups of observed variables are measured based on a 5-point scaling method. With the above considerations, GSEM is applied. Specifically, this study conducts an ordinal logit analysis on each observed variable included in Fig. 1. Consequently, this study estimates a simultaneous-equation ordinal logit model within the general GSEM framework.

Since the three research questions may have different answers by considering how the STEs under study perceive different stakeholders,

Table 1
Number of tourism enterprises in Champasack and Luang Prabang (2015, 2016) (Ministry of Information, Culture and Tourism in Lao PDR, 2016).

	Hotel		GH, resorts		Restaurant		Entertainment		Total	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Champasack	62	59	170	229	33	40	10	10	275	338
Luang Prabang	61	49	238	287	289	457	3	27	591	820

Table 2
The characteristics of the sampled STEs in Lao PDR for this study.

Individual characteristics	Percentage (%)	
Sex	Male	57.4%
	Female	42.6%
Age	15–24 years old	9.7%
	25–44 years old	45.5%
	45–64 years old	41.5%
	Above 65 years old	3.4%
Education level	Secondary school and lower	11.4%
	High school	34.1%
	Junior college	39.8%
	University or above	11.9%
	No chance to school	2.3%
Average income (USD/year)	7454.8 USD	
Average operation time (till Oct. 2016)	10.7 years	
Average number of employees	Lao employees	6
	Foreign employees	Less than 1
Business type	Catering	30.5%
	Accommodation	26.6%
	Retailing	35.0%
	Others	7.9%
	Lao investment	80.8%
Investment type	Joint investment with foreigners	6.8%
	Foreign investment	12.4%

this study estimates three sets of GSEM, as shown in Fig. 2 – 4. These sets present modeling results focusing on the relationships of STEs with tourists, with neighbors and other STEs, and with the government, respectively.

Note that the GSEM structures in Figs. 2–4 include no latent variable. In other words, only observed variables are included. Thus, each of the three GSEM structures represents a kind of path analysis, which is a special case of SEM.

Table 3
The AIC and BIC values in GSEM and SEM models.

Model	Modeling structure (V.1 – V.15: see the subsection “Questionnaire design”)	GSEM		SEM	
		AIC	BIC	AIC	BIC
Model 1	Fig. 1 focusing on the relationship of STEs with tourists (V.1 – V.7 & V.8 – V.10)	3003	3193	4260	4409
Model 2	Fig. 1 focusing on the relationship of STEs with their neighbors and other STEs (V.1 – V.7 & V.11 – V.12)	2989	3157	3912	4903
Model 3	Fig. 1 focusing on the relationship of STEs with government (V.1 – V.7 & V.13 – V.15)	3042	3233	4364	4514

5.1. The performance of GSEM

To confirm the performance of the GSEM, Table 3 compares the model accuracy (AIC: Akaike's information criterion; BIC: Bayesian information criterion) of the GSEM and that of the SEM, assuming all observed variables to be continuous, and all cause-effect relationships to be linear. Regarding the AIC and BIC, the smaller the values are, the better the goodness of fit. Obviously, all three GSEM models show smaller values of AIC and BIC than the corresponding three SEM models. This finding indicates that the GSEM is superior to the SEM in this case study. Because of the superiority of the GSEM, hereafter, the SEM modeling results will not be explained and discussed.

Comparing Figs. 2–4, only the relationship-related variables are different, and others are the same across the figures. In total, there are 33 parameters introduced in Fig. 2 and 26 in Fig. 3, and 33 in Fig. 4, respectively; among these, the respective numbers of statistically significant parameters are 10 (i.e., 30.3%) in Fig. 2 and 10 (i.e., 38.5%) in Fig. 3, and 9 (i.e., 27.3%) in Fig. 4. For ease of reading, Figs. 2–4 only

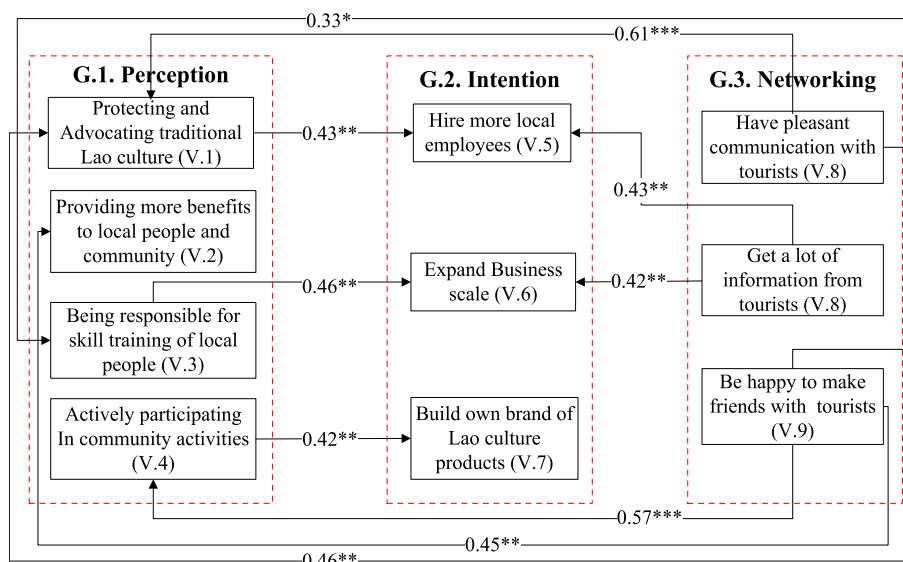


Fig. 2. GSEM results: Effects of the relationship with tourists on perception of social sustainability and future business intention of STEs.

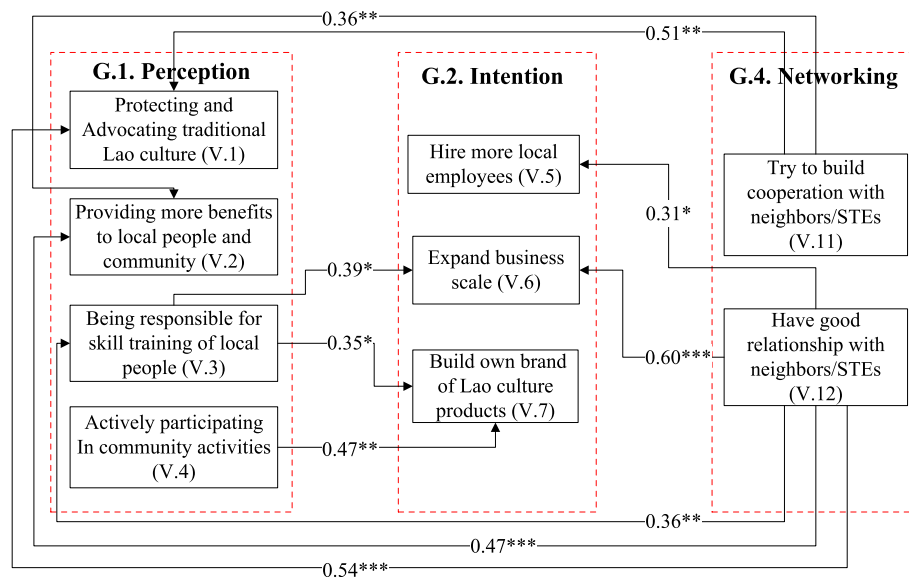


Fig. 3. GSEM results: Effects of the relationship with neighbors/other STEs on perception of social sustainability and future business intention of STEs.

present statistically significant parameters (Note: G.1, G.2, G.3, G.4, and G.5 are defined in Fig. 1; *: significant at the 10% level; **: 5% level; ***: 1% level).

Since an ordinal logit analysis is conducted with respect to each observed variable, each GSEM model estimates the threshold values to distinguish between different Likert scores (1–5). There are several dependent observed variables belonging to the groups of perception of social sustainability and future business intention. Each of the seven dependent variables has one or more statistically significant threshold values at the 5% level (Fig. 2: 14 of 27 threshold values are significant; Figs. 3 and 4: 15 of 27 are significant, respectively).

5.2. Findings: answers to the three research questions

All three sets of modeling results confirm the statistically significant influences of social networks on the perception of social sustainability and future intention in business operations, and perception of social sustainability on future intention in business operation. This finding is because there are one or more statistically significant parameters supporting the three types of influences. This observation presents convincing evidence to answer the three research questions, Q.1, Q.2, and Q.3, raised in Section 1.

Examining Figs. 2–4, the influence of the relationships with neighbors and other STEs is most remarkable in terms of the proportion of statistically significant parameters. This result is understandable, likely because STEs have contacts with their neighbors and other STEs during their daily business operations, which are more frequent than with other stakeholders. The observation that the influence with respect to tourists is more remarkable than to the government may be due to similar contact-related reasons.

5.2.1. Related to Fig. 2

Answers to Q.1: The STEs who pleasantly communicate with tourists are more likely to perceive the importance of protecting/advocating local culture and providing skill training to local people. The happier that STEs make friends with tourists, the more likely they are to perceive the importance of protecting/advocating local culture, enhancing community participation, and providing benefits to local people and communities. However, obtaining information from tourism affects no item related to the perception of social sustainability.

Answers to Q.2: Among the three items related to social network, only obtaining information from tourists is influential to the future business intention. Obtaining information is associated with a higher intention to hire more local people and expand business in the current

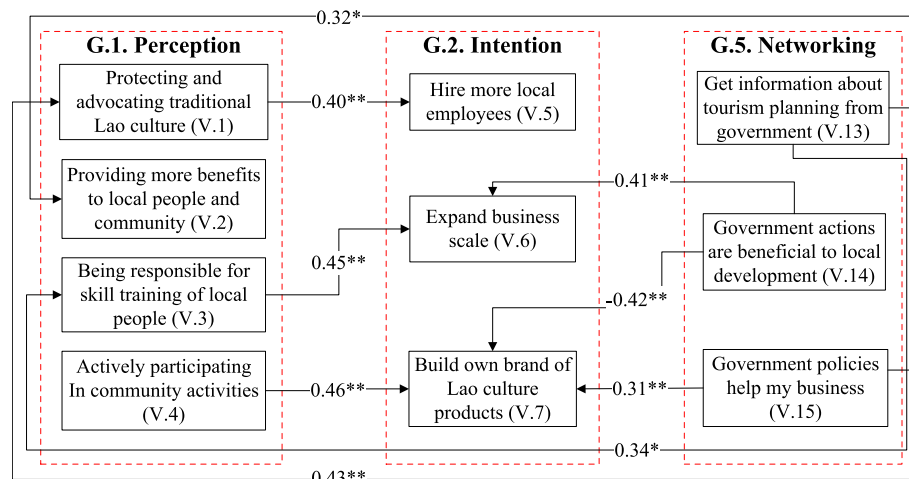


Fig. 4. GSEM results: Effects of the relationship with government on perception of social sustainability and future business intention of STEs.

tourist destinations. Information exchange usually occurs between owners of STEs and tourists through face-to-face conversations and social media. The competitiveness of STEs depends strongly on their understanding of customers' needs. Such understanding can be enhanced by conversations with tourists. However, whether the conversation is pleasant or not and whether STEs are happy to make friends with tourists or not do not affect the future intention of STEs.

Answers to Q.3: The STEs who perceive the importance of protecting/advocating local culture are more likely to hire more local people. The more important the STEs perceive providing skill training to local people to be, the more likely the STEs expand business in the current tourist destinations. The STEs perceiving the importance of enhancing community participation to be higher intend to build their own brands using Laotian culture.

5.2.2. Related to Fig. 3

Answers to Q.1: The STEs attempting to build cooperation with their neighbors and other STEs are more likely to perceive the importance of protecting/advocating local culture and providing benefits to local people and communities. The better the relationships with their neighbors and other STEs are, the more likely the STEs perceive the importance of protecting/advocating local culture and providing benefits to local people and communities as well as providing skill training to local people to be.

Answers to Q.2: Maintaining a good relationship with neighbors and other STEs leads to a stronger intention of an STE to hire more local people and expand business in the current tourist destinations. Attempting to build cooperation with neighbors and other STEs is not influential to the future business intention of the STE.

Answers to Q.3: The STEs who perceive the importance of providing skill training to local people are more likely to expand business in the current tourist destinations and build their own brands using Laotian culture. The intention to build their own brands with Laotian culture is positively associated with a higher perception of the importance of enhancing community participation.

5.2.3. Related to Fig. 4

Answers to Q.1: The STEs who obtain the information from the government regarding tourism planning related to their businesses are more likely to perceive the importance of providing benefits to local people and communities and skill training to local people. If the STEs believe that government policies are helpful to their own businesses, they are more likely to perceive the importance of protecting/advocating local culture.

Answers to Q.2: If the STEs believe that governmental actions are beneficial to local development, they are more likely to expand business in the current tourist destinations but less likely to build their own brands using Laotian culture. The STEs who believe that government policies are helpful to their own businesses are more likely to build their own brands using Laotian culture. In contrast to the authors' expectation, obtaining information from the government does not affect the future intention of STEs.

Answers to Q.3: The STEs who perceive the importance of protecting/advocating local culture have a greater intention to hire more local people. A higher perception of the importance of providing skill training to local people leads to a higher intention to expand the business in the current tourist destinations. The more important the perception of enhancing community participation is, the higher the intention to build their own brands using Laotian culture is.

5.3. Discussion

As shown in Figs. 2–4, G1 and G2 groups of variables show different statistical relationships; Figs. 2 and 4 are different from Fig. 3. This result implies that social networks are surely influential to the relationships between the perception of social sustainability and the

future business intention. Particularly, social networks are influential to how the perception of protecting/advocating local culture affects the future business intention. As a common observation, all three types of networking results in the same significant relationships: from perception of skill training to local people to intention to business expansion, and from perception of enhancing community participation to intention to build own brands. Such an observation may suggest that all three types of networking support the necessity of encouraging STEs to expand their business via skill training of local people and to build their own brands using the Lao culture via community participation. In recent years, the field of service science (Vargo & Lusch, 2008) has observed a clear paradigm shift from goods-dominant logic to service-dominant logic, where value co-creation is the core concept; this argues the importance of involving stakeholders. Thus, the confirmed influences of communication with tourists, neighbors and government and community participation are surely supported by the theory of service science. This observation is also consistent with existing studies such as Halme and Fadeeva (2000) who examined industrial development involving a relatively large number of small-sized actors with very limited resources to pursue sustainable development, and Bramwell and Alletorp (2001), Bramwell and Lane (2005), and Graci (2013) who showed that cross-sector partnerships increase the likelihood of sustainable development outcomes.

In developing countries, direct feedback from customers remains the most useful information/knowledge for improving the business operation of STEs. As shown in this case study, it appears that owners/managers of STEs understand the importance of frequent contact with tourists in their business operations to better reflect tourists' needs and consequently enhance tourists' satisfaction. Such an understanding may be rooted in the mind of the STEs in Lao PDR, although the country remains at a low level of economic development. This finding may reflect the Lao people's hospitality, which is irrelevant to income. As stated by Bredvold and Skälén (2016), opening an STE is not only motivated by achieving commercial goals, it may also be due to lifestyle choices and personal interests. STE owners/managers who are more willing to communicate with tourists may also be more willing to engage in community activities. Contributing to local benefits is not an obligation of any STE; however, voluntary contribution is vital to the sustainable development of local communities.

Associated with the relationship between STEs and local government, undifferentiated policies for tourism development and business operation (indicated by the item 'government actions are beneficial to local development') may provide more business opportunities to standard tourism service providers (e.g., major tourism agencies) than to those rooted in the local community and culture. More tailor-made governmental supports for STEs may be useful to encourage STEs to be involved in sustainable tourism development in terms of brand and image building toward social sustainability in the tourism business, because many STEs in developing countries lack the ability or motivation to accomplish this sustainability task by themselves. At the same time, it may also be necessary to educate STEs to understand the importance of protecting/advocating local culture in developing their own brands to differentiate from other STEs and major service providers. It may also be important to educate STEs on the importance of hiring/training local people to promote/maintain their business identities by involving local communities in a voluntary and continuous manner.

6. Conclusion

Tourism development in developing countries needs focus more on social sustainability through the help of STEs, which are key players for connecting with tourists, local residents, and government. The social networking of STEs is crucial to not only their own business operations but also for local development. In this regard, it is important to better understand the STEs' perception of social sustainability. Using Lao PDR as a case study country, this study has investigated the perception of

STEs regarding social sustainability by explicitly incorporating the influence of a social network and associating with their future business intention. Tourists, neighbors and other STEs, and the government are treated as major stakeholders of a social network. This treatment is done by implementing a questionnaire survey in 2016 among 177 STEs in two tourist destinations (15.3% of the overall tourism enterprises) in Lao PDR: Luang Prabang and Pakse.

This study contributes to the tourism literature, mainly in three ways. First, to the best of the authors' knowledge, this study is the first attempt at collecting enterprise-level tourism data from a social sustainability perspective by targeting small tourism enterprises (STEs) in the context of Lao PDR, a developing country. Second, this study offers an integrated conceptual framework for the research on STEs, which are crucial to sustainable tourism development in developing countries. In particular, this study confirms the sustainability value of the social network for the development of STEs and local communities. Third, applying the GSEM may be the first case in the literature of general tourism research, considering that SEM has been dominating in tourism. This study has demonstrated the usefulness of GSEM to tourism research. The findings with important policy implications can be summarized as follows.

1. Tourists and government in the social network of STEs lead to the same influencing pattern from the perception of social sustainability to the future business intention. This pattern is different from that associated with neighbors and other STEs.
2. The influence of the relationships with neighbors and other STEs on the perception of social sustainability and the future business intention is most remarkable among the three types of stakeholders in the social network of STEs.
3. The influence of a social network of STEs on their business operation toward sustainable development is supported by the theory of service science.
4. Tailor-made policies for STEs are useful to the development of STEs' own business brands with local culture; however, undifferentiated policies work in an opposite manner, although they are useful to the business expansion of STEs.
5. Enhancing the perception of STEs about protecting/advocating local culture and hiring/training local people is important to the development of local communities via their business operations, where information, knowledge, and experience from the stakeholders in their social networks are useful. The goal of sustainable tourism could be achieved by fostering responsible STEs. The various stakeholders can help STEs to gain more knowledge and skills for more successful business operations, including in terms of contributing to social sustainability.
6. Considering that STEs are closely linked to local communities, the findings from this study in the context of a developing country may provide hints to the tourism development, including in developed countries regarding how to involve STEs to provide more benefits to local communities, by focusing more on their connections with and attachment to local communities.

Finally, the limitations of this research and further research are discussed. One limitation is the small sample size because of budget limitations and the resulting difficulty in encouraging more participation. It is a costly and lengthy task to interview a large number of STEs in Lao PDR. It was also difficult for certain respondents to answer subjective questions. Considering such difficulties, it may be necessary to add qualitative analyses by conducting in-depth interviews to confirm the findings about STEs. The authors recognize the importance of cultural aspects in tourism research, which may lead to different findings from similar studies in other developing countries. Thus, comparative studies among countries, which is beyond the scope of this study, should be conducted to derive general findings, while country-specific features should not be neglected either. To realize sustainable

tourism, it is important to encourage behavioral changes toward it; this needs more socio-psychological studies. Furthermore, it may also be worth analyzing the international tourism market in the future, particularly in the context of developing countries, such as Lao PDR. In reality, many tourism enterprises are not ready to compete in the international tourism market. For STEs, some may open their business to increase their income in comparison with that from agricultural production. In this regard, the behavior and experience of international tourists may be helpful to provide a better understanding of the tourism market in Lao PDR, where cultural/social exchange and conflicts are essential to local development. All these additional efforts may enable improved strategic tourism planning for Lao PDR and other Southeast Asian countries as well as other developing countries.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.tourman.2018.05.012>.

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