

SUSTAINABLE TOURISM SUPPLY CHAIN MANAGEMENT OF TOUR OPERATOR AND ITS DETERMINANTS: A Case of Thailand

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ABSTRACT

This research aims to measure the awareness and the implementation of tour operators (TOs) regarding to sustainable tourism supply chain management (STSM) and to explore the internal factors of TOs affecting their STSM implementation. The qualitative data obtained from interviewing with stakeholders and quantitative data collected from the survey of 130 tour operators in Chiangmai and Phuket provinces were utilized to answer the research objectives. The results reveal that the tour operators have awareness to STSM and implementation at high and rather high level, respectively, showing that there is an awareness gap. In addition, the study found the statistically significant difference between their awareness and implementation level regarding to STSM, indicating that there is an implementation gap. In addition, the value of profit margin earned is the variable that has significant effect on TOs' STSM performance.

Keyword: Tour Operator, Supply Chain, Sustainable Tourism Development

INTRODUCTION

Tourism industry has played crucial role for Thailand economic development; contribution to job creation, export revenue generation, and the engine of local development. However, it is broadly acknowledged from the tourism development in the past that those gains have normally imposed cost to society in several aspects; for example, environmental erosion and radical change in local community ways of living. Thus, the tourism industry needs thoughtful planning and managing its developments in the ways that win-for-all at all-the-time.

The World Tourism Organization (2001) has defined the sustainable tourism development (STD) as *“Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”* To attain the STD, the collective

participation of all key stakeholders in tourism industry is the essential; the key stakeholders include tourists, tourism attraction organization, tourism service providers, local community, national and local public administration, and tour operator.

With the tourism industry structure, tour operators (TOs) business still plays influential roles (Adriana, 2005) in promoting or ignoring STD to both backward and forward stakeholders in the tourism supply chain (see Figure 1). This influential roles arise from many factors including; (1) asymmetric information between TOs and tourists, then the tourists' demand to the tourism services can be induced or decided by TOs; (2) economies of scale from purchasing tourism related services at a high volume or in the long-term contract, thus the tourists should follow the TOs package option in order to pay at lower price than the choice they might decide by themselves; (3) bargaining power of TOs over the services providers is rather high; because it is convenient, less risky, and more cost-effective for these service providers to reach a numbers of tourist provided by TOs than finding the individual tourists by themselves. From the influence of TOs described above, it can be concluded that TOs is certainly the key player in promoting and mobilizing STD.

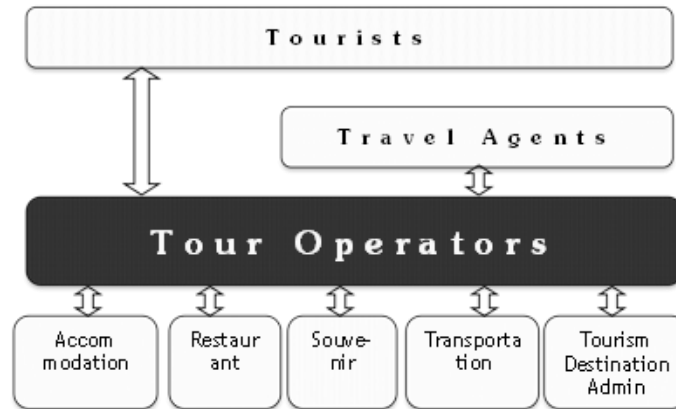


Figure 1 Tour Operator: the Key Player in Tourism Supply Chain

In order to utilize TOs as a vehicle for promoting sustainable tourism development through the tourism supply chain, it is necessary to assess their awareness on their roles and also their current performance in sustainable tourism supply chain management (STSM). Therefore, the aims of this research are (1) to measure the awareness and application of TOs regarding to STSM and; (2) to investigate the internal factor of TOs affecting STSM performance. The research selected Chiangmai and Phuket as the geographical area of study because destinations represent the famous tourism destination of Thailand, in addition their tourism

products are much different (mountainous area with northern culture and beach area with southern culture, respectively), and there are many local tour operator firms located in both area.

LITERATURE REVIEW

Sustainable Tourism

Since the World Commission on Environment and Development (1987) gave the meaning of sustainable development in its report as “a process to meet the needs of the present without compromising the ability of future generations to meet their own needs”, the concept of the sustainable development has been used extensively in almost all branch of development. For example, the World Tourism Organization: WTO (2001) has defined sustainable tourism as “Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”. It can be interpret that this definition emphasizes the balance of tourism development in three dimensions including; 1) current and future development opportunity; 2) economic, social, and environment impacts; 3) the impact to all stakeholders in tourism supply chain.

More recently and specifically, United Nations Environment Program: UNEP (2005), enacted 12 objectives of sustainable tourism development (STD) as following; economic viability, local prosperity, employment quality, social equity, visitor fulfillment, local control, community well-being, cultural richness, physical integrity, biological diversity, resource efficiency, and environmental purity.

Tour Operators and Tourism Sustainability

Weaver and Oppermann (2000) demonstrated that tour operator business is rather seminar to travel agent because they both selling tourism product directly to the tourists, however, while Page (2003) identified that tour operator is different from travel agent in the dimension that tour operator have function to mix the individual tourism services to sell it as a sell it as a tourism product with the price that cover all elements.

Adriana (2005) clearly stated the significant potential of tour operators (TOs) to influence a large number of customers from several reasons including; (a) the majority of international travellers remain using tour operator services; (b) bargaining power over service providers from its large scale and bulk purchasing order; (c) its ability to save time and money for travellers compared with the case that they arrange all elements in tour package by themselves; (d) function of linking or matching the

supply with demand for tourism enable TOs to have superior information and ability to forecast the market trend.

The emerging of Tour Operators' Initiative (TOI) is an empirical evidence representing the awareness of the leading TO firms that have clear strategy and action in promoting sustainable development (TOI, 2003). The TOI has progressively executed their effort to promote the capacity building, the engagement of tour operators to the sustainable tourism development (UNEP, 2005), the knowledge transfer from best practice to other TOs (TOI, 2003), and the improvement in tourism supply chain management according to the concept of sustainable development (TOI, 2004) (Schwartz et al, 2008).

Tour Operators and Sustainable Tourism Supply Chain Management

A supply chain is described by a forward flow of material and a backward flow of order money and information. It comprises seven main business processes: customer relationship management, customer service management, demand management, order fulfillment, manufacturing flow management, procurement, product development, and commercialization (Cooper, Lambert, & Pagh, 1997). The supply chain management concept was firstly applied to tourism sector with emphasis on distribution channels of tourism and hospitality products.

Zhang, Song, and Huang (2009) proposed framework or issue for analyzing tourism supply chain management corresponding to tourism industry characteristics. The seven related tourism supply chain management issues are demand management, two-party relationships, supply management, inventory management, product development, coordination, and information technology. Moreover, the author also suggested set of financial, operational and overall supply chain management measurements. However, none of them are related to sustainable tourism development.

Focusing on environmental impact from tourism industry and tour operator roles in the tourism supply chain, Adriana (2009) assessed the adoption of environmental supply chain management of eight large European tour operators in three stages; evaluation of drivers, evaluation of strategic response, and implementation strategy. Interestingly, the study concluded that the environmental supply chain management of tour operator is limited by organizational factors and strategic shortsightedness.

However, not only the environmental impact, the tour operator is also expected to responsible for tourism economic and social impacts. Thus, a sustainable supply

chain management (SSCM) framework for tour operators was constructed from the participation of European tour operators and industry stakeholders (Schwartz, Tapper, & Font, 2008). The proposed framework consists of 6 steps; engage business, create a policy for SSCM, integrate SSCM into business, conduct baseline assessment suppliers, prepare and implement and action plan, and monitor and report on progress made. In addition, implementation processes of each step are different for small tour operators are different from the medium and large ones. In empirical studies, Sigala (2008) investigate the role of TUI (large scale tour operator) on sustainable tourism by using supply chain management approach. However, this study divided the stage of adapting sustainable tourism to tourism supply chain different from Schwartz, Tapper, and Font (2008), The 5 stages of supply chain management in this study are; sustainable product design, sustainable procurement, sustainable production, and sustainable delivery-distribution and sustainable reverse logistics.

From the literature above, it is noticeable the study about tour operator performance in managing supply chain to promote STD is limited, especially in the case developing countries. Thus, this study designed to collected data from local tour operators in developing country, Thailand. Moreover, most studies evaluated tour operator roles in STSM by focusing on their internal process rather their action to related supplier. This study accordingly focuses the action of TOs to supplier in order to evaluate of tour operator performance on STSM.

RESEARCH METHODOLOGY

Research Framework

The framework of this research consists of 3 parts as depicted in Fig 2, including TOs' characteristics, the awareness of TOs on STSM and their STSM performance. The awareness and implementation of TOs on STSM are divided into 6 groups of their supplies; including tourist, destination administrator, accommodation provider, food & beverage provider, transportation provider, and souvenir vender.

From the figure, there are two research hypotheses: (1) TOs characteristics affect their STSM implementation; and (2) the awareness level of TOs to STSM is different from their implementation level.

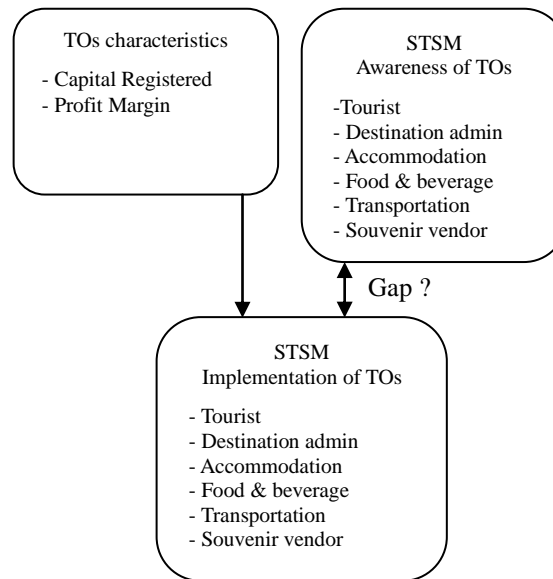


Figure 2 Research Analytical Framework

Population and Sample

The population of this study is tour operators located in Chiangmai and Phuket provinces. Since the population size is unknown because the number of tour operators business registered is not up to date as there are many registered tour operator stop running their business. Therefore this research employed consensus sampling method, sending the questionnaire or interviewing all tour operators operating in the area. The result is that 130 questionnaires were perfectly returned and used to perform quantitative data analysis.

Analytical Methodology

The questionnaire consists of 3 parts; firm information, the awareness level of firm to the STSM to each agent [tourist (5 questions), destination administrator (4 questions), accommodation provider (4 questions), food & beverage provider (4 questions), transportation provider (4 questions)], and souvenir vender (4 questions)] and their implementation to those STSM with those agents (5 scales interval range from 0 to 4).

To attain the research objectives, the data from the survey is analyzed with both descriptive and inferential statistical analysis; including frequency, percentage, arithmetic mean, standard deviation, dependent sample t-test, independent sample t-test and analysis of variance (1-way ANOVA).

In addition, this study also collect the qualitative data from the interviews with key stakeholders of tourism industry in both provinces; including tour operators business, tourism service provider business (hotel, homestay, guesthouse, restaurant, transportation, souvenir shop, and tourism activity providers), community leader, local government agency, and regional government agency. These quantitative data was additionally used to explain the quantitative analysis results and to draw the policy recommendation.

EMPIRICAL RESULTS

Characteristics of Tour Operator Firms in Chiangmai and Phuket

Most tour operator firms in both provinces perform multifunction in their business; including, reserving hotel and air flight (same as the travel agent), develop and selling package tour to group tourist, and selling their own package tour to the individual tourists. The majority of them (91%) are owned by Thai, they mostly have registered capital less than 5 million THB (82%), and employ less than 10 staffs. This implies that most of them are small business enterprise. However, 59% of them have experience of conducting this business more than 5 years. Regarding to the their profitability rate, almost half of them are able to make profit more than 10% from the sale revenue.

STSM Awareness and Performance

The STSM awareness and performance levels of TOs to tourist destination administrator, accommodation provider, food and beverage provider, transportation provider, and souvenir vendor are shown in Figure. 3, Figure. 4, Figure. 5, Figure. 6, Figure.7 and Figure.8 respectively. In general, it can be seen that their overall STSM awareness to each suppliers are at high level while their overall STSM performance to each suppliers are at rather high level.

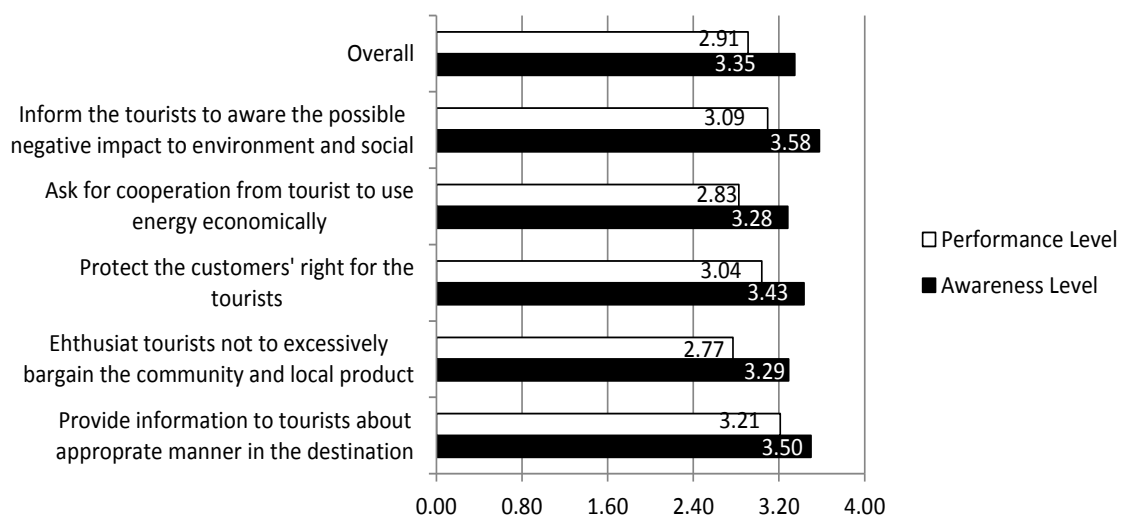


Figure 3 TO's Awareness to STSM and Implementation with Tourist

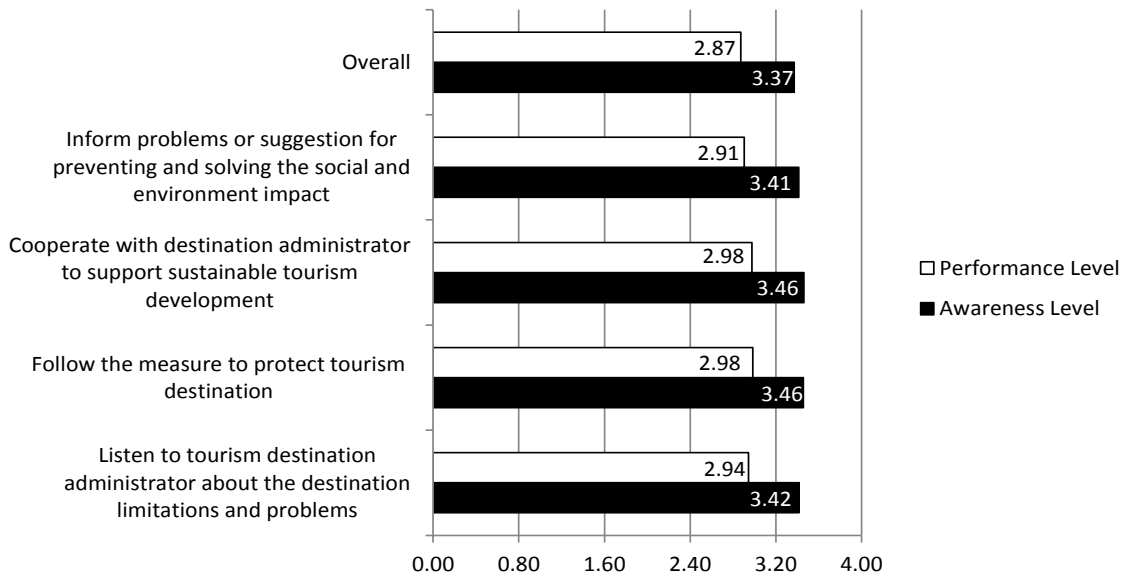


Figure 4 TO's Awareness to STSM and Implementation with Destination Administrator

Among 6 stakeholders in tourism supply chain, destination administrator is the stakeholder in which tour operators have highest level of awareness ($\bar{x} = 3.37$) as well as implementation ($\bar{x} = 2.87$).

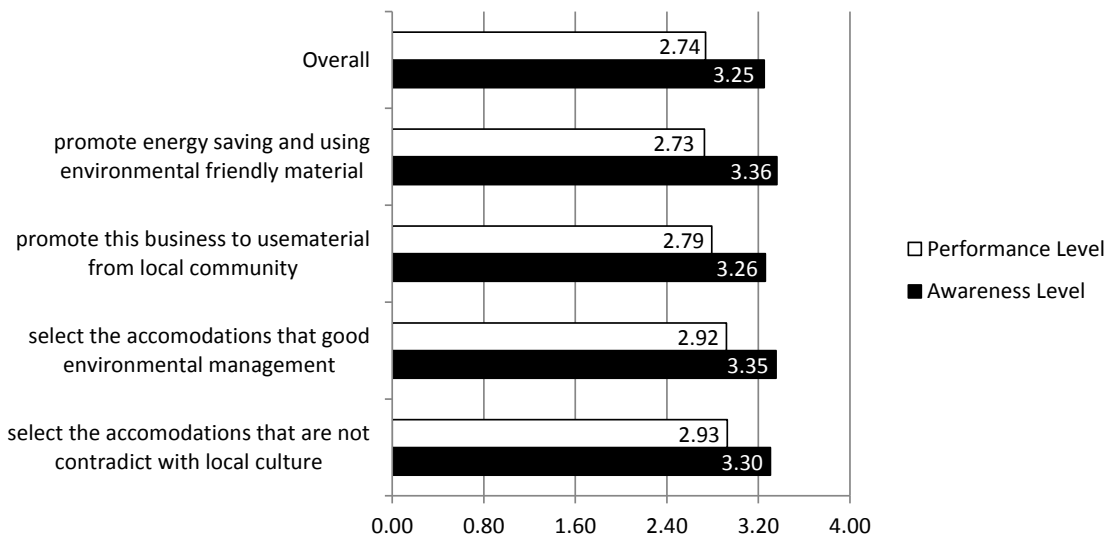


Figure 5 TO's Awareness to STSM and Implementation with Accommodation Provider

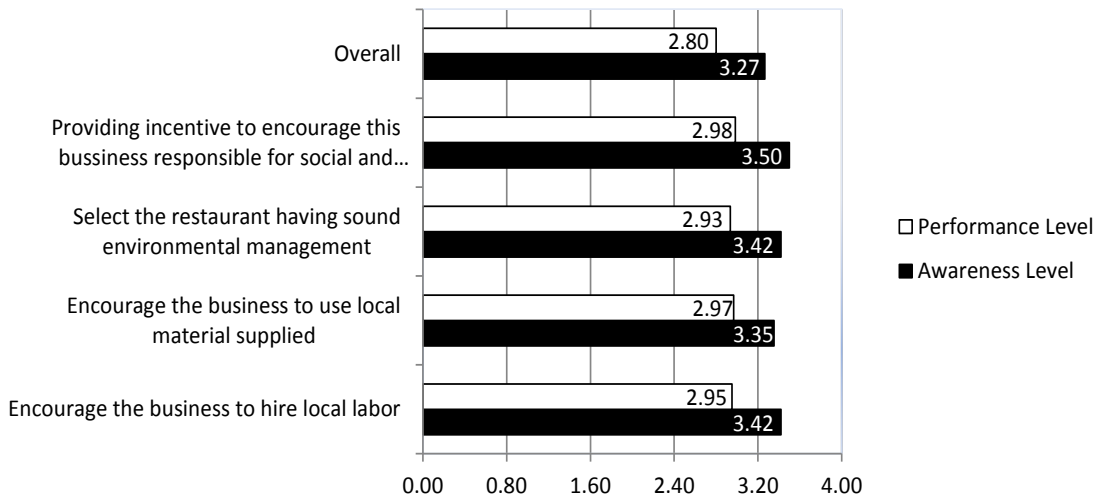


Figure 6 TO's Awareness to STSM and Implementation with Food and Beverage Provider

However, it can be seen that compared to all other agent in tourism supply chain, souvenir vendor is the stakeholder in which tour operators have least level of awareness ($\bar{x} = 3.11$) as well as implementation ($\bar{x} = 2.68$).

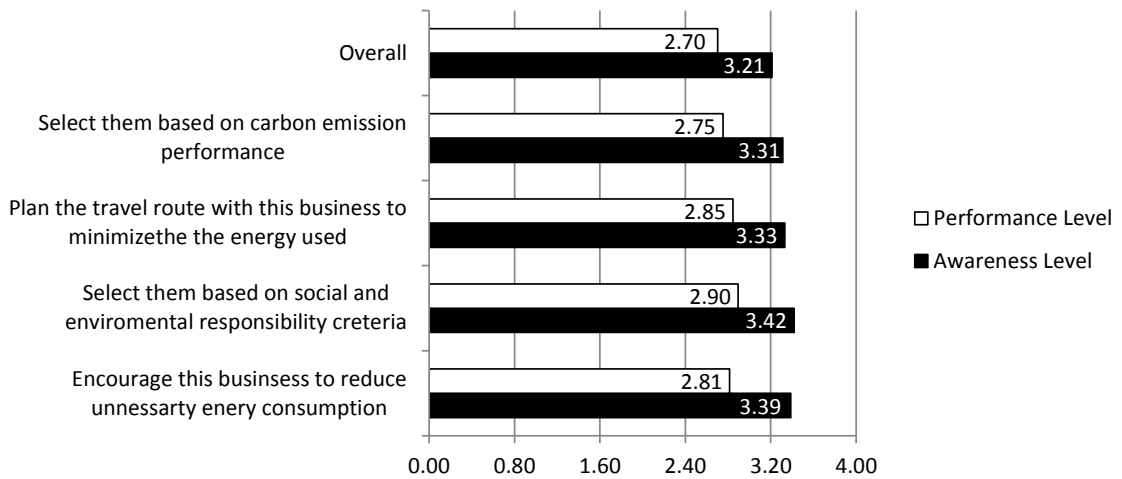


Figure 7 TO's Awareness to STSM and Implementation with Transportation Provider

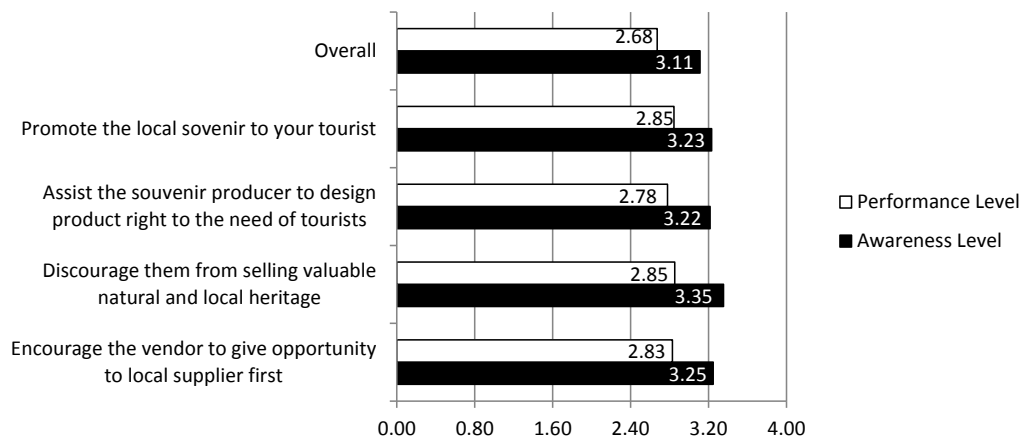


Figure 8 TO's Awareness to STSM and Implementation with Souvenir Vendor

STSM Awareness and Performance Gap

The results of dependent t-test (paired t-test) in Table 1 clearly show the significant difference between awareness and implementation of TOs to STSM in overall and to each stakeholder. Therefore, from this result, it can be concluded that the TOs have awareness gap and implementation gap.

TABLE 1 Hypothesis Testing Results of the Difference between Awareness to STSM and Implementation of TOs

STSM of Tour Operator	Awareness Level	Performance Level	dependent t-test statistics	Significant Value of t-statistics
Tourist	3.35**	2.91	5.99	0.00
Destination administrator	3.37**	2.87	6.12	0.00
Accommodation provider	3.25**	2.74	6.69	0.00
Food & beverage provider	3.27**	2.8	6.23	0.00
Transportation provider	3.21**	2.70	6.80	0.00
Souvenir vender	3.11**	2.68	6.04	0.00
Overall STSM	3.26**	2.78	7.26	0.00

** statistical significance at 0.01

It can be interpreted from the results in Table 1 that there are 2 gap existing among TOs, awareness gap and implementation gap, as shown in Figure 9. The qualitative results from interview suggest that the most significant causes of

awareness gap are lacking of information and understanding according STSM among TOs and the low perception of their important roles in promoting STSM. Although the awareness gap can be closed by raising awareness campaign, the implementation gap is, however, to be closed by capacity building and enabling business environment, including effective regulation.

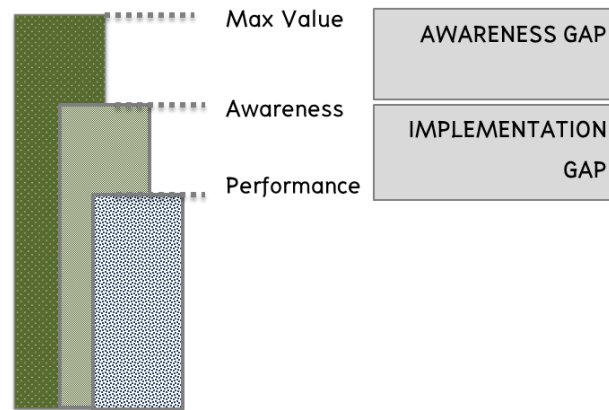


Figure 9 TOs' Awareness and Implementation Gap

STSM Performance Determinants

Capital Registered

From Table 2, it can be seen from the results of the analysis of variance that the size of TOs firm in term of registered capital insignificantly affects their STSM implementation to each stakeholders and in overall. It can be concluded that tour operator with different size in term of registered capital have indifferent level of STSM implementation to each stakeholders.

Table 2 Hypothesis Testing Results of the Effect of Registered Capital on STSM Implementation

STSM of Tour Operator	Statistics	Statistics Value	df1	df2	sig
Tourist	F-test	2.351	2	127	0.099
Destination administrator	F-test	2.620	2	127	0.077
Accommodation provider	F-test	1.568	2	127	0.213
Food & beverage provider	F-test	1.588	2	127	0.208
Transportation provider	F-test	2.367	2	127	0.098
Souvenir vender	F-test	0.397	2	127	0.673
Overall STSM	F-test	1.943	2	127	0.147

Profit Margin

The results in Table 3 indicate that the TOs with different profit margin have significant different level of implementation according to STSM with the tourist. The further analysis for finding the significant difference of STSM implementation between 3 groups of TOs regarding to their profit margin was performed and the results are shown in Table 4.

Table 3 Hypothesis Testing Results of the Effect of Profit Margin on STSM

STSM of Tour Operator	Implementation				
	Statistics	Statistics Value	df1	df2	sig
Tourist	F-test	3.696*	3	126	0.028
Destination administrator	Brown-Forsythe	2.683	2	110.97	0.073
Accommodation provider	F-test	0.284	3	126	0.753
Food & beverage provider	F-test	0.561	3	126	0.572
Transportation provider	F-test	0.122	3	126	0.885
Souvenir vender	F-test	0.599	3	126	0.551
Overall STSM	F-test	0.841	3	126	0.434

* statistical significance at 0.05

As the results shown in Table 4, it can be inferred that the TOs earning profit margin less than 10% significantly have lower level of STSM implementation with tourist compared to the TOs that have earned profit margin 10-20%. These findings reflect that the more TOs implement the STSM approach, the higher value added their tourism product. This because the high value tourist now has more concerned about tourism impact and sustainability and they are willing to pay more for responsible tourism products.

Table 4 The Significant Difference of STSM Implementation with Tourist Among TOs with Different Profit Margin

Profit Margin	not more than 10%	11 – 20%	above 20%
\bar{X}			
STSM of Tour Operator with tourist (tested with LSD)			
not more than 10%	2.69	-0.45* 0.010(-0.34 0.)208(
11-20%	3.14		0.10 0.)221(
above 20%	3.03		

* statistical significance at 0.05

CONCLUSION

This study aims to explore the awareness and implementation of STSM of the tour operators with their stakeholders and to investigate the effect of their internal factors on the application of STSM. The research results reveal that tour operators in the target areas, Chiangmai and Phuket provinces, have level of awareness and implementation regarding to STSM at high and rather high level. However, the STSM implementation level is significantly different from the awareness one. Thus, this finding leads to the conclusion that there are 2 kinds of gap persisting; awareness gap, difference between the current awareness level and the maximum value, and implementation gap, the gap between awareness and implementation level, as depicted in Figure 9. As a result, the public policy to close these 2 gaps is necessary.

In addition, the inferential statistics results confirm the hypothesis that the larger TOs, in term of registered capital amount, have indifferent level of STSM implementation. Interestingly, the findings also demonstrate that the TOs earning higher profit margin significantly implement their STSM with tourist better than the TOs which have lower profit margin. It implies that the TOs having more commitment to STSM with tourist tend to have better business performance.

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