

OPERATIONAL GUIDELINES FOR HUMAN CAPITAL AND INNOVATIVE TOURISM ENTREPRENEURS IN SUSTAINABLE TOURISM PERSPECTIVES: AN ANALYSIS OF TOUR OPERATORS IN THE ANDAMAN PROVINCES OF THAILAND

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Abstract

This research analyzed the performance and innovation of entrepreneurs within the tourism industry. Human capital and service innovation capability were identified as contributing factors to performance. This study employed a mixed-method approach. Qualitative data were obtained via interviews and note-taking from twenty entrepreneurs of southern tour operators in the southern part of Thailand. Quantitative data were collected from 360 administrators among tour operators in the provinces of Phuket, Phang-Nga and Krabi using probability sampling and a systemic random sampling technique. The data obtained were analyzed following descriptive analysis, and structural equation modelling was employed in the analysis of quantitative data. The findings revealed that the confirmatory factor analysis of Human Capital consisted of Social Capital, Entrepreneurship Orientation and Strategic Orientation, while the factors of Service Innovation Capability, involved Service Innovation Ideas, Technology Integration Ability and Business Co-creation Synergy. In addition, it was found that Social Capital, Entrepreneurship, Strategic Orientation and Service Innovation Capability have positive effects on Firm Performance. To achieve sustainable tourism, the entrepreneurs and related parties should seriously focus on strategies for promoting entrepreneurs, networking and innovative tourism policies.

Keywords: sustainable tourism, human capital, service innovation capability

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INTRODUCTION

The Andaman provinces of Thailand have great potential as tourist destinations due to the abundance of natural resources, variety of cultures and traditions, and their unique local lifestyles. Several studies on service innovation in tourism have been conducted in the Chinese context (Li, 2012). Meanwhile, studies on service innovation in Thailand are considered as a new trend for tour operators. In addition, there is still uncertainty regarding the variables related to the environment of the tourism service processes. Therefore, government agencies in Thailand have supported education under "Service Innovation", as knowledge is necessary for the development of entrepreneurial capacity in the tourism industry (Tourism Marketing Strategy Division, 2017).

According to the second National Tourism Development Plan (B.E. 2017-2021), the foundation and several dimensions of tourism development are promoted both in macro- and micro- economics. Regarding tourism personnel, the essence of Strategy 3 included (1) the development of tourism personnel in the whole system to encourage competitiveness to achieve international standards and to correspond to market needs, and (2) encouraging people to participate in tourism management to gain benefits.

These government policies will affect the growth of the tourism industry (Tangchitawattana, 2012). Therefore, a tourism industry which emphasizes the importance of environmental, socio-cultural and economic development and moves with practicable strategies, will definitely be a sustainable one (Tourism Marketing Strategy Division, 2017). Developing the correct strategic direction will avoid the loss of natural resources, expand capability of service, contribute and distribute more benefits to locals, and increase productivity and income (Xin and Chan, 2014).

In order to set clear guidelines for the development of sustainable tourism among tour operators and stakeholders in the three Andaman provinces of Krabi, Phang-Nga and Phuket, this study aimed to investigate the influence of human capital and innovative capability in the performance of tourism service providers in these three provinces. The expected benefits can be used as a guideline to increase the innovation capability of the service and the development of human capital in tour operating businesses. An increase in the performance of tour operations of domestic tours, inbound tours, and outbound tours, could attract more tourists to travel to these destinations, resulting in new job opportunities and sustainable income which, finally will contribute to economic growth.

LITERATURE REVIEW

Human Capitals

Human capital is defined as the knowledge, capability, skills, experience, and expertise that people in an organization have gained, which increases the competitiveness or ability of the organization, and contributes to its competition with competitors (Teixeira et al., 2002). This corresponds with the concept of endogenous growth or organizational growth, which requires the existence of resources within the enterprise organization, and competitive abilities which are likely to rely on personnel who are skillful, knowledgeable and experienced, as well as the dynamic needs of parties within the organizations (Oliveira and Martins, 2011; Teece & et al., 1997).

In addition to the above-mentioned concept and implications of human capital, human capital components are involved in many aspects. However, this study analyzes the concept and meaning of human capital related to or correlated with the innovative abilities of an organization as described in the following section.

Social Capitals

Social capital is important in building an entrepreneurial network in which a group of entrepreneurs living in the same community

collaborate in producing industrial products and services and share the benefits of a tourism business (McGregor and Tweed, 2002; Lu and Peng, 2019). The social capital of a tourism business determines the power structure and cultural relationships embedded within it and the social capital among that specific industry and the related bureaucratic organizations. This empowers collaboration and negotiating power, as well as creating networks with other industries (Okazaki, 2008).

The entrepreneurial network is considered as the core of community economy which encompasses sharing resources, involvement in business competitiveness, and facing similar obstacles and challenges (Subramony et al., 2018). The goal of collaboration as a network is to enhance the productivity of entrepreneurs or related business organizations (Chatterji and Patro, 2014). In other words, the advantages, help, and the exchange of news, attitudes, and experiences will be shared, as well as the collaboration between organizations, for example trade associations, educational institutions, research and development institutions, counseling institutions, and public organizations, who are able to create further innovation and new business via the entrepreneurial network (Liao and Welsch, 2005).

Strong social capital in a country leads to greater opportunities for organizations and other sectors,

which can collaborate, building successful entrepreneurs, as they are able to exchange knowledge of productivity and services. Social capital, through networking dimensions, is clearly the most significant factor affecting the sustainable development of tourism (Jóhannesson et al., 2003).

Entrepreneurship Orientation

Davidsson and Honig (2003) interestingly described the concept of human capital in other aspects of entrepreneurship, noting that any person with a higher level of human capital would be able to seize opportunities and take advantage of others, to establish business enterprises and become successful entrepreneurs. Lumpkin and Dess (2005) mentioned that one of the key factors of entrepreneurship orientation that influenced organizational innovativeness was competitive aggressiveness. Another important factor was tendency toward independent or autonomous action, which implied that organizations should seek more business opportunities (Tajeddini, 2010; Alshanty and Emeagwali, 2019).

As entrepreneurs aim to enhance their productivity and sustain their businesses, they boost all successful business factors in order to achieve this goal. Therefore, entrepreneurs are considered as the main actor in promoting tourism sustainability, by creating knowledge networks and developing management systems in the tourism industry (Sardianou et al., 2016).

Strategic Orientation

Strategic orientation covers the scope and responsibility of goals not only to focus on the necessity of planning but also the practical guideline of organizations in the short, medium, and long term (Adams et al., 2019). Strategic orientation will identify the significance and necessity of processes and tasks, taking control of working possibilities rather than resolving the conditional changes in environments; this will become the goal or motivation for all practitioners (Mile & Snow 1988; Nicolau and Santa-María, 2013). Entrepreneurs must depend on the building of necessary resources and capabilities along with effective strategies and the understanding of practitioners (Daniel and Wilson, 2003; Teece, 2014). Any enhancement approach must focus on processing to build new capacities by integrating previous resources of the organization which correspond with entrepreneurship development in order to compete with competitors. Polnyotee and Thadaniti (2015) stated that this strategy was essential for sustaining and developing the tourism industry in Phuket, Thailand, to become a sustainable world-class destination for visitors. Strategies for tourism sustainability involve, but are not limited to, enabling the participation of local people, studying the carrying capacity of the area, managing waste disposal, raising the quality of life, building community management organizations, fostering cultural

exchange, creating jobs in tourism and raising the income of local people.

Human capital visions result in value building regarding the human resources of an organization, which in turn leads to organizational success and a competitive advantage. Nevertheless, to achieve a vision of human capital, it is necessary to begin a movement throughout the strategic factors, given the capability of making profits and increasing the organization firms (Iwanoto & Takahashi, 2014).

Service Innovation Capability

In service industries, service innovation is identified as a new or empirical improvement in the service concept, customer interaction channels, service system delivery, and technological concepts (Ark, et al., 2003). Damanpour et al., (2009) mentioned that service innovation was the presentation of new services to new or current customers and represents an existing service to new customers.

If an organization has innovative service capacity, it will bring a competitive advantage resulting in higher efficiency and better performance (Alvarez and Barney, 2001; Lütjen et al., 2019). Such a capacity fosters the sustainability of tourism as innovation motivates the industry in sustainable directions (Ali and Frew, 2014). Service Innovation

Capability in this research focuses on the following three issues:

(1) Service Innovation Idea is the presentation of ideas and methods regarding the development of new services. This initiative involves the creation of hard links to new ideas, including ideas leading to innovation in services. It also means exploitative innovation strategy and explorative innovation strategy to learn from the business or organization to operate with the new (Morgan and Berthon, 2008). (Morgan and Berthon, 2008). It also means Aqua and the skills needed to learn for the business or organization to operate with the new (Morgan and Berthon, 2008).

(2) Technology Integration Ability, refers to the integration of technology into the business, making changes both inside and outside of the organization, such as new operations, Standards of Quality, Changing supply patterns of the market, and publicity, resulting in bringing energy to services in order to meet customer needs (Leonardi, 2008).

(3) Business Co-creation Synergy refers to the formation of new forms of business partnerships to create an innovative network. Innovative services create new values where tour operators join with other tourism industries resulting in better cooperation within the industry and the ability to present a valuable co-creation to customers (Chesbrough, 2003).

Firm Performance

Measuring the success or results of the operations of an organization cannot be evaluated from the perspective of finances alone. Successful organizations must evaluate their performance in several dimensions as measurements of the financial condition are only short-term representations. This corresponds with the Balanced Scorecard (BSC) measurement where four perspectives (financial, customers, operation and organizational) must be considered, instead of solely the financial aspects. In fact, the effectiveness of an organization could be measured by its capability to sustainably survive which would reflect the effectiveness of handling the quality of its products or services.

In terms of sustainability, it is not only the survival capability of the organization, but also the performance of the organization in various dimensions which are important, evaluation should focus on various aspects, such as customer satisfaction, ethical and conduct codes, and employee commitment under the perspective of customers, technology, quality of staff, etc. (Parrett, 2006). Focusing on sustainability, successful organizations are likely to depend on survival factors which are related to long term outcomes rather than business profits which only reflect short-term outcomes of firm performance.

Tour Operators and Sustainable Tourism Perspective

Tour operators play a significant role in handling and promoting sustainable tourism development, as they play a central distribution role directing tourists to certain destinations and suppliers (Sigala, 2008). Although the industry involves many stakeholders, such as government, tourists, and other businesses, the roles and responsibilities of tour operators are the essence of sustainable tourism practice (Xin and Chan, 2014). In other words, tour operator entrepreneurs must follow professional standards, composed of quality standards for working practices within the organization, tour operating management, and the ethics of the profession. These professional standards are acknowledged and announced by the Ministry of Tourism and Sports. This reflects the interwoven relationships between various effects and the sustainable development of tourism (Tourism Marketing Strategy Division, 2017).

The first step towards achievement of sustainable tour operating business development is the implementation of a suitable tourism public policy. The correct strategies of tour operating business will deter the loss of natural resources, e.g. waste management, landscape and biodiversity protection, and improvement of infrastructure. These strategies can be achieved through the power of networking, where all tourism

stakeholders are aware and participate to take action. The awareness of responsible tourism practices can be created by adopting technology to integrate information and expand channels of communication. Tour operators are considered as part of the value chain of tourism benefit receivers; they will certainly exert effort more than others, to drive the industry to a sustainable direction (Okazaki, 2008). Tour operators are the intermediary agent of the networks of the stakeholders. Not only do they link tourists to goods and service suppliers, but they also link all the stakeholders in the entire network. Given this specialty, the direction of tourism development can substantially be induced by tour operators (Xin and Chan, 2014).

Related Research

The concept of innovative service is currently receiving attention from the business service sector and can be used as a tool to respond to the values and needs of customers, improve brand image, and lead operations with sustainability (Henard and Szymanski, 2001; Menor et al., 2002; Stevens & Dimitriadis, 2004). The development of service innovation is significant for tourism enterprises and should be considered as a factor for promoting competitive capability.

The studies of Avlonitis and Salavou (2007) and Rhee et al.,

(2009) found relationships between entrepreneurship orientation and innovativeness. Similarly, the study of Tajeddini (2010) revealed that entrepreneurship orientation affected both innovativeness and firm performance.

Dziallas and Blindin (2019) studied factors indicating the innovativeness of small tour operators in Thailand and found six factors promoting organizational innovativeness which were (1) organizational innovations of tour operators, (2) human capital innovations of tour operators, (3) strategic innovations of tour operators, (4) leading innovations of tour operators, (5) thought and creativity innovations of tour operators, and (6) working process innovations of tour operators.

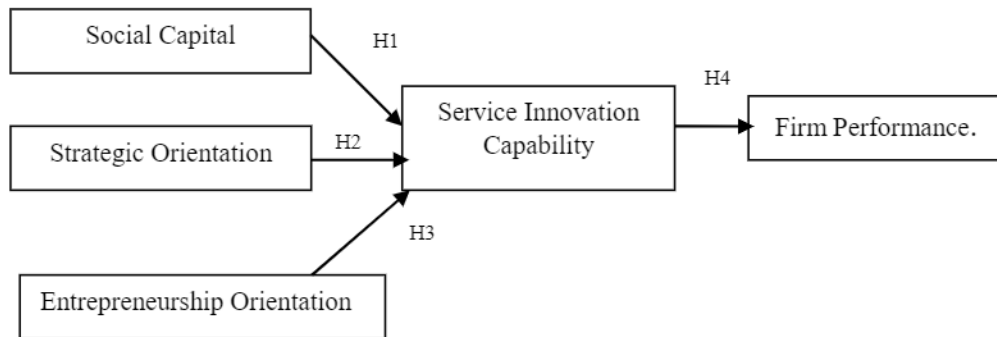
Looking into the view of sustainable tourism, Polnyotee and Thadaniti (2015) proposed that strategies, as one component of human capital, are essential in developing the tourism industry to be sustainably successful.

Rattanapongpinyo (2019) examined the structural equation model of human capital development that affected the competitive advantage of public sector operations in Songkhla province, Thailand. The study found that human capital directly influenced the competitive advantage and the achievement of organizational firms, and that competitive advantage directly influenced the achievement

of organizational firms. As a result, entrepreneurs or administrators of public sector organizations should focus on human capital in all dimensions to lead to success and to provide a competitive advantage

regarding changes in the current economy.

As the literature review previously mentioned, the conceptual framework of the study was generated as followed:



Source: Developed by the researchers (2020)

Figure 1: Research Model

Accordingly, four hypotheses were formulated:

H1: Social Capital directly and positively affects Service Innovation Capability.

H2: Entrepreneurship Orientation directly and positively affects Service Innovation Capability.

H3: Strategic Orientation directly and positively affects Service Innovation Capability.

H4: Service Innovation Capability directly and positively affects Firm Performance.

RESEARCH METHODOLOGY

This mixed-method research was divided into two phases. In the first phase, the qualitative data was collected from twenty entrepreneurs in southern tour operations. Tour operations in this study are defined as businesses certified to operate tours, consisting of domestic tours, inbound tours, and outbound tours. Meanwhile, the entrepreneurs of tour operations refers to the administrators of the business organization who are certified as a legal person/entity to determine the organizational policies.

The entrepreneurs of tour operations in the study were categorized into three groups, comprising eight entrepreneurs of domestic tours, six entrepreneurs of inbound tours, and six entrepreneurs of outbound tours. The sample was selected via a snowball sampling technique in which the sample was introduced among the entrepreneurs of tour operations. In the second phase, the quantitative research determined the appropriate sample size following the basics of Structural Equation Modelling (SEM), that is 10 to 20 times that of the parameters or observed variables (Hair et, al, 2010). Regarding Nevitt and Hancock's (2004) ratio 5:1 to 10:1 for the minimum sample size for the determined parameters, this research which consisted of ten parameters required a sample of at least 50 to 100. Given this, a sample of 360 was

selected through non-probability sampling and was determined to result in a sufficient distribution of the population for each group of tour operations in the southern region.

Variables and Measures

1. Human Capital is associated with the perspective of entrepreneurial factors focusing on the development of sustainable tourism, and consisted of (1) Social Capital, (2) Strategic Orientation, and (3) Entrepreneurship Orientation.

2. Social Capital encompasses the perspective of network building. Within the process of entrepreneurship, the more networks a business organization has, the more advantages it can access. These advantages start from the establishment of the business organization, processes of productivity, and productivity extensions (McGregor and Tweed, 2002; Chatterji and Patro, 2014).

3. Entrepreneurship Orientation focuses on organizational cultures which drive entrepreneurship. Entrepreneurship Orientation is divided into five dimensions consisting of Autonomy Orientation, Innovativeness Orientation, Risk Taking Orientation, Pro-active Orientation and Competitive Aggressiveness Orientation (Lee and Peterson, 2000; Lumpkin and Dess, 1996).

4. Strategic Orientation means to define approaches, ways, and concrete plans for the short term, middle term, and long term, rather

than to solve impromptu problems that dramatically change. This could help the organization to achieve goals and to compete with other organizations effectively (Miles and Snow, 1988; Nicolau and Santa-Maria, 2013).

5. Service Innovation Capability is a capability that is continually processed regarding the knowledge and thoughts related to new products, processes, and systems which lead to the main capacity to sustain a tourism entrepreneurship. In addition, an organization with innovativeness will be given competitive advantages and advanced competitiveness continually. Innovativeness consists of Service Innovation Ideas, Technology Integration Ability, and Business Co-creation Synergy (Morgan and Berthon, 2008; Jarin, 2005; Leonardi, 2008).

6. Firm Performance is the analysis of organizational performance from a sustainable perspective which includes the Financial Perspective, the Customers' Perspective, the Operations Perspective, and the Organizational Perspective (Kaplan and Norton, 1992; Tangen (2005).

Research Tools

This study employed a questionnaire divided into three parts for the collection of data. Part one dealt with the demographics of the sample, written in the form of a check list. Part two consisted of items measuring the level of perception on service innovation capability

provided in the form of a five rank rating scale. Part three dealt with human capital issues: (1) Social Capital, (2) Strategic Orientation, and (3) entrepreneurship orientation, which was also provided in the form of a five rank rating scale.

There were 50 questions, and 10 items with IOC values. Reliability was tested with a sample of 30. The questionnaire areas generally had coefficients of confidence higher than 0.700 (Cronbach's alpha coefficient) as shown in table 1.

RESULTS

In the first phase, the qualitative data was collected via interviews and note-taking with twenty entrepreneurs of southern tour operations. The data obtained were then analyzed following the descriptive analysis. In the second phase of this quantitative data, the questionnaire was employed and Cronbach's alpha coefficients analyzed as shown in Table 1. The reliability results of each construct were between 0.842 and 0.918 following the notions of Nunnally (1978) and Cortina (1993) which state that reliability analysis should score values higher than 0.7. The basic statistical values of the Pearson's correlation coefficient, KMO statistics, and Bartlett's Test statistics for determining the characteristics of respondents were analyzed and processed in SPSS. Validation of the scales for the measurement items are indicated in Table 1, following assessment of the model.

Table 1: The scale assessment

| Construct | Cronbach's Alpha (>0.7) | CR (>0.7) | AVE (>0.5) |
|--------------------------------------|-----------------------------------|---------------------|----------------------|
| Social Capital | 0.842 | 0.94 | 0.54 |
| Strategic Orientation | 0.844 | 0.92 | 0.66 |
| Entrepreneurship Orientation | 0.839 | 0.82 | 0.59 |
| Service Innovation Capability | 0.918 | 0.89 | 0.62 |
| Firm Performance | 0.913 | 0.93 | 0.52 |

Convergent and discriminant validity were employed in the testing of the construct validity for the study (Zapkau, et. al, 2015). Convergent validity was tested through the standardized factor loadings, resulting in significant values above 0.6. This could imply that all items of factor loading values attained convergent validity as they were higher than the 0.4 minimum threshold (Ford, MacCallum, & Tait, 1986). In addition, Fornell and Larcker (1981) criteria were used in examining discriminant validity.

The results found that all the constructs were established with discriminant validity since the AVE square root had greater values compared with the correction values of the corresponding constructs (Hair, Anderson, Tatham, & Black, 1998; Zhang et al., 2017).

In addition, the relationships between several components obtained from the empirical data of tour operations entrepreneurs according to the research hypothesis were also examined by employing

structural equation modelling through reading the analysis from the Pearson's correlation analysis and path analysis in the congeneric measurement model. The statistical values used to check the consistency of the research model and the empirical data were Chi-Square, the Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index - AGFI).

The analysis of causal influences regarding the relationships of the structural equations showed that the variables used in the analysis should have characteristics of a normal distribution. Results of the significance test of skewness and kurtosis using the LISREL program for analysis are shown in Table 2. It was found that social capital, entrepreneurship orientation, strategic orientation, and service innovation capability all influence firm performance with a statistical significance at the level of 0.05. In terms of the data analysis to test the consistency of the model and the empirical data, it was found that they

were consistent and reliable as shown in Table 2.

The Pearson's correlation coefficient analysis was used for all variables; it found that there is a statistically significant linear relationship at the level of 0.01. This indicated that the variables used in the analysis showed a rectilinear relationship between them.

Moreover, the effectiveness of the measurement model considering the Relative Variance (ρC) and the Average Variance Extracted (ρv) was evaluated, determining that the variance of each variable in each component was relatively low ($\rho v > 0.50$) as shown in Table 3.

Table 2: Distribution for analyzing the relationships of variables

| Variables | Skewness | | Kurtosis | | Skewness and Kurtosis | |
|-------------------------------|----------|---------|----------|---------|-----------------------|---------|
| | Z-Score | P-Value | Z-Score | P-Value | Chi-Square | P-Value |
| Social Capital | -2.409 | 0.235 | 1.670 | 0.421 | 0.142 | 0.123 |
| Entrepreneurship Orientation | -3.876 | 0.024 | 1.907 | 0.007 | 1.793 | 0.843 |
| Strategic Orientation | -2.189 | 0.006 | -0.132 | 0.143 | 6.045 | 0.034 |
| Service Innovation Capability | 0.142 | 0.135 | 1.478 | 0.767 | 6.412 | 0.076 |
| Firm Performance | 0.436 | 0.234 | 1.325 | 0.754 | 5.324 | 0.098 |

Table 3: Discriminant validity analysis

| Construct | Cross construct correlation | | | | | | |
|-------------------------------|-----------------------------|----------|----------------|------------------------------|-----------------------|-------------------------------|------------------|
| | ρc | ρv | Social Capital | Entrepreneurship Orientation | Strategic Orientation | Service Innovation Capability | Firm Performance |
| Social Capital | 0.7662 | 0.6419 | 1 | | | | |
| Entrepreneurship Orientation | 0.8892 | 0.7143 | .818** | 1 | | | |
| Strategic Orientation | 0.7914 | 0.6869 | .758** | .752** | 1 | | |
| Service Innovation Capability | 0.7594 | 0.7039 | .500** | .456** | .528** | 1 | |
| Firm Performance | 0.7982 | 0.7243 | .595** | .559** | .627** | .741** | 1 |

**P<0.01

The correlation coefficient analysis of factors between the firm performance and innovativeness were as shown in the Table 3. The description was as follows: Firm Performance and Service Innovation Capability correlated with statistical significance at the level of 0.01 for 74.1 % of the relation, Strategic Orientation and Firm Performance correlated with statistical significance at the level of 0.01 for 62.7% of the relation, while Social Capital and Firm Performance correlated with statistical significance at the 0.01 level for 59.5% of the relation, and Entrepreneurship Orientation and Firm Performance correlated with statistical significance at the level of 0.01 for 55.9% of relation.

To consider the basic terms in analyzing the causal influence of the structural equations as shown above, data were analyzed with the LISREL program. As the analysis of causal influences with latent variables between cognitive capability, absorptive capability, dynamic knowledge management capability, and the strategic intuition capability were revealed, it was found that the model was inconsistent with the empirical data from the early data analysis. The model was then adjusted until it became consistent, and Chi-Square, P-Values, GFI, AGFI, RMSEA and RMR were considered and analyzed as shown in Table 4.

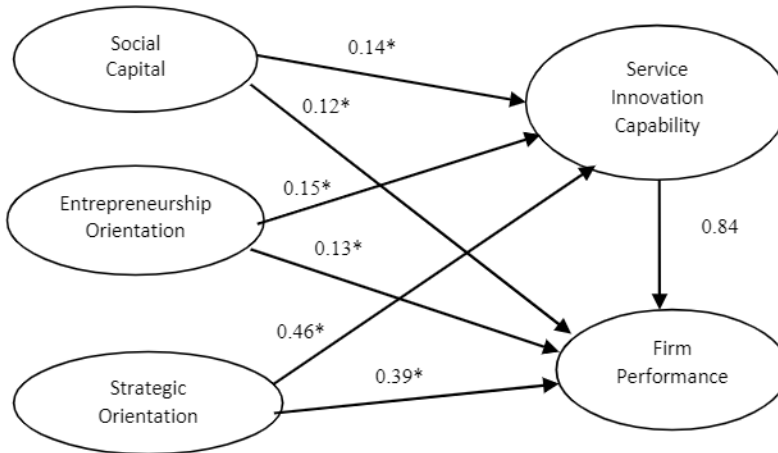
Table 4: The results of analyzing the causal influence of the development of human capital and service innovation capability affecting firm performance

| Dependent Variables | R ² | Influences | Independent Variables | | | | | Firm Performance |
|-------------------------------|----------------|------------|-----------------------|------------------------------|-----------------------|-------------------------------|------------------|------------------|
| | | | Social Capital | Entrepreneurship Orientation | Strategic Orientation | Service Innovation Capability | Firm Performance | |
| Social Capital | 0.57 | DE | - | - | - | 0.14* | 0.12* | |
| | | IE | - | - | - | - | - | |
| | | TE | - | - | - | - | - | |
| Entrepreneurship Orientation | 0.41 | DE | - | - | - | 0.15* | 0.13* | |
| | | IE | - | - | - | - | - | |
| | | TE | - | - | - | - | - | |
| Strategic Orientation | 0.50 | DE | - | - | - | 0.46* | 0.39* | |
| | | IE | - | - | - | - | - | |
| | | TE | - | - | - | - | - | |
| Service Innovation Capability | 0.54 | DE | - | - | - | - | 0.84* | |
| | | IE | - | - | - | - | - | |
| | | TE | - | - | - | - | - | |
| χ^2 | df | P-value | χ^2/df | GFI | AGFI | RMSEA | RMR | |
| 256.83 | 165 | 0.07615 | 1.55 | 0.97 | 0.91 | 0.00 | 0.020 | |

DE = Direct Effect, IE = Indirect Effect, TE = Total Effect, * (P<.05), ** (P<.01)

In Table 3 and 4, the analysis of findings showed that the hypothesis testing results of the Pearson's correlation coefficient of all variables had a statistically significant positive value at a confidence level of 0.01. When analyzing the causal

relationship of all variables, it was found out that all variables showed a level of cause with statistical significance at the 0.01 or 0.05 level as shown in the figure 2.



Chi-square =256.83, df = 165, $\chi^2/df = 1.55$
 NFI =0.96, IFI =0.98, CFI =0.97, GFI = 0.97, AGFI =0.91, RMR = 0.02,
 RMSEA = 0.00
 *P<0.05

Figure 2: The structural model

CONCLUSION AND DISCUSSION

The results of this study revealed the confirmatory factor analysis of Human Capital and Service Innovation Capability. The obtained results were collected from 360 questionnaire submissions. The

Confirmatory Factor Analysis of Human Capital consists of three factors which were Social Capital, Entrepreneurship Orientation and Strategic Orientation, and Service Innovation Capability, consisting of three factors: Innovation Ideas, the ability to merge technological integration, and collaborative

business goods. The results of the confirmatory factor analysis showed that all were at a good level.

Based on the Confirmatory Factor Analysis (CFA), it was found that Human Capital, Service Innovation Capability, and Performance were harmoniously correlated with empirical evidence. This finding uncovered the new knowledge that the human capital development of tour entrepreneurs should consider three factors, namely social capital, strategic orientation, and entrepreneurship orientation. In other words, Human Capital consists of three factors which are Social Capital, Entrepreneurship Orientation, and Strategic Orientation. In terms of Service Innovation Capability, the factors involved were Service Innovation Ideas, Technological Integration Ability, and Business Co-creation Synergy.

As the results revealed, hypothesis 1 was accepted; strategic orientation positively affected service innovation capability. For hypothesis 2, entrepreneurship orientation positively affects service innovation capability, and hypothesis 3, social orientation positively affects service innovation capability, both hypotheses were accepted. These results paralleled the notions and theories of factor analysis found in this study. Human capital in the dimension of social capital went along with the study of Liao and Welsch (2005), and McGregor and

Tweed (2002), which revealed that the strength of human capital is associated with organizations or supporting departments becoming successful entrepreneurs.

In addition, it was found that service innovation capability is related with the outcomes of tour operations in the three Andaman provinces, thus following hypothesis 4: innovative capability positively affects organizational operations. Similar to the indications of Alvarez and Barney (2001), innovative capability requires continuity of change and thoughts which drives new products, processes, and systems, and leads to useful administrative principles among organizations. If an organization has an effective innovative capability, the organization will have a highly competitive advantage leading to organizational achievement. Service innovation idea incorporates the proposal of new ideas and ways to develop new services starting from the initiation of creative thinking as well as different thinking in order to gain new innovative services. It has also been defined as the capability and required learning skills of an organization with new ways of working. Morgan and Berthon (2008) mentioned that business co-creation synergy is the creation of a friendship between businesses with new values and collaboration producing innovations by creating new services suitable with the conditions of operational cycles.

OPERATIONAL GUIDELINES FOR SUSTAINABLE TOURISM PERSPECTIVE

According to the research findings, human capital and service innovation capability played important roles in the performance of tour agencies in the three Andaman provinces. Further steps in the research could include the application of these findings to the sustainable development of tourism enterprises and the tourism industry. In order to maintain and enhance stability and sustainability, there is a necessity that tourism entrepreneurs, government bodies, and other related parties, formulate their goals, strategies, approaches and practices. The mentioned stakeholders should follow the recommendations on the development of human capital and innovativeness which have been summarized into three key approaches as follows:

(1) Human capital for networking perspective

Enhancing productivity and sustainability of the tourism industry by building a tourism network is a great way to share knowledge and gather support (Liao and Welsch, 2005). Furthermore, boosting co-creation tourism campaigns between communities, enterprises and governors ensures that every party is involved in the industry expansion and its upcoming benefits. Additionally, one-way support of many parties can also eventually

encourage development through the entire network, for example, educational support of tourism management from institutions and entrepreneurs, and donations from enterprises and colleges to support research on tourism development. The cooperation from all parties will eventually uplift the quality of local lives and the stability of enterprises (Xin and Chan, 2014; Assaf & Tsionas, 2019). In addition, as ecotourism seems to be a better way toward sustainability, raising awareness of this types of tourism is important. Collaboration from everyone in the society is required to build strong networks to foster ecotourism (Liu, Chang, Horng, Chou, & Huang, 2020).

(2) Human capital for entrepreneurship orientation perspective

Implementation of an innovative tourism public policy is fundamental to sustainable development. The government should be in charge of imposing practical policies and development of infrastructure to provide a great environment for the community. Furthermore, being environmentally-friendly is one of the key concepts for sustainable development. Therefore, goals such as a reduction in transportation or the impacts of transportation, are necessary and can be achieved by supporting environmentally-friendly vehicles (Xin and Chan, 2014). Other strategies, like the promotion of a variety of tourism activities which

attract various types of tourists are also necessary, e.g. sport and adventure, cultural exploration, natural sightseeing and rest & relaxation.

(3) Human capital for strategic orientation perspective

Providing opportunities for entrepreneurs to access information, data and financial resources through increasing the availability of technological advantages to businesses is the first door to enterprise stability. Moreover, as stated by Macbeth et al. (2004), both government and the community play major roles in creating and managing

social capital in the tourism system. Therefore, local governors should develop support schemes, such as skills development and training, to enhance the productivity of human capital in local areas. At the same time, entrepreneurs must innovatively rebuild outmoded operations into modern one in order to gain competitiveness (Rønningen, 2010).

Factors leading to the implementation of innovative workshops for human capital development from the perspective of service innovation capability are explained and described in the table below:

Table 5: Operational Guidelines; Implementing an innovation workshop and Suggestions for sustainable tourism development

| Tour Operators Development Perspective | Innovation Workshop Implementation | Suggestions for Sustainable Tourism Development |
|---|--|--|
| Human Capital | <ul style="list-style-type: none"> • Ability to transfer knowledge of service innovation to young entrepreneurs • Establish standards for product and service innovation to be at an international standard. | <ul style="list-style-type: none"> • Systemic and continuous research in tourism business in order to create a big database • Increasing the tourism management capability in accordance with good governance principles |
| Social Capital | <ul style="list-style-type: none"> • Creating an entrepreneur network for knowledge management in innovation • Exchange of resources for tourism in an open innovation model. | <ul style="list-style-type: none"> • Encouraging entrepreneurs to exchange knowledge and resources between the public and private sectors. • Finding ways to develop entrepreneurial |

| Tour Operators Development Perspective | Innovation Workshop Implementation | Suggestions for Sustainable Tourism Development |
|---|---|--|
| | | communities ready to support growth in the tourism industry |
| Strategic Orientation | <ul style="list-style-type: none"> • Contributing to marketing and publicizing of a positive tourism image for innovative tourism in a modern market. | <ul style="list-style-type: none"> • Adopting tourism business results derived from foreign tourists to determine the provincial strategy. • Creating strategies to encourage and generate domestic travel within the 3 southern Andaman provinces |
| Entrepreneurial Orientation | <ul style="list-style-type: none"> • The ability to change the concept of service innovation into factual service • The ability to access a tourism market information system | <ul style="list-style-type: none"> • Disclosure of registration capital information to group members. • Relationship Analysis between registration capital, and tour business performance in the stock exchange to generate more in-depth information. |

SUGGESTIONS FOR FUTURE RESEARCH

This research examined human capital, service innovative capabilities, and the outcomes of tour operations in the three Andaman provinces, which could be used as guidelines in conducting research associated with business and other public sectors related to the tourism industry, significantly impacting Thailand’s economic growth.

This research focused only on entrepreneurs and sustainable tourism, concerning the internal factors affecting sustainability. However, since the incident of COVID-19 which had recent harmful effects on the Thai tourism industry, future research should therefore focus on examining and analyzing the external factors which could hugely impact the stability of the industry. Risks from external factors might be mitigated by investigating

their structure and influences, and thus finding suitable strategies to cope with such factors.

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