Factor Analysis of Using Social Media in Tourism Enterprises for Competitiveness

Pannee Suanpang

Abstract—Social media is the “mega trend” on the digital platform for connecting, participating, communicating and sharing information among users and being used as a tool to support tourism enterprises to raise efficiency and competitiveness in the tourism industry. The objective of this paper is to analyses the factors that affect the use of social media in tourism enterprises for competitiveness in Thailand. This study has a mix method of a quantitative approach which collected information from a questionnaire of 490 tourism enterprises in five major tourism cities and a qualitative approach which collected data from interviews. The results found that, there were eight factors (provide information, contact customer, marketing, feedback, build network, brand building, increase income and customer engagement) of using social media in tourism enterprises for gain competitiveness. The highest score is provided information ($\bar{\chi}=3.88$, S.D. =1.12), second engaging with customers ($\bar{\chi}=3.69$, S.D. =1.18) and third marketing ($\bar{\chi}=3.68$, S.D. =1.16). The confirmatory factory analysis found that the highest loading factor of build customer network ($b=1.13$), second customer engagement ($b=1.07$), third marketing ($b=1.05$) and finally provide information ($b=0.91$) respectively. Therefore, the variance of use of social media in the tourism enterprises was 84.60%, 75.20% and 81.30% respectively. The statistical significance of the of fitness indices are 20.31, df =14, p-value =0.12081, RMSEA=0.030. Finally, the results of interviews found that social media use in tourism enterprise for providing information, customer engagement and a reduction of business operation costs.

Index Terms—Social media, social network, factor analysis, tourism enterprise, competitiveness.

I. INTRODUCTION

With the advance of technology, ‘social media’ is a new dimension of digital platform that is becoming the most predominant for connecting, participating, communicating and sharing information with other users around the world [1]-[3]. Social media is a “mega trend” that can significant impact business especially tourism enterprises who are using it for advancing business competitiveness [4], [5]. The social media platform allows users to generate and share various types of information including text, photo, video and location of their groups to users including community, business, customer, friends and family organizations. The extensive use of social media sites includes Facebook, YouTube, Linkedin, Instagram, Twitter, Google+, Line, etc. [8]. Social media is becoming an important mechanism for the diving tourism business due to its changing the way tourist are using social media sites to share their tourism experience with other friends on social networking sites which affects tourist motivation [6]-[8]. Social media has been adopted by traveler to search, organize, share, and annotate their travel stories and experience through blogs, online community (e.g., Facebook, Twitter), media sharing (e.g., YouTube), social bookmarking sites (e.g., Delicious) and other tools that are used in a collaborative way [8]. With the advantages of using social media to support businesses leading to the growth of user social media has been exponential over recent years, there are 4.021 billion users around the world, of which the leaders are Facebook, YouTube, WhatsApp and Facebook Messenger respectively [8].

The situation of using social media in Thailand is that the number of users are increasing dramatically, the number of Internet users is 57 million people of which 51 million are SNS users (74%). Surprisingly, Thai people spend 9.38 hours per day using mobile Internet which the highest in the world, they spend on average 3.10 hours per day using SNS and spend 4.3 hours per day for broadcasts, streaming and Video on Demand [9].

The advantage of using social media to support the tourism business includes information searching and decision making behavior [10], [11] tourism promotion [11], [12] and focusing on the interaction of tourist via social media (e.g., social sharing of tourism experience) [11]. Moreover, social media is used to promote tourism products with online strategies [10], [11] to increase tourism revenue for the tourism businesses.

The tourism enterprise on the supply side includes five major business areas including tourist attraction, services, promotion, transportation and information [13] which the tourism enterprise use as a “tool” to develop tourism business transactions. Additionally, using social media in a tourism enterprise can lead to financial, social or political benefits for a tourism service provider [14], [15] who can then understand the factors that affect tourist behavior and can apply this knowledge to manage and use SNS in order to increase their revenue.

Thailand is a world class destination, UNWTO– United Nations World Tourism Organization ranked Thailand 9th in the world, having 32.6 million International tourists in 2017 with a revenue of 1.65 trillion baht that ranked number three in the world [16]. The use of social media for supporting the tourism business in Thailand is growing and becoming important for enterprise to gain the advantage and competitiveness. Therefore, social media is becoming a significant factor to influence decision making for booking accommodation, selecting an airline, sharing tourist comments, building their community and finally creating

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II. LITERATURE REVIEW

A. Social Network Theory

The social media concept was initiated from social network theory. The theory of social networking focuses on the relationship between the node and ties while much of the research in social science is frequently focused on individual characteristics and the behavior of using social network approaches [18], [19]. The social network research in the social sciences are found in sociology, social psychology, information science, and organization management [19], [20]. From the perspective of technology, some issues related to the innovation potential of social network platforms have been promoted [11], [19]. Social network research has yet to be developed fully in recreation, leisure, and tourism studies [19], [21] however, the related concept of using social media in the tourism enterprise has been deployed in tourism literature.

B. Competitiveness of Using Social Media Using in Tourism Enterprises

Social media is used in tourism enterprises to gain competitiveness in many dimensions including:

- Providing information: The major function of social media is used for providing information about products and services directly to the customer [22]-[24] which is becoming a very effective channel, such as using Facebook to provide information about a new promotion. Furthermore, social media use for sharing information by blogging can provide information and reviews for the customer [25]-[27].

- Contact with customer marketing: Tourism enterprises always use social media to contact customers directly such as using Line to confirm the booking of hotels and restaurants [28]-[30].

- Marketing to the tourist: Social media can be a powerful marketing tool that helps the tourism enterprise create online marketing directly, especially by ‘word-of-mouth’ from the tourist to share their tourism experience of their journey [23], [31], [32]

- Feedback from customer: The customer can send feedback via social media to the enterprise, such as comments about products or services of the tourism business, for example feedback about what is good and bad about hospitality services via TripAdvisor [28], [29], [32].

- Building a customer network: Customers use social media to develop their community network for sharing information (text, graphic, video, location) among their group [23], [29]-[31].

- Brand engagement: Social media use for developing corporate brand engagement of the tourism enterprise by developing ‘trust’ [33], [34]. Trust may also be affected by the social media where information is posted [35] to influence the customer intention to re-purchase tourism products and services again in the future.

- Increase profit: Social media is an important tool used for stimulating revenue and income to increase profit [22]-[24], [36] and reduce operational costs (e.g. advertisement costs, telephone costs, operational costs)

Customer engagement: The conceptualization of customer engagement incorporates five dimensions: enthusiasm, attention, absorption, interaction and identification [37], [38]. Where social media is generally a powerful enabler of customer engagement [35], [38], [39] it follows that tourism social media brands like TripAdvisor and Booking.com will seek to inspire customer engagement in each of the five dimensions [39].

The research framework is designed for this study to include eight factors including: providing information (X1), contact with customers (X2), marketing (X3), feedback from customers (X4), building a customer network (X5), brand engagement (X6), increase profile (X7) and customer engagement (X8).

III. METHODOLOGY

This study used a quantitative research approaches that collected data from questionnaires and a qualitative approach that collected data from interviewing business owners of the tourism enterprises as follows:

A. Populations and Sampling

The population of this study is a tourism business case study in Thailand including tourist attractions, accommodation, restaurants, tour operators and souvenir shops, consisting of about 310,336 companies [40]. The sample size was 400 based on Yamane [41] with the confidence level of 95% (α = 0.05). The sampling technique used simple sampling to distribute to 5 major tourism cities (Fig. 1) including Bangkok, Chang Mai, Udon Thani, Ubon Ratchathani, Hua Hin and Phuket.
B. Measurement Development

Based on the research framework and the literature review carried out, 4 questions that related to the demographic of the sample, used close ended questions. The second section of the questionnaire about the use of social networking sites in the tourism business comprised of 8 questions and the type of social networking that had been used in the tourism business comprised of 6 questions using the Likert 5 scale ranging from 5=strongly agree, 4=agree, 3=moderate, 2=disagree, 1=strongly disagree.

The reliability of the measures were tested with the use of SNS in tourism business Conbrach’s alpha = 0.98 and type of social networking Conbrach’s alpha = 0.91. Data was analyzed using SPSS for descriptive statistics and a confirmatory factory analysis (CFA) using LISREL 9.0.

C. Data Collection

The data was collected using a convenience sampling method by sending mail to the tourism business companies. Links to the survey were placed on Facebook and the website of the researcher’s wall. The questionnaire was available online between June and December 2018. A total of 490 completed a response.

D. Data Collection from Interview

The qualitative data was collected from 10 tourism business owners’ by interviewing them about using social media to support their tourism business. The qualitative data was analyzed by the content analysis method.

IV. RESULT

A. Quantitative Result from Questionnaires

The descriptive statistics of the respondents are shown in Table I, the results found that most of the tourism enterprises operated in accommodation (hotel, resort, guesthouse) (26.12 %), most of the tourism enterprise are small, employing 2-10 people (52.24 %), mostly the tourism enterprise has been operating for 6-10 years (37.76 %) and mostly operated tourism enterprises for Thai people (54.08 %).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of tourism enterprise</td>
<td>Tourist attraction</td>
<td>16</td>
<td>3.27</td>
</tr>
<tr>
<td></td>
<td>Accomodation</td>
<td>128</td>
<td>26.12</td>
</tr>
<tr>
<td></td>
<td>Resturant</td>
<td>122</td>
<td>24.90</td>
</tr>
<tr>
<td></td>
<td>Tour company</td>
<td>59</td>
<td>12.04</td>
</tr>
<tr>
<td></td>
<td>Souvenir shop</td>
<td>89</td>
<td>18.16</td>
</tr>
<tr>
<td></td>
<td>Spa</td>
<td>46</td>
<td>9.36</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>30</td>
<td>6.12</td>
</tr>
<tr>
<td>Company size/number of employee</td>
<td>1 people</td>
<td>86</td>
<td>17.55</td>
</tr>
<tr>
<td></td>
<td>2-10 people</td>
<td>256</td>
<td>52.24</td>
</tr>
<tr>
<td></td>
<td>11-20 people</td>
<td>50</td>
<td>10.20</td>
</tr>
<tr>
<td></td>
<td>21-30 people</td>
<td>23</td>
<td>4.69</td>
</tr>
<tr>
<td></td>
<td>31-40 people</td>
<td>23</td>
<td>4.69</td>
</tr>
<tr>
<td></td>
<td>&lt; 40 people</td>
<td>52</td>
<td>10.61</td>
</tr>
</tbody>
</table>

TABLE II: TYPE OF SOCIAL NETWORK USING IN TOURISM ENTERPRISE

<table>
<thead>
<tr>
<th>Type of social network used in tourism enterprise</th>
<th>Means</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>3.98</td>
<td>1.08</td>
</tr>
<tr>
<td>YouTube</td>
<td>3.55</td>
<td>1.11</td>
</tr>
<tr>
<td>Line</td>
<td>3.65</td>
<td>1.13</td>
</tr>
<tr>
<td>Twitter</td>
<td>2.98</td>
<td>1.30</td>
</tr>
<tr>
<td>Trip Advisor</td>
<td>1.41</td>
<td>1.06</td>
</tr>
</tbody>
</table>

The results of the purpose of using social media in tourism enterprise are shown in Table III, providing information (x̄=3.88, S.D. =1.12), second engaging with customers (x̄=3.69, S.D. =1.18) and third marketing (x̄=3.68, S.D. =1.16).

<table>
<thead>
<tr>
<th>Variable</th>
<th>The purpose of using social media in tourism enterprise</th>
<th>Means</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁</td>
<td>Provide information</td>
<td>3.88</td>
<td>1.12</td>
</tr>
<tr>
<td>X₂</td>
<td>Contact with customer</td>
<td>3.54</td>
<td>1.16</td>
</tr>
<tr>
<td>X₃</td>
<td>Marketing</td>
<td>3.68</td>
<td>1.16</td>
</tr>
<tr>
<td>X₄</td>
<td>Feedback from customer</td>
<td>3.44</td>
<td>1.20</td>
</tr>
<tr>
<td>X₅</td>
<td>Build customer network</td>
<td>3.52</td>
<td>1.23</td>
</tr>
<tr>
<td>X₆</td>
<td>Brand building</td>
<td>3.51</td>
<td>1.20</td>
</tr>
<tr>
<td>X₇</td>
<td>Increase income</td>
<td>3.55</td>
<td>1.24</td>
</tr>
<tr>
<td>X₈</td>
<td>Customer engagement</td>
<td>3.69</td>
<td>1.18</td>
</tr>
</tbody>
</table>

Table IV shows that the results of the range of the relationship of variable (X₁-X₈) were between 0.600-0.900.

A factor analysis model of social media using tourism enterprise is shown in Fig. 2 which identifies 20.31, df =14, p-vale =0.12081, RMSEA=0.030. The factor that affects the use of social media in tourism enterprise the highest was (X₅) building a customer network, loading factor (I) (l=1.13), second (X₇) increase income (l=1.07), third (X₃) marketing...
The results of the confirmatory factor analysis (Fig. 2) found that (X₃) building a customer network is the highest confirmatory factor analysis (β=1.13), second (X₅) customer engagement (β=1.07), third (X₆) marketing (β=1.05) and finally (X₇) providing information (β=0.91) respectively. Therefore, the variance of using social network in tourism enterprise was 84.60%, 75.20% and 81.30% respectively.

The results of the statistics significance of the fit indices in Table V, found that every variable passed the criteria [42]. The 1.451 which is < 2 then passed the criteria, p-value =0.121 which is >.05 then passed the criteria, GFI =0.990 which is .95 > .95 then passed the criteria and RMSEA =0.008 which is >.05 then passed the criteria.

Finally, the eight variable factors were suitable for use for social media in tourism enterprises.

B. Qualitative Result from An Interview

The results of interviewing tourism business owners found that social media were used to gain competitiveness in many aspects such as:

- Build customer network and marketing directly to the target especially using Facebook to providing information about promotions and tourism services according to their code "... We always use Facebook Fan page for providing information about our campaign directly to the target customer. For Chinese tourist use We Chat, that is a very powerful social media for Chinese tourist. The numbers of Chinese tourists are growing by more than 20% therefore, we need the use social media to providing information on a Chinese platform...
- Customer engagement by using social media such as “Line@” because most of the tourists always using Facebook to search information but always use Line to engage and communicate with the enterprise. "... our customer always uses ‘Line’ for asking and keep in touch with us. We always send new promotions by using Line@ for engaging our loyalty customers...”
- Reduced cost of operation such as the cost of advertisments in traditional media “... we save a lot of money on advertisments just post information which very fast and an efficient communication way...”

V. CONCLUSION AND RECOMMENDATION

The use of social media in tourism enterprise to gain competitiveness is becoming a “mega trend” in the digital economy worldwide [4], [5]. The functionality of using social media to support tourism enterprise, to provide and share information, create contact directly with the customer, marketing, get customer feedback, build customer networks, build brand engagement, increase profit, and build customer engagement [25]-[28]. However, a significant problem of this study is that Thailand as a world class destination has been using social media to support tourism business [17]. It is very important to study the factors of using social media to increase the profit and gain competitiveness of the tourism enterprise. The aim of this study is to analyses the factors that affect the use of social media in the tourism enterprises for competitiveness in Thailand. This study has a mixed method by integrating a quantitative approach, the data was collected from a questionnaire of 490 tourism enterprises in five major tourism cities and a quality approach that collected data from interviewing key informants. The results found that the most important factor of using social media are as follows:

![Image](image_url)

**Chi-Squares = 20.31, df=14, p-Value 0.12061, RMSEA = 0.010**

Fig. 2. The factor analysis model of the social media use in tourism enterprise.

![Image](image_url)

Fig. 2. The factor analysis model of the social media use in tourism enterprise.
(X5) building a customer network \((b=1.13)\) which most of user use social media develop their social group and social networking group which have the same interest about their travel [29]-[31].

(X5) customer engagement \((b=1.07)\) in support, Leung et al. (2013) posts that social media especially “Facebook” offers an alternative web based tool for tourism enterprise to respond to customer inquiries [6], [37], [38]

(X5) marketing \((b=1.05)\), social media is direct marketing from the tourism enterprise to the customer that is a very effective marketing channel [30], [31].

Finally, the variance of use of social media in tourism enterprise was 84.60%, 75.20% and 81.30% respectively.

The recommendation is that the tourism businesses should develop a strategy plan [43] for using social networks to support their decision marking of tourism.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interests regarding the publication of this paper.

AUTHOR CONTRIBUTIONS

Suanpang presented idea and develop the research questionnaire of this study. Suanpang contributed to the results. Suanpang took the lead in writing the manuscript and provided critical feedback and approved the manuscript

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REFERENCES


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