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Comparing Official Tourism Twitter Accounts: The Case of Four Major Tourist Destinations in Southeast Asia

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ABSTRACT

This study evaluated the performance of the official tourism Twitter accounts of the four major tourist destinations in Southeast Asia namely, Indonesia, Malaysia, Singapore, and Thailand. By using a data analytical software, the study collected data related to the number of tweets, number of interactions, engagement rate, number of followers, number of potential reaches and viral reach from the accounts during an observation of one month of the observation period. A series of correlation analyses was conducted in order to reveal associations among the variables with tourism performance indicators namely, the amount of receipt and also the travel and tourism competitiveness index. The results of the study show that Thailand's official Twitter account generates the highest number of tweets and interactions, while Singapore's account was found to be the least productive account. Despite the low level of productivity, the account recorded the highest number of engagement rates. Moreover, Indonesia's account was found to be the account with the highest number of followers, potential reach, and viral reach. Results of correlation tests revealed that the number of interactions was significantly associated with the number of international receipts while engagement rates correlated significantly with the travel and tourism competitiveness index. Finally, conclusions for scientific and practical purposes are proposed.

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INTRODUCTION

The proliferation of social media use provides a meaningful opportunity for destination marketing organizations (DMO) and marketers in conducting marketing campaign activities (Popesku, 2014). Such online communication platforms enable marketers to conduct valuable promotion activities to their target markets (Kiráľová & Pavlíčeka, 2015; Leung et al., 2013). By using social media as vehicles to convey marketing-related messages, promotional activities from destinations are now no longer constricted by time and space (Pike & Page, 2014). Additionally, such activities also allow marketers to disseminate the messages in the form of text, picture and video (Appel et al., 2019), whenever they want to without worrying about the cost (Yang & Wang, 2015).

From the consumers' point of view, destinations' promotional messages exposed through social media platforms could aid them in their decision-making process (Hudson & Thal, 2013). Furthermore, the use of social media as promotional vehicles also generates interactions between destinations and tourists and also among tourists (Kiráľová & Pavlíčeka, 2015). More particularly, social media allow tourists to share their previous experiences, formulate travel advice, and make recommendations for other (potential) visitors (Xiang & Gretzel, 2010).

Realizing the above-mentioned advantages, most DMOs today maintain official social media accounts in various platforms to communicate directly and effectively with their existing and potential tourists (Roque & Raposo, 2016). Consequently, managing official destination social media accounts is considered as a necessity rather than a choice for destinations (Hays et al., 2013).

One of the most prevalent social media platforms utilized by destinations in reaching their potential target groups is Twitter (Popesku, 2014; Yang & Wang, 2015). Previous studies revealed that most of the leading destinations across the world also used Twitter to communicate with their target markets (Mariani et al., 2016). Moreover, other studies also confirmed that the use of Twitter could benefit destinations especially in disseminating promotional messages (Gibbs & Dancs, 2013), as an effective destination branding tool and medium to engage with target groups (Bokunewics & Shulman, 2017), and could be associated with the number of tourists visit and the amount of international receipt (Antoniadis et al., 2014).

Although studies concerning the use of Twitter within the context of destination marketing were carried out in regions across the world (Cheng & Edwards, 2015; Christensen, 2013; Mariani et al., 2016; Sevin, 2013), the number of studies that specifically address the use of Twitter by destination marketers in the region of Southeast Asia remains limited (Nugroho, 2017). The situation is certainly very

surprising given that tourism is one of the important sectors that could generate foreign exchange income for countries in the region.

As countries in Southeast Asia start utilizing various social media platforms (especially Twitter) as an official communication medium, a periodic evaluation of the platform use has become indispensable. However, there are some limitations when performing such evaluation. First, the number of data collected in evaluating communication on Twitter can be relatively huge and unstructured. The second problem is due to Twitter's nature as a microblogging site, where a tweet produced by an account can elapse quickly. Consequently, a conventional way for evaluating a Twitter account's performance can be time-consuming and difficult to perform.

Considering the importance of an effective and precise evaluation of social media use as destination promotional media, this study proposes the utilization of data analytical software in conducting such an assessment. Building upon a study conducted by Antoniadis et al. (2014), about the association between a destination's official Twitter account performance and a country's tourism performance, this study aims to evaluate the use of official Twitter accounts of four major tourist destinations within the context of Southeast Asia by using a data analytical software. Additionally, this study also analyses the sentiment of the conversations (comments or tweets posted) related to the tweets produced by the official Twitter accounts. Ultimately, the relationship between the destinations' Twitter accounts performance and several tourism performance indicators namely the number of visits, amount of international receipt, and a destination's score on a travel and tourism competitiveness index, are also examined.

Literature Review

The Internet and Social Media Development in Tourism. The rapid development of digital media has changed the way tourism stakeholders communicate and interact with each other (Hernández-Méndez et al., 2015). Moreover, it also changes the way tourism information is distributed by marketers and consumed by travellers. Furthermore, marketers now tend to rely on the Internet to disseminate information and also promotional messages concerning destinations (Xiang & Gretzel, 2010). On the other side, consumers also increasingly turn to the Internet and its application (including social media) for their travel decision-making activities namely, searching for information about destinations (Kang & Schuett, 2013), planning their trip (Fotis et al., 2011), and booking (Hudson & Thal, 2013).

Social media can be defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (Kaplan & Haenlein, 2011). Another definition that emphasizes the importance of users' interaction defines social media as web applications that enable

the process of sharing information, and encourage participation and collaboration among its users (Steenkamp & Hyde-Clarke, 2014). Such activities are possible due to an important characteristic of social media that encourages interaction among users across different levels of closeness (Ariel & Avidar, 2015).

Social media enables its users to conduct information exchange activities and engage in word of mouth communication electronically (Tham et al., 2013). Moreover, current developments show that social media are gaining increasing acceptance both from individuals and organizations (Chung & Koo, 2015). The evidence of such acceptance is reflected by the number of social media users, which currently around 2.95 billion users across all social has media platforms around the world in 2019 (Clement, 2020).

The Use of Twitter by DMOs. One of the most popular social media platforms is Twitter (Bokunewics & Shulman, 2017). According to Omnicore (2020), currently, Twitter has around 330 million active users with 500 million of tweets sent per day. Compared to other social media platforms, Twitter is a text-based microblogging platform with a relatively limited number of characters (Uşaklı et al., 2017). It is perceived as more conversational in nature (Hvass & Munar, 2012) and provides communication features for its users such as tweets (status update), retweets (redistribution of a tweet), mentions (notifying the particular user by mentioning the name of their account), and hashtags (grouping tweets based on a specific issue) (Alhabash & Ma, 2017). The variety of features provide real-time interaction and communication services that could be used by destination marketers to inform about their destination and convey promotional messages to their online audience (Kiráľová & Pavlíčeka, 2015).

Within the context of scientific research, the adoption of social media platforms, in particular Twitter, as a marketing communication tool is a phenomenon that is increasingly examined. More particularly, research on the effectiveness of using Twitter as a promotional tool for destination emerges. One of the earliest studies was conducted by Hay (2010), on the use of Twitter as a tourism marketing tool. The study concluded that Twitter could potentially provide a useful communication platform for DMOs and consumers. However, as the use of Twitter was in an early phase, both parties were still attempting to find a suitable way to utilize this social media platform. Sevin (2013), revealed that the communication activities conducted by the DMOs' Twitter account were mostly about disseminating information and events taking place in their destination. Similarly, a content analysis of Canadian DMO's Twitter accounts revealed that DMOs mostly used Twitter as a vehicle for distributing information and initiating discussion with their followers (Gibbs & Dancs, 2013). Another study evaluating destinations' official Twitter account and relation between the accounts and several tourism indexes revealed that, the use of the official Twitter account by

destinations aligned with destinations' tourism achievements, more particularly, in terms of the number of international visits and number of foreign exchange (Antoniadis et al., 2014). Despite the fact that the above-mentioned studies were conducted in a variety of different contexts, the results of the studies have one similar finding namely, that Twitter was mostly utilized by destination marketers as a medium to convey information and promotional messages related to destinations.

Text Mining and Sentiment Analysis. The dramatic change in the communication technology environment has stimulated the need for new methods in many fields of studies (Burgess et al., 2013). Such methods are particularly needed to accommodate the abundance of digital data available in online environments (Lewis et al., 2013). These data are very diverse, and can be in textual form, images, numbers and may consist of structured or unstructured data.

One of the techniques that can be used in order to collect the data is text mining. Text mining refers to a specific technique that can be used to collect unstructured data based on specific patterns in an online environment. According to Feldman and Sanger (2007), "text mining can be broadly defined as a knowledge-intensive process in which a user interacts with a document collection over time by using a suite of analysis tools". Similarly, de Fortuny et al. (2012), combined several related aspects of text mining and concluded that text mining was a method to reveal knowledge by applying a computerized process to extract new information from unstructured text documents. Moreover, they also argued that the scope of text mining was ranging from document categorization, encapsulation, grouping, extraction, to sentiment analysis.

The application of this technique in destination marketing studies has been carried out by many researchers in the field. Choi et al. (2007) applied the method to discover the image of a specific destination, namely Macau, and how this country was represented on the Internet. Another study examined travel blogs by using text mining to discover the delight of hotel clients in the hospitality industry (Magnini et al., 2011). Likewise, Park et al. (2016) performed text mining analysis to collect data from Twitter (tweets) about cruise travels.

In order to be able to go beyond the data (conversations on the Internet), sentiment analysis can be performed to reveal the propensity and attitude (emotion) of the conversation (Duan et al., 2013). Sentiment analysis refers to a specific computation application based on the propensity of the communicator's attitude toward a particular issue (Li & Wu, 2010). Correspondingly, Liu (2010) proposed that sentiment analysis or opinion mining was a computerized calculation that examined opinions, sentiments, and emotions expressed in texts. In general, sentiment analysis works based on emotional tendencies contained

in a single phrase, sentence, or particular paragraph.

As the use of the Internet and social media platforms for tourism purposes increases drastically, the availability of online data (unstructured data in the form of text) on the Internet rises exponentially (Li & Wu, 2010). Consequently, text mining and sentiment analysis become valuable tools for scholars who analyse the immense number of data available online related to tourism (Liu et al., 2013).

Research Questions

Based on the above-mentioned discussion, the present study proposes the following research questions:

Research question 1: How do the destinations' official Twitter accounts of Indonesia, Malaysia, Singapore, and Thailand perform in terms of (a) the number of tweets, (b) the number of interactions, (c) engagement rates, (d) the number of followers, (e) number of potential reach, (f) number of viral reach?

Research question 2: Which official Twitter account is the most productive in terms of generating tweets?

Research question 3: Which official Twitter account gets a higher level of interactions?

Research question 4: Which official Twitter account scores the highest engagement rates?

Research question 5: Which official Twitter account gets the highest number of followers?

Research question 6: Which official Twitter account gets the highest number of potential reach?

Research question 7: Which official Twitter account gets the highest number of viral reach?

Research question 8: Is there a significant relationship the performances of official Twitter accounts with the countries' tourism performances in terms of (a) the number of visits, (b) amount of international receipt, (c) travel & tourism competitiveness index (TTCI)?

METHODOLOGY

This study monitored the official tourism Twitter accounts of 4 major tourists' destination countries in Southeast Asia (Indonesia, Malaysia, Singapore, and Thailand, namely, @indtravel, @TourismMalaysia, @visitsingapore, and @ThailandFanClub). The countries were chosen because they represent the four destinations with the highest tourist visits in the region and manage the official Twitter account as a means of destination communication. The data collection process conducted for 30 days, from 10 August 2016 until 8 September 2016. During this period, data analytical software was used to record and monitor the communication activities from the above-mentioned Twitter accounts. The recorded activity was limited to the tweets posted by the accounts and interactions (more particularly, retweets and likes generated by other accounts) that appeared as responses to the tweets.

Furthermore, the software also calculated other important aspects of social media communication, namely potential reach and viral reach. Potential reach referred to the total number of accounts that were potentially exposed to the tweets produced by the destinations' official Twitter accounts. Viral reach means the total number of accounts exposed to retweets produced by accounts related to the destinations' official Twitter accounts. In addition, the software also takes into account the engagement rate of each account during the observation period. Engagement rates are calculated by dividing the number of interactions (in terms of retweets and likes) with the number of tweets produced by the accounts. As the engagement rate reflects the level of interactivity of an account, ideally the number of interactions (in terms of retweets and likes) should be higher than the number of tweets. Consequently, the higher the score of the engagement rate, the better the interactivity level of the Twitter accounts. Therefore, ideally, the score of the engagement rate should be 1 or higher than 1.

Another analysis that was performed was sentiment analysis. This analysis was conducted by assessing emotions/attitudes and the tendency of the text posted or written by the destinations' official Twitter accounts with respect to a specific topic. The result of this analysis classified the text of the posts based on three categories of sentiments: a positive sentiment, a negative and a neutral sentiment.

In general, the steps taken in the data collection process can be sorted as follows, first, identifying the official twitter accounts that will be examined. The second, inputting the accounts to the software administrator, and finally, applying several relevant analyses. The data gathered were downloaded through the dashboard of the software.

This study further took into account several important indicators in tourism namely, the number of visits, the number of international receipts, and the score on the travel and tourism competitiveness index. The data was gathered from various official sources such as the official tourism websites of the countries and the UNWTO tourism highlight 2016. Data about the travel and tourism competitiveness index was generated from the travel and tourism competitiveness report of 2015 provided by the World Economic Forum. Subsequently, a series of correlation tests was conducted in order to discover associations among these variables with the performances of the destinations' official Twitter accounts.

RESULTS

The results of the analysis of collected data during the observation period showed that Thailand's official Twitter account produced more tweets than the other accounts, with a total of 153 tweets. The second position was held by Indonesia's account with 95 tweets, followed by Malaysia's and Singapore's accounts with 46 and 14 tweets respectively. Similar results were found when the software monitored the interaction

level of each Twitter account observed in this study. Thailand's official Twitter account had the highest number of interactions with 81 interactions (in terms of retweets and likes), while Malaysia's account reached 22 interactions, Indonesia's account generated 13 interactions and Singapore's account 12 interactions. Table 1 below summarizes all the results concerning the official Twitter accounts' performances in this study.

Furthermore, the tool also calculates the engagement rate of the examined Twitter accounts. The results of this calculation show that Singapore's Twitter account had the highest engagement score, namely 0.86. Thailand's Twitter account recorded the second highest score with 0.53, while Malaysia's and Indonesia's Twitter accounts followed respectively with 0.48 and 0.14.

As far as the number of followers is concerned, Indonesia's Twitter account was identified as an account with the highest number of followers (551,041 followers). Singapore's official Twitter account possesses 42,667 followers (the lowest). Other accounts, namely Malaysia's and Thailand's accounts recorded 222,076 and 71,313 followers respectively.

Another aspect that is also considered in this study is the potential reach of the tweets produced by the accounts. It was discovered that Indonesia's Twitter account had the highest reach with 75,502,184 potential reaches, while Thailand's account had the second position with a 19,249,612 potential reach. The next positions were filled by Malaysia's and Singapore's Twitter accounts with 18,488,524 and 2,810,751 potential reaches.

In addition, the viral reach of the tweets expressed by the four accounts studied was also calculated. The output of this process indicates that Indonesia's official Twitter account recorded the highest number with 17,923.890 viral reaches. The second highest number of viral reach was held by Malaysia's Twitter account with 3,434,624 viral reaches. Furthermore, Thailand's

Table 1

The performance of the official twitter accounts

Official Twitter account	Tweet	Interaction	Engagement rate	Followers	Potential reach	Viral reach
@indtravel	95	13	0.14	551,041	75,502,184	17,923,890
@TourismMalaysia	46	22	0.48	222,076	19,249,612	3,434,624
@visitsingapore	14	12	0.86	42,667	2,810,751	1,705,963
@ThailandFanClub	153	81	0.53	71,313	18,488,524	2,702,179

official Twitter account got 2,702,179 viral reaches and Singapore's official Twitter account obtained 1,705,963 viral reaches.

Furthermore, the data analysis software used in this study also takes into account the sentiments of the tweets produced by the official Twitter accounts. Table 2 presents the sentiment of tweets produced by the investigated Twitter accounts. A sentiment mining was performed and shows that the official Twitter account of Malaysia had the highest percentage of positive sentiment (47.82%). While Indonesia's official account noted the lowest one, with 28.42% of positive sentiment. Other Twitter accounts, namely Singapore's and Thailand's accounts were booked with 42.86% and 30.06% positive sentiments.

Next to the analysis on the Twitter accounts' performances and sentiment analysis toward the tweets produced, this study also collected other data related with tourism performance namely the number of visits, the amount of international receipt, travel and tourism competitiveness reports as presented in Table 3. Data from this table show that Thailand was the country with the highest number of international visits and receipt, while Malaysia, Singapore and Indonesia followed respectively.

Table 2

Sentiments percentage the official twitter accounts' tweet

Official Twitter account	Positive	Neutral	Negative
@indtravel	28.42	66.31	5.26
@TourismMalaysia	47.82	47.82	4.35
@visitsingapore	42.86	42.86	14.28
@ThailandFanClub	30.06	66.01	3.92

Table 3

Number of visits, amount of receipt and travel & tourism competitiveness index

Country	Number of visits (September-October 2016)	Amount of receipt (2015) US$ Million	Travel & tourism competitiveness index
Indonesia	2,098,754	10,761	4
Malaysia	4,444,854	17,597	4.4
Singapore	2,381,714	16,743	4.9
Thailand	4,663,698	44,553	4.3

Despite its high achievements in international visits and the amount of receipt, Thailand only scored 4.3 in the travel and tourism competitiveness index. Such score is lower than Singapore and Malaysia that scored 4.9 and 4.4 respectively. As for Indonesia, the data showed consistent results where the poor achievements in international visits, and the amount of receipt was also reflected in the low travel and tourism competitiveness index (4.0).

After analysing the primary data gathered through the data analysis software and collecting secondary data from various sources, this study performed a series of correlational analyses in order to reveal associations among performance variables. Table 4 summarizes the results of Pearson correlations applied among the examined variables. The results indicate that there was a positive, strong, and significant correlation between interactions and the amount of international receipt, $r = .98$, $p < .05$. Such result indicates that the number of interactions of a destinations' official Twitter account had a positive relationship with the amount of international receipt.

Moreover, the results of the correlation analyses also reveal a strong and significant correlation between engagement rates and travel/tourism competitiveness, $r = .97$, $p < .05$. The result shows that engagement rates as an interactivity score of official destinations' Twitter accounts related positively to the travel/tourism competitiveness level of countries. Other variables that were found to be positively and significantly correlated were the number of followers and the potential reach, $r = .96$, $p < .05$. As followers in this study refer to the number of followers of the destination's official Twitter accounts, the increase in the number of followers is obviously associated with the number of accounts who are potentially exposed to the tweets from the official Twitter account. Furthermore, the correlation coefficient also exhibits a strong relationship between these two variables.

Similarly, the number of followers is also strongly and significantly associated with viral reach, $r = .96$, $p < .05$. The result indicates that the greater the number of followers of the official Twitter account, the greater the number of Twitter accounts that disseminate a particular tweet of the official Twitter accounts. A significant association was confirmed between the potential reach and viral reach, $r = .98$, $p < .05$. Besides showing a positive direction, the coefficient also indicates a strong correlation between the two variables. As the potential reach of the official Twitter accounts grows, the viral reach of the tweets produced by the accounts also grows correspondingly.

DISCUSSION

The findings of this study indicate that Indonesia's official Twitter account recorded the highest number of followers, potential reach and viral reach. However, it scored the lowest within the context of interactions and engagement rates. Thus, it is proper to say that the account was somewhat productive in generating tweets and could reach a larger public due to its large number of followers.

Table 4

Correlation coefficients among variables

	Interaction	Engagement	Number of followers	Potential reach	Viral reach	Number of visits	Amount of receipt	TTCI
Interaction	1							
Engagement	0.045	1						
	0.955							
Number of followers	-0.436	-0.91	1					
	0.564	0.09						
Potential reach	-0.246	-0.932	.967*	1				
	0.754	0.068	0.033					
Viral reach	-0.364	-0.867	.965*	.987*	1			
	0.636	0.133	0.035	0.013				
Number of visits	0.726	0.1	-0.464	-0.446	-0.58	1		
	0.274	0.9	0.536	0.554	0.42			
Amount of receipt	.985*	0.219	-0.584	-0.401	-0.504	0.722	1	
	0.015	0.781	0.416	0.599	0.496	0.278		
TTCI	-0.197	.971*	-0.788	-0.856	-0.763	-0.076	-0.023	1
	0.803	0.029	0.212	0.144	0.237	0.924	0.977	

*(*p < .05)*

Nevertheless, the tweets produced by the account are lacking responses and feedback from the users of Twitter. Similarly, results from the sentiment analysis also confirm the tweets are dominated by a neutral sentiment. The inadequate number of responses, denotes the lack of success of this account in communicating promotional messages that relate the destination with the Twitter users and also signifies the limited impact of the account (Sevin, 2013).

Different results were observed for Malaysia's official Twitter account. Overall, for this account we recorded a less prominent performance in all aspects assessed. Fortunately, some aspects of the account showed better performance in particular in terms of the number of interactions, number of followers, potential reach and viral reach. Moreover, the results of the sentiment analysis show that tweets produced by the account received the highest positive sentiment percentage compared to tweets of other investigated DMO Twitter accounts. As the positivity of tweets determined by the use of positive adjectives that create a positive statement and meaning in its message, such favourable sentiment is made possible by the selection of appropriate words and contains positive adjectives that could attract other Twitter accounts. Although considered as an account with a less prominent performance, Malaysia's account was able to utilize the positive sentiment of the tweets to get more positive responses (in terms of retweets and interactions) from Twitter users (Dang-Xuan et al., 2013).

A less satisfactory performance was obtained by Singapore's official Twitter account. There was only one particular aspect that reached the highest score, namely the engagement rate. The number of tweets, interactions, followers, potential reach, and viral reach achieved the lowest number or score compared to other accounts. Furthermore, results from the sentiment analysis also noted the highest percentage of negative sentiment on the tweets produced by the account of Singapore. Based on the results, it is proper to say this account is less productive in initiating contact with Twitter users. However, the high score in the engagement rate indicates that this account is fairly successful in generating interaction with the public. Based on the experience from Sweden's Twitter account, success achieved by an account in interactions could affect the number of bookings and stimulates a large number of conversations on Twitter (Christensen, 2013).

On the contrary, Thailand's official Twitter account was observed as the most productive account in terms of producing tweets. In line with its productivity, the account also records the highest number of interactions and a relatively high score in engagement rate. As both aspects reflect the level of participation from the public, such achievements signify the account is the most communicative account compared to others. On the contrary, results in terms of the number of followers, potential reach, and viral reach end up in a different way, as the account obtains unfavourable results. Moreover, results of a sentiment analysis

conducted on the tweets produced showed that Thailand's official Twitter account is the account with the lowest percentage of negative sentiment.

In addition to the performance analysis, a series of correlational tests were also performed in order to discover associations among the analysed variables. The results show that interactions associated strongly and positively with the amount of receipt, while engagement rates are associated strongly and positively with the travel/ tourism competitiveness. The positive correlation signifies that a higher level of interaction is associated with a higher amount of international receipt. Similar results also apply for other variables, where the increase of engagement rates is positively related to the increase of travel/tourism competitiveness. These results correspond with Antoniadis et al. (2014), who also found positive associations among these variables when conducting similar analyses concerning European destinations. Moreover, the findings also indicated that Twitter (to a greater or lesser extent) contributed to providing persuasive information to attract tourists' visits.

Other variables that were found to be significantly associated were followers with potential reach, followers with viral reach, and potential reach with viral reach. These results indicate that the number of followers is an important variable that is closely related to potential reach and viral reach. It represents the ability of an account in reaching a broader public on Twitter and other online environments. Moreover, potential reach and viral reach were also found to be significantly associated. Therefore, the efforts to increase the number of followers – that in turn could augment the potential reach and viral reach, should become one of the main priorities in improving the overall performance of a destination's Twitter account. Such results were also confirmed by Antoniadis et al. (2015), who studied followers of European countries' tourism accounts and revealed that followers could play an important role in augmenting the impact of reach in communication through Twitter.

CONCLUSION

This paper assessed the performance of the official Twitter account of four major destinations in Southeast Asia and conducted a series of correlational analyses in order to reveal any possible relationships between the use of such social media and general tourism performance. It can be concluded that the official destination's Twitter accounts examined in this study recorded a varied performance level. One account tends to have a higher number/ score on followers and reach but gets a lower number/score when it comes to interactions and engagement rates. Other accounts face an opposite situation, where they tend to score high on interactions and engagement rates but maintain lower scores on followers and reach (potential and viral). Despite the diversity of these results, a series of correlational tests conducted among

the performances with existing tourism indicators brings more interesting outcomes in this study. The results demonstrated that interactions and engagement rates are the two important aspects that relate to destination competitiveness performance.

The two facets of Twitter performance measurements represent the importance of the interaction between the destination account holders with Twitter users. Consequently, it is important for the account managers to create and produce tweets that relate to its potential and existing publics and, in turn, stimulate a response from them. Stimulating more dialogue with as many possible Twitter users could encourage trust, public agreement, and the creation of understanding between the destination and its market. Furthermore, the improvement of the interaction process apparently can be associated with the increase in the number of international receipts and a destination's score on the travel/tourism competitiveness index.

The significant results of the correlational test toward the interactions and engagement rates in this study also have implications for the measurement of a destination's official Twitter performance. In addition to the existing performance measurements, future studies evaluating Twitter accounts could take into account the number of interactions and engagement rates as two additional variables to integrate into such assessment.

Another aspect that also needs to be considered to improve the performance of a destination's official Twitter account is its number of followers. This variable could play an important role in leveraging the potential reach and viral reach of tweets that are produced by a destination's official Twitter account. When the tweets reach a larger Twitter audience the message can go viral, it means the promotional messages conveyed have spread to a large number of users and become a primary topic of conversation among them.

Within the context of tourism in Southeast Asia countries, findings in this study also indicate that proper execution of social media communication with potential target markets can increase opportunities to attract more visits from tourists. Furthermore, countries in the region (also different regions across the world) need to continue their investment in social media to be able to communicate with their target audience rapidly and effectively.

In addition to the previously discussed results, this study is also characterized by some limitations concerning the measurement of the official Twitter accounts' performance. The first limitation of this study is that it does not take into account the number of tweets that are formulated in the native language about the destinations. Moreover, future research can investigate which topics of the post (picture and caption) can lead to more positive responses. This could inspire marketers who are responsible for the Twitter account of a destination to formulate Tweets that generate more positive responses among their followers. Additionally, future investigations in this field should take into account the proportion

between tweets produced in a destination's native language and English.

Next to the language factor, future research is also needed to take into account the followers of the destination's official Twitter account. More particularly, the identity of followers, namely country of origin, gender, and whether the account is real or fake, should be investigated. Another aspect that also needs to be considered in future studies is assessing the hashtags produced by the official Twitter account in terms of their popularity, potential reach, and viral reach. By incorporating these three aspects in forthcoming studies, researchers in this field could get a more genuine and comprehensive insight into the performance of destinations' official Twitter accounts.

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