An Impact of Social Media and Online Travel Information Search in Vietnam

Vi Thi Tuong Tran,
Tourism Department, Hoa Sen University, Vietnam.
E-mail: vi.tranthituong@hoasen.edu.vn

Ngoc Vu Nhu Phan,
Tourism Department, Hoa Sen University, Vietnam.

Tu Ngoc Nguyen,
Software Engineering Department,
Hoa Sen University Nguyen Van Trang, Vietnam.

Huong Hue Do,
Tourism Department, Hoa Sen University, Vietnam.

_____

Abstract

Social media is increasingly prevalent among and beneficial for travelers. A large percentage of travelers use search engines when it comes to making travel-related decisions. In addition, social media websites which appear on the search results are becoming preferable information sources to travelers. In Vietnam, numerous customers (83%) use search engines before making travel purchase decisions and over one fifth of the population, which is equivalent to 19.6 million, is currently Facebook users. Therefore, the goal of this research is to investigate the role of social media presented by a search engine within Vietnam trip planning context. The research employs a set of selected searching keywords together with ten Vietnam urban destination names in order to unveil the information searching for travel planning. The research adopted a content analysis and descriptive methods in order to enhance the understanding on the subject studied. The findings show to some extent that social media websites can help display searching results, and how certain types of social media websites are distributed across the result pages in online tourism domains. Implications for online marketers targeting Vietnamese audience are also mentioned.

_____

Key Word: Customer generated content, social media, online travel information, search engine, online tourism domain.

1. Introduction

Playing a crucial role on travel information search, social media is represented in various platforms like customer review sites, social network sites and virtual communities. It serves as an optimal tactic in destination marketing organizations (DMOs) marketing strategy to reach global audience with minimum resources (Hays et al., 2013; Fesenmeier, 2007; Gretzel, 2006). In addition, social media is the effective tool of transforming travel planning, the tourist experience and tourism organizations (Buhalis & Law, 2008). Therefore, the emergence of social media impact on the structure of the tourism domain in travel information search (Xiang & Gretzel, 2010). Social media has an influence on the way travelers look for travel information and share their own experience through blogs and micro blogs (Xiang & Gretzel, 2010)

In this context, electronic word of mouth (eWOM) marketing is an alternative to traditional marketing communication tools for practitioners since it offers free and faster than traditional model (Brooks, 1957; Dichter, 1966; Trusov et al., 200. Customer is considered as marketing expert sharing their experience on social media channels like blogs, Facebook, Twitter which significantly impacts on other traveler's decision – customer to customer model. In particular, youngsters trust and reply on the social media upon travelling.

In Asia Pacific (APAC), travelers substantially use social media platforms to inform leisure travel decisions. According to Text 100 report of How Digital Influences Travel Decisions around the World (2012), the proportion of people who reply on Internet reviews, Facebook and online travel forums when making initial decision of vacation destination is 57%, 42% and 51%, respectively. Previous studies have shown that social media websites (e.g. TripAdvisor and Virtual Tourist) rank second and third after travel intermediary websites in the case of online hotel information search among Hong Kong younger travellers (Sun et al., 2016). From supplier side, research on the effects of social media in the tourism industry of Batangas province in Philipppines shows that 87 % of tourism establishments use Facebook as a channel to promote their business, followed by Youtube, Twitter and blogs at 28.6%, 19.5% and 9.1 % (Buted et al., 2014).

Vietnam shows a great potential of e-commerce development in tourism in Southeast Asia with the growth rates of inbound and domestic market annually approximately 8.9% and 10.2%. According to the Customer Barometer Survey with Google in 2015, 8 out of 10 of Vietnamese consumers, especially those who are under 34 years old, are often online at least once a day. The Internet is considered as the first channel to look for information, in which 70% of people use a search engine to get informed before making a purchase. In hospitality and tourism industry in Vietnam, 87% travelers' search are for online hotels, 83% for the ground travel and 94% for online flight ticket before any purchase. However, little is known about the internet users who search for Vietnam as a tourist destination and the role of social media in the

presentation of destination. Therefore, this study aims to measure the contribution of social media in online tourism domain across the search engine results pages in the context of trip planning in Vietnam. There are more than 87% of consumer trust on customer review site, one of the platforms of user-generated content (UGC) for travel planning {Lipsman, 2007 #98;Lipsman, 2007 #98;Chen, 2012 #99}. UGC is a critical tool in business intelligence and data analytics to provide market intelligence and competitive analysis to support business manager's decision (Chen, Chiang, & Storey, 2012). Therefore, this piece of writing emphasises on finding how to tailor the content of social media pages in order to encourage the interaction among users to best serve the audience's interest so as to enhance the ranking of the page to make it more visible across the search engine result pages.

2. Literature Review

2.1 Online Tourism Domain

In term of information technology, a domain implies as groups of computers which share the common set of rules, thus enable users to access and administer easily. Generally, a domain associates with a group of entities which provide audiences with sources of information about a specific subject (Hjørland & Albrechtsen, 1995). A selection of links, domain names and Web pages which contains multi types of file in hypertext formats can be referred as a domain (Xiang & Gretzel, 2010). Hence, an online tourism domain can be defined as a domain that delivers a collection of tourism related information (Xiang, Woeber, & Fesenmaier, 2008). A framework was suggested in which online technology plays an important role on the interactions and communications between industry operators and their consumers (Werthner & Klein, 1999). Online technology developments not only lets consumers to access a vast amount of information but also create a chance for the consumers to give their voice and create a two-way conversation with the industry supplier (Galloway, Mochrie, & Deakins, 2004; Schmallegger & Carson, 2008; Werthner & Klein, 1999). Thanks to the increasing number of people who use the internet as a tool to search for information in order to tailor their trips, there is a need to analyze tourism domain focusing on its role of a mediating entity which serves specific technological functions (e.g., search engine) for tourism purpose planning (Xiang et al., 2008). A study conducted by Fesenmaier, Xiang, Pan, & Law (2010) showed that most of the people using search engines as a tool to look for information during the planning process for their travel trip. Yet, as Wöber (2006) found out in his research, the number of tourism online pages which are visible for users on search engine result pages (SERPs) is very little compared to the number of pages available on online tourism domain. As a result, a lot of tourism websites have very low rankings which apparently prevent customers from approaching.

A conceptualizing framework for the online tourism domain includes four aspects, i.e.: (1) the industry perspective (Leiper, 1979; Smith, 1994) places emphasis on the industry suppliers

and the entities of the online tourism domain; (2) the symbolic representation perspective (Cohen & Cooper, 1986; Dann, 1996; Leiper, 1979) outlines the illustration of related tourism products and specific experiences occurring correspondingly; (3) the travel behavior perspective stands for all the related activities and supporting networks of the experience that take place at specific stages; and (4) the travel information search perspective (Fodness & Murray, 1998; Gursoy & McCleary, 2004) describes the process of searching information to assist the travel escapade (Xiang et al., 2008). The most effective medium which casts back the unique characteristic of destinations and the substantial need for information of travelers is the search engine (Xiang et al., 2008). Finally, the study shows that general search engines not only assist the portrayal of the online domain but also generate implied obstacles to industry suppliers as well as potential online travelers.

2.2 Social Media on the Internet

Social media has recently been increasingly prevalent with a wide range 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, 2010:61). A new definition of social media is "Social media are Internet-based channels that allows users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others" (Carr & Hayes, 2015:23). Thanks to information and communication technology development, Web 2.0 is formed from various social network platforms like media and content syndication, mash-ups (RSS – feeds), AJAX, tagging, wikis, web forums and message boards, customer ratings and evaluation system, virtual community games (for example Second Life), podcasting, blogs and online videos (vlogs) (Schmallegger & Carson, 2008). Social media allows people to create, share or exchange information, ideas, and pictures/videos in virtual communities and networks. Social media technologies take on many different forms including blogs, business networks, enterprise social networks, forums, micro blogs, photo sharing, products/ services review, social bookmarking, social gaming, social networks, video sharing and virtual worlds (Aichner & Jacob, 2015). Social media is classified into different forms such as virtual communities (e.g., agoda.com and lonelyplanet.com), consumer reviews (e.g., tripadvisor.com and yelp.com), blogs (e.g., travelfish.org and blogspot.com), media sharing (e.g., youtube.com), social networks and wikis (e.g., facebook.com) (Lu & Stepchenkova, 2015).

Among those social platforms, blogs and virtual communities are those of the fundamental customer generated content platforms. Blog is updated webpages with variety of functions provided as textual, photos and multimedia content (Nardi, Schiano, & Gumbrecht, 2004). Especially, microblog impacts effectively on the interaction between customers and businesses

to share news and post status updates (Ebner & Reinhardt, 2009). In addition, social media plays a significant role in the marketing communication campaigns for tourism organizations for both informative and promotion tools, it also increases unique visitor for official websites and blogs (Kavoura & Stavrianea, 2015). These applications are relevant references that not only impact on travelers' perception but also destination image (Tse & Zhang, 2013). Furthermore, they are an effective word-of-mouth tool, good interaction with travelers and cost saving in tourism marketing (Litvin, Goldsmith, & Pan, 2008).

Social media is a beneficial information to travelers who can find information and opinions that are posted by other tourists through numerous online venues on customer generated media (CGM) upon their planning pleasure trip (Yoo & Gretzel, 2010). Moreover, the implementation of social media and web 2.0 have diversified business models, business to business, business to customer communication, and customer to customer interaction (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011) and particularly influenced travelers' behavior. In this case, they take on the job as a media agency by coordinating and sharing information with others (Li & Wang, 2011). Thus, tourism marketers can better design the industry information systems in order to assist the launching of effective marketing campaigns by understanding the constitution and representation of the online domain. Social media has grown to be a new heavy player in the area of information traffic (Xiang & Gretzel, 2010) which led to the drastically change of the online tourism domain's constitution.

One of crucial role of marketing is to create and maintain relationships between customers and supplier (Kotler et al., 2013). Customer behavior can be influenced by using various means of advertising yet word of mouth always been considered as one of the strongest mean which has the heaviest influence on customer decision (Engel, Blackwell & Kegerreis, 1969). Word of mouth (WOM) is a term which describes conversations among customers who talked about services or products of certain suppliers (Arndt, 1967). In fact, people tend to trust these conversations than the commercial messages sent through various kinds of advertisements by industry suppliers (Trusov, Bucklin and Pauwels, 2009). The effect of WOM on how customer makes purchasing decision has been known for such a long time.

The way that people communicating has been changing rapidly with the invention of the internet. People easily express their opinions and share with others through internet and quickly receive feedback discussing about the initial idea. All of this reaction process creates a new form of word of mouth called "electronic word of mouth" (eWOM). eWOM was defined as a: "statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" Hennig-Thurau et al. (2004:18). Both marketer and user can generate the eWOM. eWOM does not have face-to-

face conversation feature but it is armed by the ability of easy scattering and accessing by anyone in the world (Hennig-Thurau et al., 2004).

People have the right to share their experience or exchange their opinion about the products or services they have been consumed or heard about with their friend through social media (Kozinets et al. 2010). Consumers generate their own contents using social media as the platform which let their friends or registered members can together share their thought by reading, commenting, liking or even sharing the posts. Consumers can receive advices from their friends or social media users, and if consumers take recommendations into consideration, they can visit the commercial website instantly and thus the purchasing decision can be made immediately. This is one of the prominent features which make eWOM superior over offline WOM.

2.3 Social Media and Search Engine in Online Tourism

Among the existing studies on the role of social media in the context of travel planning, little is known about the impact on the area of searching information stage. Moreover, there is a lack of understanding on what extent that an online traveler really uses social media pages while searching for travel related information. Existing studies on the use of social media gap mainly places emphasis on such topics as defining the role of social media in holiday planning process (Fotis, Buhalis, & Rossides, 2012), destination marketing (Lange-Faria & Elliot, 2012) and its effect on online product purchase decision behavior (Dhar & Jha, 2014). The current papers were built up in a conceptual framework that data are selected through respondents by pre-designed questionnaires (e.g. "To what extend that you usually use social media pages for information search purpose?'') Which is then, very limited in term of objectivity (Gretzel & Yoo, 2008). The official websites and blogs of Destination Management Organizations (DMOs) are top priority search for travelers to lookup travel information; second position is photo sharing sites; and thirdly Facebook is perceived as a considerable source (Kavoura & Stavrianea, 2015). The segmenting of social users' comments ought to be classified for enterprises and organizations to indicate their customer interaction (Ntalianis et al. 2015). However, because of these limitations, the significant presentation of social media in the online tourism domain has not been discussed in a comprehensive way. Understanding of the important role of social media in the constitution of the online tourism domain, social media in tourism information search is considered crucial to study for a better marketing campaign execution (Fesenmaier, 2007; Gretzel, 2006) considering consumer-generated content factor. Many industry operations have enabled this function on their website, normally in the form of testimonial (e.g., Sheraton.com). Marketers usually refer the social media content to the eWOM (Litvin et al., 2008). The new concept of marketing online is to maximize the use of social media to promote brand image and word-of-mouth and to better assist the success of business.

Thus, the role of social media in term of its representation via search engine result pages (SERPs) has become more crucial in order to gain the benefit from this "market intelligence" (Blackshaw & Nazzaro, 2006).

The impact of social media in online travel information search is a complex subject which requires a deep look into the overall tourism online domain related to specific information search context (Xiang & Gretzel, 2010). A great number of online American consumers (86 %) use search engine as a supporting tool to effectively assist them in their travel planning (Pan, Xiang, Law, & Fesenmaier, 2011). This illustrates how important a search engine might be (Hwang, Gretzel, Xiang, & Fesenmaier, 2006; Werthner & Klein, 1999). Referring to consumers' behavior toward online travel information search, Xiang et al., (2008) suggested an original framework which describes the interaction between three related components: (1) the online travelers who generate the need for a number of travel related information questions; (2) the online tourism domain, which consists of a selection of domain names, webs, links etc. supply with a vast sources of tourism information contributed by many "players", including personal travelers posting through social media channels; and (3) the search engine, (a technological tool provided by IT organizations) which plays a key role in determining the portrayal of tourism websites through the SERPS regarding to a number of figures such as the search result rankings, meta tag, page review numbers etc. and has a huge influence on online consumer's perception and their process of choosing tourism products.

This framework gives an idea of how complexity is the online tourism domain and the key role of search engine in deciding the practical boundaries of the domain and defines its presentation on SERPs (Henzinger, 2007; Rose & Levinson, 2004; Spink & Jansen, 2004). Xiang et al. (2008) indicated that the built-in limitations when illustrating such a complex domain as tourism domain because of some technology burden, lead to a number of difficulties for industry suppliers when trying to provide online consumers with related tourism information in a neat and comprehensive way. Pan & Fesenmaier (2006) described the online tourism domain as an "information space" where tourism suppliers try to beat another for the representation on SERPs in order to get in touch with online customers. There're many factors that affect the visibility of tourism pages through this information space, given only a few of search results are available to the users (Kim & Fesenmaier, 2008; Pan et al., 2007; Spink & Jansen, 2004). This is both significant for the search engine to find out and present the most appropriate results in a comprehensive format and for the tourism operators to design the content and format of their pages following the engine way of ranking results in order to get the high chance for a place in SERPs (Henzinger, 2007; Rose & Levinson, 2004; Spink & Jansen, 2004).

This paper places an emphasis on the relationship between social media and the search engine. Given the nature of social media changing frequently, search engines have a tendency to index these pages more regularly. In addition, social media websites possess most of consumer-generated content (CGC) formats that contain many hyperlinks, thus influence their ranking among search results positively (Xiang & Gretzel, 2010). The actively interactions between online consumers such as "digging" and "tagging", automatically produce continuously growing link structure on the Internet. In conclusion, social media can be viewed as a friendly wonderful search engine (Gretzel, 2006). As a result, social media has seen as one of the significant competitors of the online tourism operators because the search engine naturally tends to introduce millions of potential online consumers to the social media pages, thus draws a considering attention as well as trial and loyalty from them (Blackshaw & Nazzaro, 2006). Consequently, the presence of social media pages apparently weakens the audience pool and the reach to other tourism related information pages which can impact the tourism marketer efforts of building brand awareness (Xiang & Gretzel, 2010).

However, due to the nature of social media platforms that allows audience to freely share, comment and rate the service or product without following any specific regulation, it's extremely important for businesses to establish their own methods to control the credit of information or comments given by a huge number of online travelers. Thus, this writing discuss which practice operators are using to justify the contribution of online users in order to guarantee the accuracy of the provided information.

This study also puts focus on studying the role of social media in online tourism domain in the context of using search engine for the planning tourism purposes. The research questions are developed into two sets. The first set is fashioned to study the expanse of social media in search engine result pages:

Q1a. How far does a search engine present social media across the search result pages?

Q1b. What types of social media pages pop up as a result in SERPs?

For further investigation of the significance of social media websites on search results, more details of search engine results related to social media are developed in the second set:

Q2a. What is the distribution of social media websites among search engine result pages like?

Q2b. How do different types of social media distribute across different destinations?

Q2c. Which certain keywords likely get back definite kinds of social media results when users search online for tourism information?

3. Methodology and Research Design

Given the above research questions, an assignment was conducted for mining data from the Internet in order to find out the appropriate answers. A set of pre-defined keywords was integrated with a collection of selected destinations in Vietnam to inquire a search engine. Two

typical search engines are selected to perform the search function in order to explore the difference between search results collections generated and to get more precise findings to support the final discussion.

3.1 Research Design

A scenario of a trip planning was employed in which mimics customers using a search engine to look for tourism-related information. The concept is to inspect different facets of social media representation in SERPs based on defined queries. These facets include: (1) the extent to which social media pages have been represented across SERPs by the search engine; (2) the way the search engine portrays the social media pages across the search result pages; (3) the distribution of different kinds of social media websites and, (4) the connection between the selection of pre-defined keywords integrated with specific destinations and various kinds of social media pages.

A selection of 10 pre-defined keywords were integrated with 10 names of destinations and used to make inquiries performed by Google and Bing search engine. These 10 keyword as are: "attraction", accommodation", "activities", "restaurant", "tourism", "nightlife", "shopping", "park", "hotel" and "event", all being selected based on previous publication. They have likely been used by consumers to search for information related to a destination which they plan to travel to (Litvin et al., 2008; Xiang et al., 2008). Since there has been no paper studying the specific keywords used by Vietnamese travelers to search for tourism-related information for planning purposes, these ten keywords likely reflect searching tendency of inbound tourists who plan to travel to Vietnam. Given that idea, the study places the emphasis on well-known urban destinations to ensure the consistency in the search context. There are three indicators to choose ten destinations in Vietnam the volume of population, the amount of visitors and geographical diversity based on the last study (Xiang et al., 2008). According to the Vietnam tourism strategy in 2011, the government divided the country into seven zones by geographic features to develop destination branding. Representative of each urban city was picked up and combined with the top ten destinations in Vietnam by traveler's choice in 2015. The destination set includes: Ho Chi Minh, Ha Noi, NhaTrang, PhanThiet, Da Nang, Da Lat, Hai Phong, Hue, Hoi An, and Can Tho. Table 1, Table 2 and Table 3 in Appendix show the popularity of ten keywords and ten destinations by Google search.

The Google and Bing search engines were selected as channels used for data collection. As these are highly popular search engines that primarily were chosen by most of the online users. Google particularly dominates the largest percentage of queries on the Internet, appropriately 250 million queries a day (Brooks, 2004) and is considered as 'one of the most comprehensive text-based search engine' (Bertolucci, 2007). Moreover, in term of tourism sector, Google is one of the top ten pages that create the most traffic to travel-related websites (Hopkins, 2008).

Undoubtedly, though it was said that there are definite biases found in the way Google rank the Websites (www.searchenginewatch.com), Google can be referred as the best technological candidate for collecting data related to character of the online tourism domain (Xiang et al., 2008).

The above mentioned selection of the 10 keywords integrated with the 10 pre-defined destinations, has made together 100 queries used to type into Google and Bing text search boxes to take back the results. Since almost all online users only read through the results of the three first pages (Spink & Jansen, 2004), each page includes 10 organic search results and 0-6 paid results. This study will retrieve the results of the three first pages obtained from Google and Bing search engines separately for a better understanding of the representation of social media in different technologies in the context of online planning. The results generated from Google and Bing then will be used to benchmark to each other to find out if there is any similarity or difference in the pattern of ranking's order of various social media pages. iScraping software is a tool that was developed by Microsoft, net framework with C# languages using visual studio 2015 software. The core web browsing libraries are HtmlAgilityPack and Microsoft Internet Explorer which are very prevalent. This is an effective tool for crawling the web search results from Google and Bing. User could get some web information attributes from the search results including web link, web title, search page order, web title, etc. C# languages were employed to automatically send out the queries. There are total three steps in search engine key words from Google. Firstly, two compositions of key words were divided in term of pre-defined destination and travelling related keywords. Secondly, based on the structure of URL synthesis, every single key words were combined through Google search. For instance, in order to find key word "restaurant at Hanoi", the URL   https://www.google.com.vn/#q=hanoi+restaurant are created accordingly. 30 searching results were listed after searching from 3 pages in order. The following pages were

https://www.google.com.vn/#q=hanoi+restaurant&start=10 and

https://www.google.com.vn/#q=hanoi+restaurant&start=20. The final step was extracting key words after searching from Google. Each set of query includes a keyword integrated with a destination which will result in the first 30 organic search results (given the three first pages). The program automatically acquires the three following main figures: (1) website name; (2) website link; (3) domain of the website correlated with each organic search result. Figure 1 demonstrates an organic search result presented by Google search engine. The programs has extracted 3,426 search results, obtained 1,176 unique domain names from Google Search Engine, and extracted 3,900 search results to obtain 781 unique domain names from Bing Search Engine. This below sample illustrates a search result presented by Google Search Engine. In this sample, the URL www.tripadvisor.com.au will be stored in the database together

with the set of destination integrated with certain pre-define keyword which was used to produce the search results.

Figure 1: Organic search result presented by Google
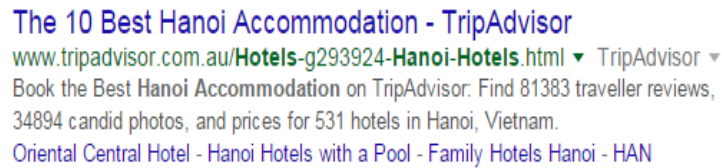
3.2 Coding and Data Analysis

Two researchers worked separately to analyze the search results following a two-step procedure. Firstly, all the unique organic search results are imported into a self-written program to manually review each of single URL to categorize into different types of social media website and non-social media pages. Figure 2 shows the interface of the program used to manually classify the search results.

Figure 2: The Interface of the Program Used To Classify the Search Results Manually
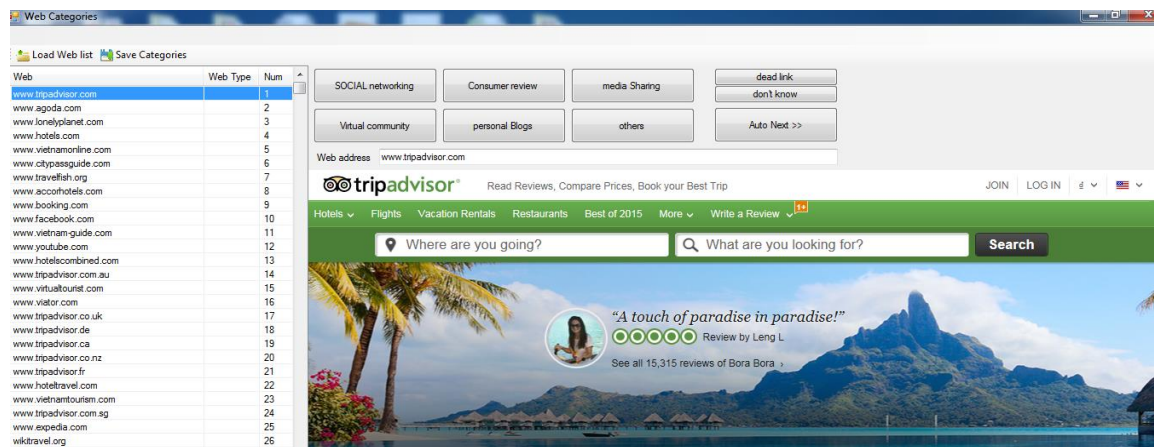
The results were cross-checked manually by the two researchers. The variances are not more than 10% showing that there is a consistency between the two coders. Based on a wide analysis of existing studies, social media can be divided into five main categories: (1) virtual community such as hotels.com, expedia.com or lonelyplanet.com; (2) consumer review sites (e.g., Tripadvisor, Yelp, Zomato); (3) personal blogs and blog aggregators; (4) social networking sites like Myspace, Facebook; and (5) media sharing sites like Youtube, Flicks, Instangram, Pinterest. Another type named as "other" refers to those do not fall into these five above types. Second, researchers will examine several facets of the representation of social media such as: (1) how social media present among the top 3 search pages by Bing and Google; (2) how social media sites distributed by keywords; (3) how social media sites distributed by destination. Then a multivariate statistical technique called correspondence analysis (CA) (Hirschfeld, Jean-Paul

Benzécri) was carried out to investigate the link between destinations and types of social media sites, keywords and types of social media site and between destinations and keywords.

Two researchers worked separately to analyze the search results following a two-step procedure. Firstly, all the unique organic search results are imported into a self-written program to manually review each of single URL to categorize into different types of social media website and non-social media pages. Figure 2 shows the interface of the program used to manually classify the search results. The finding results were cross-checked manually by the two researchers. The variances are not more than 10% showing that there's a consistency between the two coders. C# languages program is used to produce correspondence maps to display the data in a two-dimensional form which showed the relationship between destinations and types of social media pages, keywords and types of social media pages and between destinations and keywords.

4. Findings

4.1 The Distribution of Social Media in Google and Bing

The proportion of social media among 1,176 organic unique results performed by Google is about 18.28% (215 results) while with Bing, the result is roughly 17.16% which contributes 134 unique social media domain names among the total 781 unique organic results. Though there might be bias due to the limitation in the ranking methodology of search engines, this suggested that social media is playing a significant role in the representation of online tourism domain across the search engines. Table 4 and Table 5 in Appendix illustrate the cumulative percentage of the top 30 unique domain names with the highest frequencies by Google and Bing. In both Google and Bing, it is evident that there're big players who has the huge distribution while others have quite small proportion. In Google, the top 20 (9.3%) unique domain names account for 54.34% of the total 215 sites, the top 27 (12.5 %) unique domain names present roughly 61% of the total. In Bing, the top 20 (14.9%) unique domain names constitute 48.97% of the total 134 social media results, the top 30 (22.3%) unique domain names constitute almost 80% of the total.

Figure 3 and Figure 4 illustrates the proportion of different social media types. In Google results, there is no doubt that virtual community type apparently accounts for almost 44% of all the 218 unique social media sites. This gives the implication that virtual community likely is the main platform where interactions of online travelers occur. Though, Tripadvisor (consumer review type) is the number one type in term of frequency (137 repeated times, appropriately 7.6 % of 1,807 repeated times of total social media sites). The personal blogs and blog aggregators type hold the second place with N=51, which accounts for 24% of total. The customer review type takes the next place with N=18 (18% of total social media pages). The top three types together dominate 86% of social media pages obtained by Google search engine.

The next two types included Social Media Networking (as such Facebook) and media sharing sites (such as YouTube and Flick) dominate 7% (N=15) and 5% (N=11) of the total results. The last type is other (all sites that difficult to classify or sites play as micro affiliate pages to jump over other corporate pages like www.destination360.com) account for 2% (N=5). In Bing, the order of social media type is the same of which resulted by Google. A significance proportion of personal blogs and blog aggregators (e.g., travelfish.com) are increasingly prevalent and ranked at 2nd position in social media types at 24% (N = 51). Customer review sites (tripadvisor.com and viator.com) represent approximately 18% and tripadvisor.com has a higher traffic compared to top OTAs like Agoda.com or Expedia.com. A very large majority of social media is composed by these three categories that account for 86% in Google. Furthermore, a very small number of social networking sites (e.g., facebook.com) and media sharing sites (e.g., youtube.com) account for 7% (N = 15) and 5% (N = 11) respectively. Finally, there is only 2% (N=5) of others in social media shares.

It is noticeable from the Figure. 3 and Figure 4 that tripadvisor.com as customer review site in top list unique domain. Customer to customer model is more and more developed and they play a crucial role as "marketing expert" in travel related decision. In addition, virtual communities has a remarkable frequency in social media sites that means online travel agencies is primary data for traveler's reference and Agoda is the leader in this industry at Vietnam. Besides, personal blog sites and social networking tools are a trust and favorite traveler's reference such as travelfish.org and facebook.com. However, media sharing sites have a minority of social media sites.

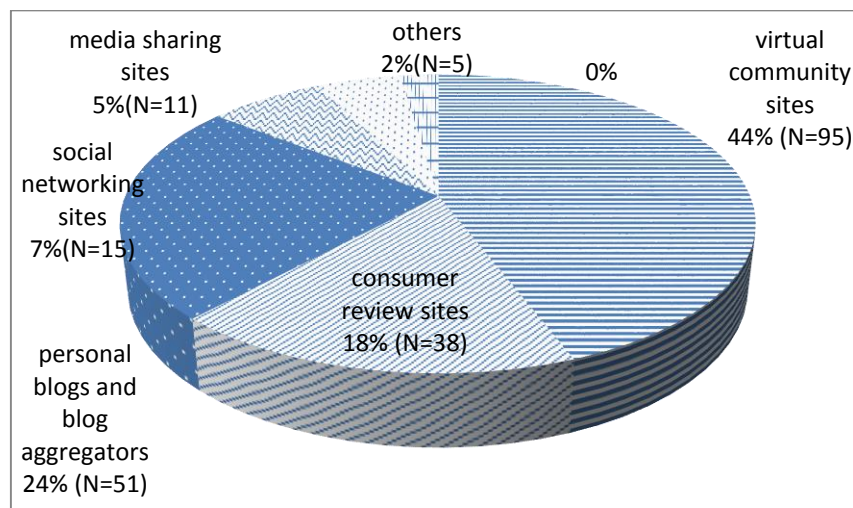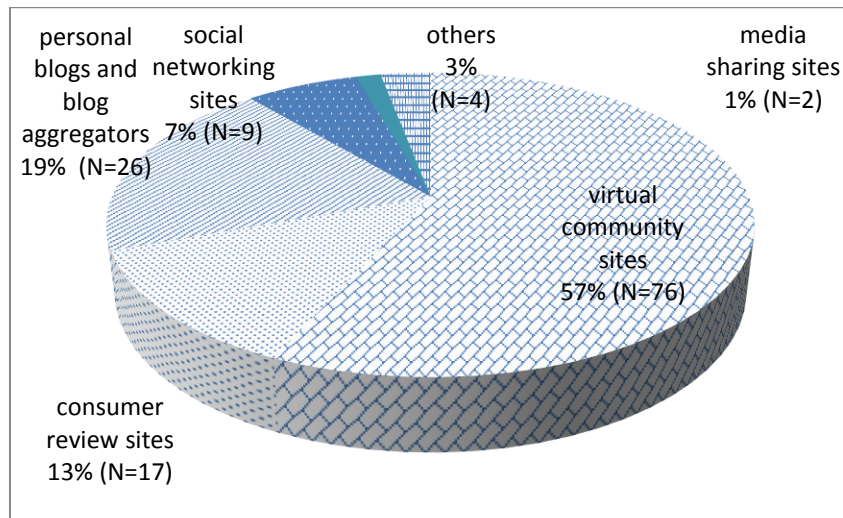**Figure 3: Distribution of social media through Google**

Figure 4: Distribution of social media through Bing

4.2 Associations between Social Media and Search Queries

A glance at Figure 5 and Figure 6 which present the proportion of social media site across the chosen destinations is nearly at the same approximately 10% except Da Nang and HaiPhong. Beach destinations like NhaTrang and PhanThiet dominate the highest proportion compared to the rest. The southern destination like Dalat, Can Tho, PhanThiet and NhaTrang enjoy more favorable attention than other areas. The middle area of Vietnam is likely obtained a smaller proportion except for Hoi An – a cultural feature destination which has the rather high distribution level (third rank, even higher than the two biggest cities are Ho Chi Minh and Hanoi. The results reveals by Bing (in the Figure 6) has exactly the same order with Google which show the consistency between the two search engine systems.

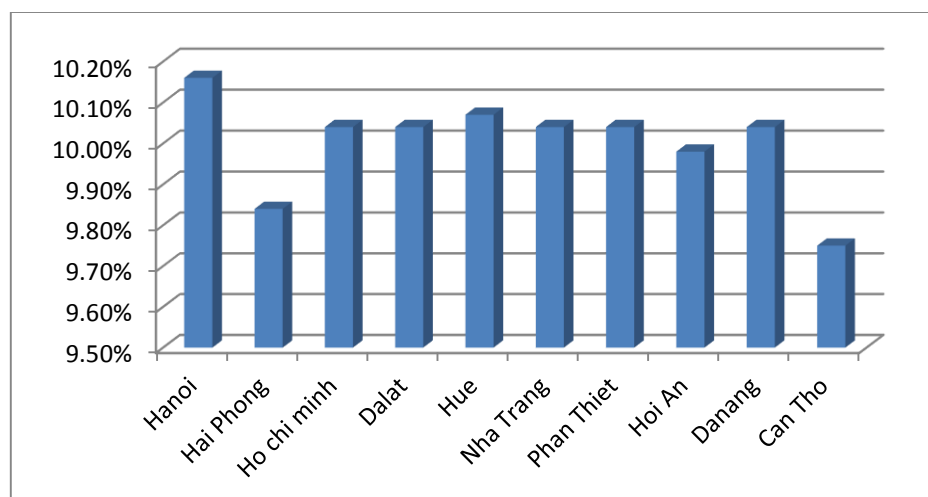**Figure 5: Distribution of social media by destination through Google**

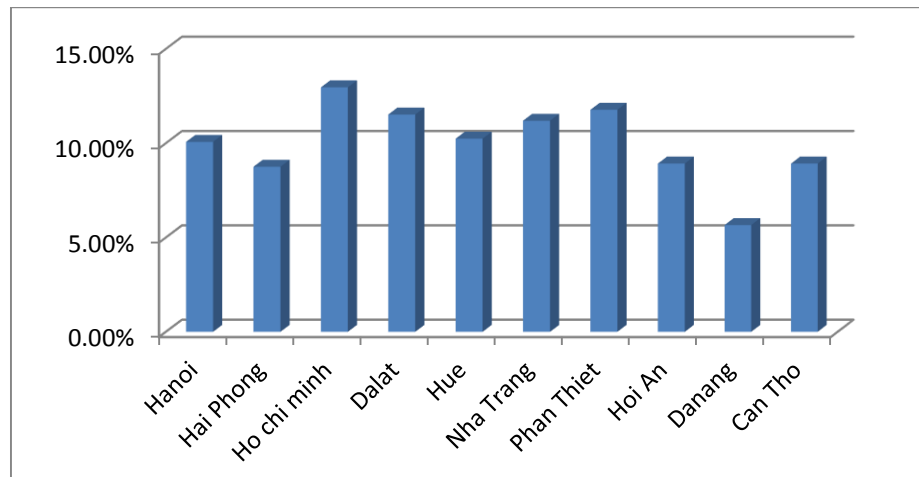**Figure 6: Distribution by destination through Bing**

Figure 7 and Figure 8 show the allocation of social media sites with the 10 pre-defined keywords through Google and Bing. Clearly, the percentage of traveler searching key words "accommodation" and "shopping" is highest at approximately 15% and 12% respectively. Basic tourism product is still on the top caring list like "hotel and accommodation" to get the dominant 25% of proportion. In general, other key words nearly have the same results ranging from 9% to 11%. Interestingly, the key word "Park" shares a big distribution of social media sites, but this kind of property in Vietnam has not received relevant investment from the government.

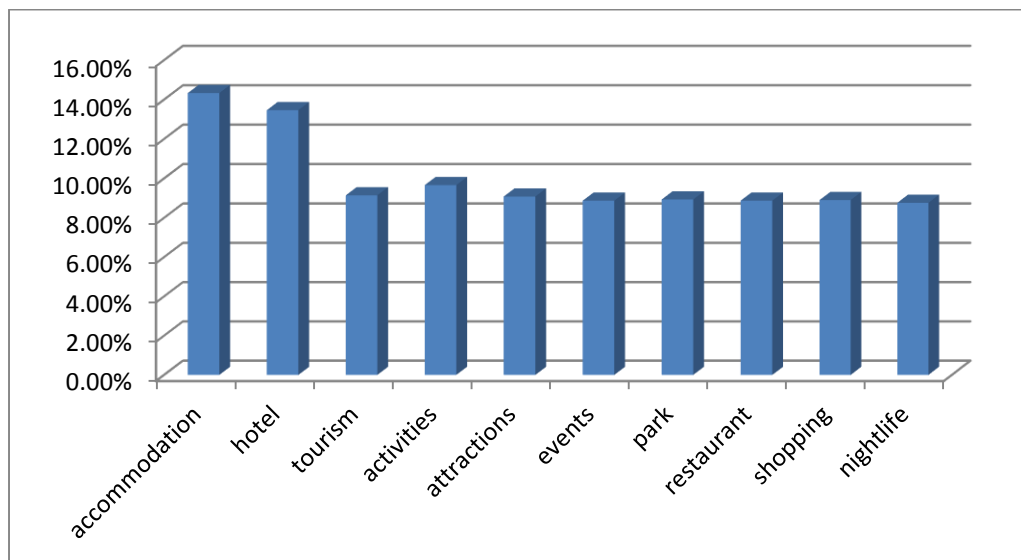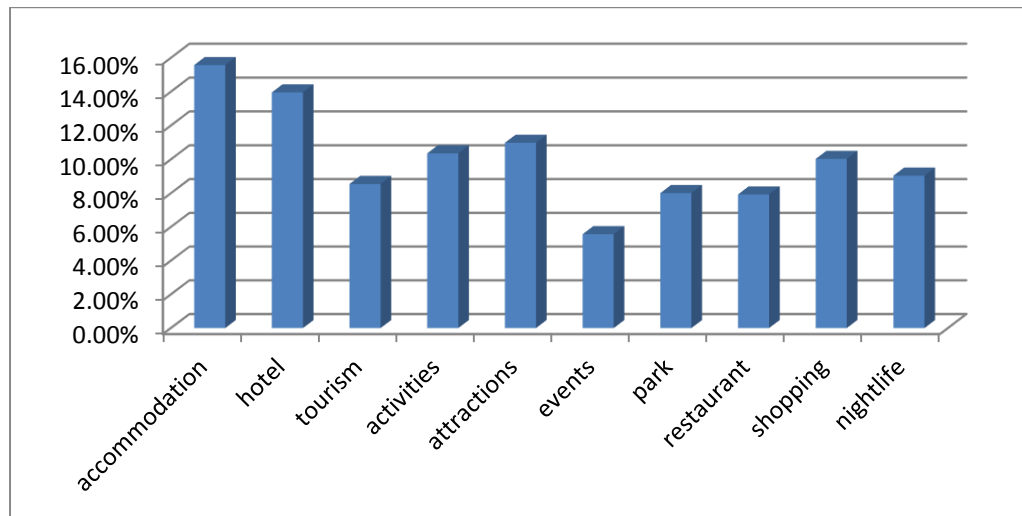**Figure 7: Distribution of social media by keyword through Google**

Figure 8: Distribution of social media by keyword through Bing

5. Discussion

Comparing to Xiang and Gretzel study (2010), this paper extends the research design by using both two most popular search engines Google and Bing to define the role of social media in tourism online domain as well as investigate the different results may occur. Besides, the study focuses on the Vietnam inbound tourism market which gives results almost the same with those found out by Xiang focusing on USA market. This finding confirms the significant presentation of some famous social sites through popular search engines. On the other hands, the study reveals the reason why people prefer using social media as a channel to interact with others. This suggests a new era of marketing which has been created where two-way conversations are highly recommended thanks to the fact that customer has been equipped by the mean on social media to easily raise their own voice. On the other hand, this study gives the presence of social media in tourism organizations in Vietnam. Most of results direct to customer after searching information come from virtual community sites – online travel agencies, customer review sites such as expedia.com, agoda.com and tripadvisor.com. Whereas, official websites, blogs and photo sharing sites of the destination from DMOs are the first sources for traveler searching travel information (Kavoura & Stavrianea, 2015). It is really challenge to DMOs if they do not adapt information and communication technology, web 2.0 and customer generated content on social media platforms.

Information technology growth has a huge impact on all facets of life in general and on tourism industry in specific. The findings of this study re-confirm the important role of search engine in term of planning trip online. Given that search engines open a new channel for online travelers to access a huge amount of tourism information in order to better tailor their holiday, building a strategy that lets their property to be displayed through this channel. This is becoming crucial to all the industry providers. This study provides a general understanding of the role of

social media in search engine representations (Google and Bing). It gives some ideas of to how social media lead among the limited results which have displayed to valuable customers. Though there are certain limitations because only a few destinations and keywords were used to conduct the study done for and reported this paper, its final finding has revealed some interesting results that enable us to confirm the role of social media in online travel information search.

This study gives a general idea of the online tourism domain and indicates valuable implications which assist tourism marketing to better approach online travelers. Firstly, as the findings revealed, social media websites are viewed as high interaction pages by search engines. Thus, social media pages took a large proportion among the domains which are displayed by search engines to online travelers. We can say social media contributed a visible part of the online tourism domain and thus, has heavy effect on online planning and purchasing behavior. However, with the proportion around 18%, there're still rooms for marketers to explore other tools to draw consumers' attention. One of the most well-known features of social media is consumer-generated content which means social media allowed users to produce their own contents and share with others in various forms such as text, video, high-format pictures. These interactions create an e-WOM effect that empowers the liveliness of social media pages over the pages has content which built up by the industry providers.

The findings also showed that social media pages show up on the first three results page of both Google and Bing, which gave them a big chance to approach customers while millions of other pages vanished without a chance to be seen by online searcher. This revealed that social media pages satisfied the specific ranking algorithms used by Google and Bing, the two most powerful search engines nowadays. The significant implication here is how marketers of tourism industry can leverage this powerful feature of social media into their communication tools in order to draw the attention of customer and stimulate them to be involved with supplier's activities. For examples, marketers can create channels that allow customer to feedback about their services and give their opinions, experiences about their trips through CRM (Customer relationship management) programs which can applied both online or offline.

Secondly, the study also revealed the new era of marketing when customers want to have a two-way conversation with industry supplier and with other consumers. Not only are the channels of marketing changing but also the philosophy of Marketing is changing rapidly these days. The one way conversation is no more appreciated by the consumers, and the WOM which considered the best way to persuade consumer to purchase now, thanks to the information technology growth has the double power when consumers now can freely share peer to peer online. This trend created a new viral term called "e-WOM".

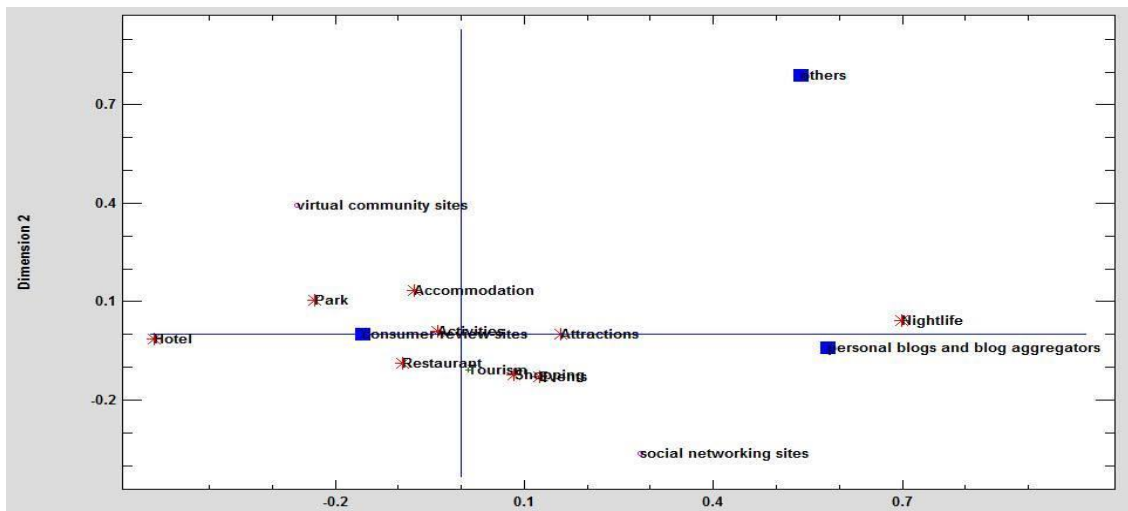**Figure 9: Correspondence between social media and keyword in Google**

Figure 10: Correspondence between social media and keyword in Bing
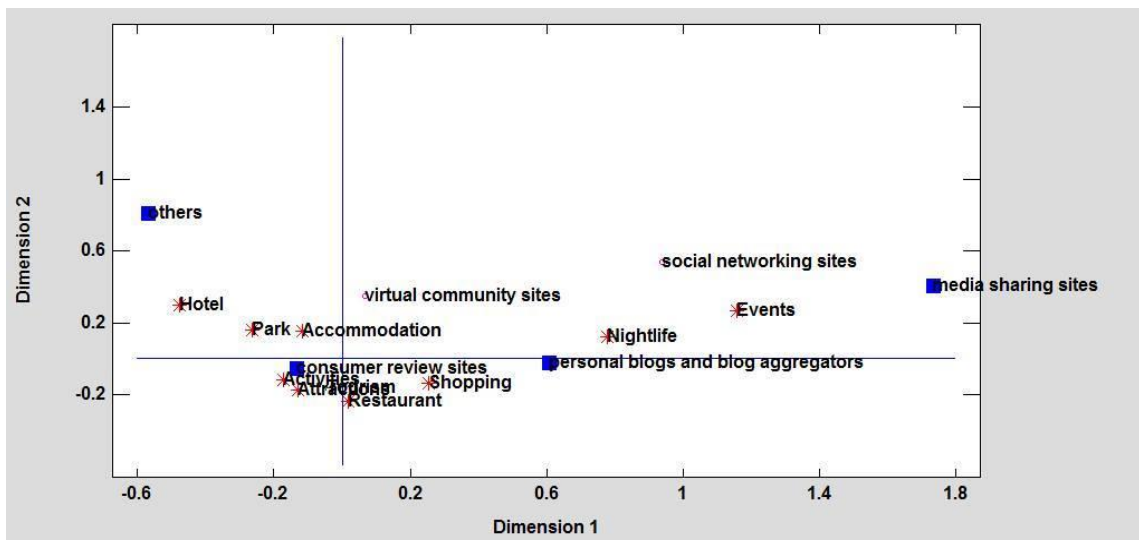
Thirdly, as shown in Figure 9 and Figure 10 the keywords are used to make the queries are in English, the results of this paper aimed at exploring the role of social media in tourism information search specifically in inbound market. The results showed that almost all the social media appeared in the search results are from foreigner sources, not a single page from Viet Nam was displayed across the first three result pages. In addition, the distribution of different types of social media pages seemed to follow the "long tail" rules (Anderson, 2006) when the results show only a few of "big player" dominant almost all the size of domain. Interestingly, the distribution of social media across different destinations is almost the same while there's a big difference in distribution across certain keywords. There're some keywords clearly seemed get a bigger share of social media generated than the other did such as hotel, accommodation. This suggested that the sub-domains contained these keywords must have some specific features that made them standing out of the rest. Moreover, it's likely certain keyword tend to

link with specific type of social media. For example, keywords illustrated the core product of tourism such as hotel, accommodation, attraction seem has closer relationship with virtual community type. On the other hand, keywords such as restaurant and shopping seem to link with consumer review type.

6. Conclusion and Implication

This study explores many facets of the distribution of social media in search engine in the context of searching tourism related information. The findings enable us to confirm the significant share of social media in tourism domain, as well as its visible presentation across SERPs. This implication shows that, social media is growing faster as an emerging channel that marketers need to take into account in order to better approach online customer. It is extremely crucial when nowadays planning and purchasing online is becoming more popular. Moreover, in the context that most of existing studies only placed emphasis on exploring the socio-psychological facet of social media in tourism industry (Pan, Mac Laurin 2007, Pudliner, 2007), not so many research were conducted to investigate about how far social media contributed in tourism online domain. The findings reveal that social media share a visible proportion among results pages represented by Google and Bing, the two most powerful search engines and the best channels to approach customers online, this study contributes a closer look into the role of social media in tourism information search.

Next, this study suggests a potential strained relation between the two participants of tourism information providers: the industry provider and online travelers. The fact that social media has its appearance everywhere in tourism information search online tools and the dominant of some big players such as Tripadvisor, Agoda lead to an important implication that online customers are doing the job that belonged to the marketers before: providing information. Particularly, the growing of social networking sites such as Facebook is a big threat for the traditional information providers. The findings show that marketers can no longer denied the crucial role of social media as an important source which provides tourism related information and they should prepare themselves to better use this channel as a powerful tool to approach online travelers.

Due to the changing of distribution channels and the fast growth of new media, marketers are facing big challenges, this study suggests them with some means by which they can enter the social information area and get to know the factors that drive online consumers to social media pages. This study reveals that technology has a huge impact on how people communicate as well creates new types of communication channels, the growth of technology allows information to be exchanged at an amazing speed. Marketers should weapon them with knowledge of the changes in technology in order to better market their business online. Technology also gives customers the power to create content and publish it easily which

establishes the foundation to form the two way discussion between industry provider and consumers. Search engine is one of the most powerful technology tools which enable the exchanging and sharing information become easier than ever.

Search engine is a crucial bridge which gives way for customer to access to social media sites. It's likely that the search keywords and the ranking paradigm of search engine largely determine the source of information upon which consumers will make up their mind and be influenced when planning their trips. For example, it's very functional for a marketer to know what kind of keyword usually used by consumers, what kind of certain keyword likely generate more social media results across SERPs, or the relationship between certain kind of keyword and different destinations. Such understandings definitely give marketers insight to better adapt to the changing of distribution channels by developing suitable strategy for online marketing campaigns.

It has been discussed that the Internet-based tourism in the future will place the emphasis on technologies that allow industry providers to have a dynamic interaction with their customers (Buhalis& Law, 2008), this study suggest one of important tools that can assist the marketers to conquer this goal. Based on the findings, this study strongly confirms the need for doing SEO (Search Engine Optimization) & SEM (Search Engine Marketing) in order to make sure business sites can be presented across SERPs. Another approach is to weapon corporate sites with some features of social media that let customers to have interaction through this channel. Besides, marketers can execute another strategy that embraces social media by advertising or posting contents on those pages.

7. Limitation and Future Research

This study has some drawbacks due to the limited number of keywords, destinations chosen as well as research data that related to Vietnam tourism. On the other hand, the secondary data of key word in English that specialized for inbound market was not valid for outbound and domestic markets. Besides, Vietnamese has some extra diacritics that deeply influence on a substantial number of online queries. The first three pages was selected that also impact on the diversity of social media types. Yahoo and MSN search engines are prevalent to online travelers and they should be presented in the future research. In order to have a deep understanding of online tourism marketing, future research should be focused on more key words as well as diversity of destinations in Vietnam.

References

Aichner , T., & Jacob, F. (2015). Measuring the degree of corporate social media use. *International Journal of Market Research*, *57*(2): 257-275.

Arndt, J. (1967). Role of product related conversations in the diffusion of a new product. *Journal of Marketing Research*, 4, 291-295.

Bertolucci, J. (2007). Search engine shoot-out. PC World, 25(6): 86-96.

Blackshaw, P., & Nazzaro, M. (2006). Consumer-generated media (CGM) 101: Word-of-mouth in the age of the web-fortified consumer. New York: Nielsen BuzzMetrics.

Brooks, R. C. (1957). Word of mouth advertising in selling new products. *Journal of Marketing*, 22(2): 154–162.

Brooks, T. A. (2004). The nature of meaning in the age of Google. *Information Research, 9*(3): 9-3.

Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism Management*, 29, 609–623.

Buted, D.R.B, Gillespie, N.S., Conti, J.B., Delgado, B.A., Marasigan, R. M. P., Rubico, S. K. A., Felicen, S. S. (2014). Effects of social media in the tourism industry of Batangas province. *Asia Pacific Journal of Multidisciplinary Research*, 2(3): 123-131.

Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, 23(1). doi: 10.1080/15456870.2015.972282

Cohen, E., & Cooper, R. L. (1986). Language and tourism. Annals of tourism research, 13(4): 533-563.

Consumer Barometer with Google (2015). Consumer barometer – Country report Vietnam. https://www.consumerbarometer.com. Accessed 20/11/2015.

Cheung, C. M. K., & Thadani, D. R. (2012). *The impact of electronic word-of-mouth communication: A literature analysis and integrative model*. Decision Support Systems, 54, 461-470.

Dann, G. M. (1996). The language of tourism: a sociolinguistic perspective: Cab International.

Dichter, E. (1966). How word-of-mouth advertising works. Harvard Business Review 44(6): 147–166.

Dhar, J., & Jha, A. K. (2014). Analyzing Social Media Engagement and its Effect on Online Product Purchase Decision Behavior. *Journal of Human Behavior in the Social Environment, 24*(7): 791-798.

Ebner, M., & Reinhardt, W. (2009). *Social networking in scientific conferences–Twitter as tool for strengthen a scientific community.* Paper presented at the Proceedings of the 1st International Workshop on Science.

Fesenmaier, D. R. (2007). Introduction: challenging destination promotion. *Journal of Travel Research, 46*(1): 3-4.

Fesenmaier, D. R., Xiang, Z., Pan, B., & Law, R. (2010). An analysis of search engine use for travel planning. *Information and Communication Technologies in Tourism 2010*: 381-392.

Fodness, D., & Murray, B. (1998). A typology of tourist information search strategies. *Journal of Travel Research, 37*(2): 108-119.

Fotis, J., Buhalis, D., & Rossides, N. (2012). *Social media use and impact during the holiday travel planning process*: Springer-Verlag.

Galloway, L., Mochrie, R., & Deakins, D. (2004). ICT-enabled collectivity as a positive rural business strategy. *International Journal of Entrepreneurial Behavior & Research, 10*(4): 247-259.

Gretzel, U. (2006). Consumer generated content–trends and implications for branding. *E-review of Tourism Research, 4*(3): 9-11.

Gretzel, U., & Yoo, K. H. (2008). Use and impact of online travel reviews**.** *Information and communication technologies in tourism* 2008: 35-46.

Gursoy, D., & McCleary, K. W. (2004). An integrative model of tourists' information search behavior. Annals of tourism research, 31(2): 353-373.

Hays, S., Page, S. J., & Buhalis, D. (2013). Social media as a destination marketing tool: its use by national tourism organisations. Current issues in Tourism, 16(3), 211-239.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G. & Gremle, D. D. (2004). Electronic wordof-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18, 38-52.

Henzinger, M. (2007). Search technologies for the Internet. Science, 317(5837): 468-471.

Hjørland, B., & Albrechtsen, H. (1995). Toward a new horizon in information science: domain-analysis. *JASIS, 46*(6): 400-425.

Hopkins, H. (2008). Hitwise US travel trends: how consumer search behavior is changing. *Accessed November, 21*, 2009.

Hwang, Y.-H., Gretzel, U., Xiang, Z., & Fesenmaier, D. R. (2006). Information Search for Travel Decisions. *Destination recommendation systems: Behavioural foundations and applications*, 1.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons, 53*(1): 59-68.

Kavoura, A., & Stavrianeas, A. (2015). The importance of social media on holiday visitors' choices – the case of Athens, Greece, EuroMed**. Journal of Business**, Vol. 10 Iss: 3, pp.360 – 374.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business horizons, 54*(3): 241-251.

Kim, H., & Fesenmaier, D. R. (2008). Persuasive design of destination web sites: An analysis of first impression. *Journal of Travel Research*, 47(1): 3-13.

Kotler, P., Armstrong, G. M., Harris, L. C. & Piercy, N. (2013). *Principles of marketing*. 6 th European edn. Pearson Education.

Kozinets, R. V., de Valck, K., Wojnicki, A. C. & Wilner, S. J. S. (2010). Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities. *Journal of Marketing*, 74, 71-89.

Lange-Faria, W., & Elliot, S. (2012). Understanding the role of social media in destination marketing. Tourismos. An International Multidisciplinary Journal of Tourism, 7 (1).

Leiper, N. (1979). The framework of tourism: Towards a definition of tourism, tourist, and the tourist industry. *Annals of tourism research, 6*(4): 390-407.

Li, X., & Wang, Y. (2011). China in the eyes of western travelers as represented in travel blogs. *Journal of Travel & Tourism Marketing, 28*(7): 689-719.

Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism Management, 29*(3): 458-468.

Lu, W., & Stepchenkova, S. (2015). User-generated content as a research mode in tourism and hospitality applications: Topics, methods, and software. *Journal of Hospitality Marketing & Management, 24*(2): 119-154.

Nardi, B. A., Schiano, D. J., & Gumbrecht, M. (2004). *Blogging as social activity, or, would you let 900 million people read your diary?* Paper presented at the Proceedings of the 2004 ACM conference on Computer supported cooperative work.

Ntalianis, K., Kavoura, A., Tomaras, P., & Drigas, A. (2015). Non-Gatekeeping on Social Media: A Reputation Monitoring Approach and its Application in Tourism Services. **Journal of Tourism & Services**, 6(10).

Pan, B., & Fesenmaier, D. R. (2006). Online information search: vacation planning process. *Annals of tourism research, 33*(3): 809-832.

Pan, B., Hembrooke, H., Joachims, T., Lorigo, L., Gay, G., & Granka, L. (2007). In google we trust: Users' decisions on rank, position, and relevance. *Journal of Computer-Mediated Communication, 12*(3): 801-823.

Pan, B., Xiang, Z., Law, R., & Fesenmaier, D. R. (2011). The dynamics of search engine marketing for tourist destinations. *Journal of Travel Research, 50*(4): 365-377.

Rose, D. E., & Levinson, D. (2004). *Understanding user goals in web search.* Paper presented at the Proceedings of the 13th international conference on World Wide Web.

Schmallegger, D., & Carson, D. (2008). Blogs in tourism: Changing approaches to information exchange. *Journal of vacation marketing, 14*(2): 99-110.

Smith, S. L. (1994). The tourism product. *Annals of tourism research, 21*(3): 582-595.

Spink, A., & Jansen, B. J. (2004). A study of web search trends. *Webology, 1*(2), 4.

435

Sun, S., Fong, L.H.N., Law, R., Luk, C.(2016). An investigation of gen-Y's online hotel information search: the case of Hong Kong. *Asia Pacific Journal of Tourism Research*, 21(4):443-456.

Text 100 (2012). Study reveals consumers' top vacation motivations and influences. https://www.text100.com/articles/hypertext/travelers-technology-preferences-revealed-in-text100-digital-index-travel-tourism/. Accessed 20/11/2015.

Strategy on Viet Nam's tourism development until 2020, vision to 2030. (2011). Government portal. [Online]. Available from

Trusov, M., Bucklin, R.E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: findings from an internet social networking site. *Journal of Marketing*, 73(5): 90–102.

Tse, T. S., & Zhang, E. Y. (2013). Analysis of blogs and microblogs: A case study of Chinese bloggers sharing their Hong Kong travel experiences. *Asia Pacific Journal of Tourism Research*, *18*(4): 314-329.

Vietnamese Governement
http://www.chinhphu.vn/portal/page/portal/English/strategies/strategiesdetails?categoryId=30&articleId=10051267

Werthner, H., & Klein, S. (1999). *Information technology and tourism: a challenging ralationship*: Springer-Verlag Wien.

Wöber, K. (2006). Domain specific search engines. *Travel Destination Recommendation Systems: Behavioral Foundations and Applications*, 205-226.

Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism Management*, *31*(2): 179-188.

Xiang, Z., Woeber, K., & Fesenmaier, D. R. (2008). Representation of the online tourism domain in search engines. *Journal of Travel Research*, *47*(2): 137-150.

Yoo, K. H., & Gretzel, U. (2010). Antecedents and impacts of trust in travel-related consumer-generated media. *Information Technology & Tourism*, *12*(2): 139-152.

APPENDIX

Table 1: The popularity of the ten keywords on a monthly basis
(using Keyword Planner tool of Google Adwords)

No.	Keywords	Avg. Monthly Searches (exact match only)	Number of search results with single keyword
1	accommodation	246,000	455,000,000
2	hotel	1,220,000	3,010,000,000
3	activities	49,500	1,240,000,000
4	attractions	18,100	501,000,000
5	park	201,000	3,250,000,000
6	events	110,000	3,020,000,000
7	tourism	74,000	737,000,000
8	restaurant	1,000,000	1,540,000,000
9	shopping	550,000	3,130,000,000
10	nightlife	40,500	169,000,000

Table 2: The popularity of each single destination which has been searched by online travellers using Google

No.	Destinations	Avg. Monthly Searches (exact match only)	Number of search results with single keyword
1	Hanoi	165,000	67,200,000
2	Hai Phong	14,800	1,800,000

3	Hue	6,600	98,800,000
4	Danang	27,100	13,100,000
5	Hoi An	60,500	14,200,000
6	Dalat	14,800	2,210,000
7	Ho chi minh	201,000	56,500,000
8	NhaTrang	74,000	18,700,000
9	PhanThiet	12,100	954,000
10	Can Tho	14,800	36,000,000

Table 3: The popularity of the ten destinations integrated with ten keywords in search results performed by Google

Number	Keyword	Avg. Monthly Searches (exact match only)
1	hotel Hanoi	2,400
2	hotel Ho chi minh	1,900
3	hotel Hoi An	1,000
4	hotel NhaTrang	1,000
5	restaurant Hanoi	720
6	hotel Hue	480
7	shopping Hanoi	390
8	shopping Ho chi minh	390
9	restaurant Ho chi minh	320
10	restaurant Hoi An	320
11	hotel Dalat	320
12	hotel Danang	320
13	accommodation Ho chi minh	260
14	hotel PhanThiet	260
15	nightlife Hanoi	210
16	accommodation Hoi An	210
17	hotel Can Tho	210
18	accommodation Hanoi	170
19	nightlife Ho chi minh	170
20	restaurant NhaTrang	170
21	shopping Hoi An	140
22	restaurant Hue	110
23	restaurant Can Tho	110

Table 4: Top 30 unique domain names with highest frequency presented by Bing

No.	Web	Categories	Frequency	Percent	Cumulative percent
1	agoda.com	*virtual community sites*	274	11.3%	11.31%
2	www.tripadvisor.com	*consumer review sites*	195	8.1%	19.36%
3	booking.com	*virtual community sites*	162	6.7%	26.05%

4	www.lonelyplanet.com	*virtual community sites*	138	5.7%	31.75%
5	www.hotels.com	*virtual community sites*	99	4.1%	35.84%
6	www.tripadvisor.com.au	*consumer review sites*	90	3.7%	39.55%
7	www.vietnam-guide.com	*virtual community sites*	88	3.6%	43.19%
8	www.virtualtourist.com	*virtual community sites*	88	3.6%	46.82%
9	www.vietnamonline.com	*virtual community sites*	80	3.3%	50.12%
10	www.viator.com	*consumer review sites*	79	3.3%	53.39%
11	www.tripadvisor.co.uk	*consumer review sites*	60	2.5%	55.86%
12	tripadvisor.com	*consumer review sites*	55	2.3%	58.13%
14	hotelscombined.com	*virtual community sites*	52	2.1%	60.28%
15	www.agoda.com	*virtual community sites*	52	2.1%	62.43%
17	www.tripadvisor.ca	*consumer review sites*	49	2.0%	64.45%
19	www.tripadvisor.com.sg	*consumer review sites*	47	1.9%	66.39%
20	www.booking.com	*virtual community sites*	45	1.9%	68.25%
21	en.wikipedia.org	*virtual community sites*	37	1.5%	69.78%
22	wikitravel.org	*virtual community sites*	33	1.4%	71.14%
23	www.citypassguide.com	*virtual community sites*	32	1.3%	72.46%
24	www.travelfish.org	*personal blogs and blog aggregators*	30	1.2%	73.70%
25	www.tripadvisor.com.my	*consumer review sites*	28	1.2%	74.86%
26	www.hotels-in-vietnam.com	*virtual community sites*	27	1.1%	75.97%
27	www.youtube.com	*media sharing sites*	27	1.1%	77.09%
28	www.facebook.com	*social networking sites*	26	1.1%	78.16%
29	www.tripadvisor.co.nz	*consumer review sites*	25	1.0%	79.19%
30	au.hotels.com	*virtual community sites*	23	0.9%	80.14%

Table 5: Top 30 unique domain names with highest frequency presented by Google

No.	Web	Categories	Frequency	Percent	Cumulative percent
1	www.tripadvisor.com	consumer review sites	137	7.3%	7.3%
2	www.agoda.com	virtual community sites	90	4.8%	12.1%
3	www.booking.com	virtual community sites	75	4.0%	16.0%
4	www.lonelyplanet.com	virtual community sites	70	3.7%	19.8%
5	www.facebook.com	social networking sites	56	3.0%	22.7%
6	www.hotels.com	virtual community sites	53	2.8%	25.5%
7	www.vietnam-guide.com	virtual community sites	50	2.7%	28.2%
8	www.youtube.com	media sharing sites	50	2.7%	30.9%
9	www.hotelscombined.com	virtual community sites	49	2.6%	33.5%
10	www.tripadvisor.com.au	consumer review sites	47	2.5%	36.0%
11	www.vietnamonline.com	virtual community sites	43	2.3%	38.2%
12	www.virtualtourist.com	virtual community sites	37	2.0%	40.2%
13	www.viator.com	consumer review sites	35	1.9%	42.1%
14	www.citypassguide.com	virtual community sites	34	1.8%	43.9%
15	www.tripadvisor.co.uk	consumer review sites	33	1.8%	45.6%
16	www.tripadvisor.de	consumer review sites	32	1.7%	47.3%

17	www.travelfish.org	personal blogs and blog aggregators	31	1.6%	49.0%
18	www.tripadvisor.ca	consumer review sites	31	1.6%	50.6%
20	www.tripadvisor.co.nz	consumer review sites	29	1.5%	52.2%
21	www.tripadvisor.fr	consumer review sites	25	1.3%	53.5%
22	www.hoteltravel.com	virtual community sites	23	1.2%	54.7%
24	www.tripadvisor.com.sg	consumer review sites	22	1.2%	55.9%
25	www.expedia.com	virtual community sites	20	1.1%	56.9%
26	wikitravel.org	social networking sites	19	1.0%	57.9%
27	www.tripadvisor.co.za	consumer review sites	18	1.0%	58.9%
29	www.expedia.com.au	virtual community sites	17	0.9%	59.8%
30	www.tripadvisor.ie	consumer review sites	15	0.8%	60.6%