

APPLYING PRINCIPLES OF DIGITAL MARKETING TO THE HOSPITALITY INDUSTRY

Dr. Tushar Arya,

Assistant Professor, MGM College, Patliputra University

Email: tushararya11@gmail.com

Abstract:

Because of their close ties to the tourism industry, the lodging and hospitality sectors are among the most prominent service providers that have had to make substantial adjustments to their approaches to client communication since the advent of the Internet. The following article presents research that expands upon earlier studies and the existing literature on the topic of Internet marketing for the hospitality industry. Our research findings lead us to offer a holistic conceptual model of Internet marketing communication tailored to the needs of the hospitality industry. The proposed model encompasses the entire online communication process, from identifying a target audience to converting them through the use of a business's or institution's website to fulfilling a purchase and soliciting feedback. The systemic method enables us to zero down on the procedural aspect of communication and precisely identify all the inputs and outputs at each stage, as well as the corresponding online instruments that the Web's digital environment makes available.

Introduction

An increasing number of Internet users and the development of self-service technology have given the final consumer the ability to plan his or her own vacation without the help of a conventional travel agency. Customers can now reach out to hotels and other service providers instantly via the web (Stockdale, 2007). All types of customers find value in using online technology and the Internet for communication and planning. But since the emergence of Generation Y, they have become increasingly influential and dominating (Xiang, Magnini, & Fesenmaier, 2015a; Xiang, Schwartz, Gerdes, & Uysal, 2015b). As a result, there is a growing trend toward providing more customised customer service that prioritises the convenience of the user when they are gathering data and making reservations.

Because of the unique circumstances brought about by the shift of hotels' and other types of accommodations' primary communication channel online, customer relationship management software has become increasingly widespread (consumer relationship management). So-called "e-CRM" refers to electronic customer relationship management, a field that the hospitality industry has just entered (electronic CRM). E-CRM strategies employ practises with the goal of maximising the Internet's inherent benefits by spreading timely information and providing individualised service with the goal of increasing customer lifetime value (Langvinien & Daunoraviit, 2015). Quality of information, design, customer service, fulfilment terms of the transaction, integrated marketing channels, online communities,

bonuses, levels of personalization, website security, added customer value, reliability, and price advantage are just a few of the 12 dimensions of Internet communication that influence the efficacy of e-commerce marketing strategy identified by Ab Hamid and McGrath (2005). Mekkamol, Piewdang, and Untachai (2013) used exploratory factor analysis and structural equation modelling to build and assess the validity and reliability of a four-factor e-CRM model. Shopping convenience, website personality, caring and service dimensions, and website quality were all found to be positively related.

Social networks and online communities can swiftly disseminate information about customer pleasure or unhappiness with any of these criteria across the entire digital world. Digital social media and other forms of online advertising have become increasingly commonplace in the marketing strategies of travel firms and hotels (Gulbahar & Yildirim, 2015). It's no secret that digital information sent through the Internet is now crucial to many marketing initiatives. Although hotels may vary in their degree of Internet-based customer service, the industry as a whole appears to be moving in this direction (Law, Qi, & Buhalis, 2010).

Customers seek third-party verification before purchasing hospitality services because they believe this type of transaction has highly speculative emotional repercussions (Lewis & Chambers, 2000). Internet users' demands and initial motivations for doing online travel information searches, as well as their behaviour and the virtual-response strategies of accommodation and other hospitality facilities, are the primary foci of current research. While many frequent Internet surfers like perusing potential vacation spots online, others find the pursuit of specific information to be annoying and time-consuming. There's little doubt that this is because of the abundance of available resources, such as travel websites and metasearch engines (Rabanser & Ricci, 2015). Because of the increasing importance of interpersonal influences inside and between user groups, it is crucial to offer advice and direction to those who use the Internet.

In this research, we present findings related to hotel Internet communication tactics. The research findings are given in the form of a holistic model that accounts for each step of the communication process with these clients and every online tool that may be incorporated into and handled as part of the overarching marketing strategy of the company in question.

This is the hospitality staff. We drew on secondary literature and in-depth case studies to further understand the nuances of online interaction. That makes it possible for us to apply the systemic approach more uniformly, which might not have been possible in a single study. Current findings linked to Internet communication in tourism, while extensive, are fairly dispersed across a wide range of research issues; we hope our model will help bring these together. An example of how the systemic model can be used as an analytical tool is provided in this paper to show how hotel and motel management can benefit from using it to fine-tune their advertising campaigns.

The basic principles

The term "General System Theory" (GTS) is used to describe a school of thought within the scientific community that proposes a consistent and generalised approach to analysing research issues. The ultimate goal is to formulate universally applicable rules for the investigation of all conceivable current systems, across all possible scales and fields of research. Knowledge in different fields can be brought together through the lens of General System Theory, which can be seen as a common language for this purpose (Skyttner, 2001). Ludwig von Bertalanffy first coined the phrase "system theory" in 1920 in an article where he discussed the many drawbacks of analysing individual biological components in isolation. Bertalanffy claims that prior research into the topic did not yield any results that shed light on how precisely these components work together or on the processes between them. Scientists, in his opinion, need to stop studying individual parts of complex biological systems and start studying the rules that describe how those systems work. Bertalanffy coined the term "systemic theory of organisms" to describe this approach. System-thinking was initially applied to fields like sociology, but it was met with widespread approval from the scientific community (Von Bertalanffy, 1972). Systems theory is a sophisticated scientific method. However, because of this work's constraints, we will just discuss the fundamental ideas and definitions needed to comprehend the build and operation of the suggested model.

When we say "system," we mean everything that isn't random and chaotic, everything with a plan and a structure (Boulding, 1956). As defined by Ackoff (1971), a system is a collection of two or more parts whose collective behaviour reflects its parts. A decrease in local entropy can be attributed to the existence of these interconnected things and the relationships between them. To understand the system's design and architecture, entropy is crucial. Entropy is a universal property that must be grasped as an indicator of a system's health. As a system's energy decreases, the entropy rises. If the system is completely sealed off from the outside world (a closed system), then the entropy will eventually rise to an unacceptable level and the system will cease to function. On the other hand, open systems include enabling features that postpone the onset of maximum entropy. These systems combat entropy by maintaining an adequate supply of matter, energy, and information. Negentropy describes these types of events (Bailey, 1987).

Cybernetics focuses primarily on the study of methods for the ongoing control of systems. With his 1948 paper "Cybernetics or Control and Communication in the Animal and the Machina," Norbert Wiener is widely regarded as the field's progenitor. In his book, he discovered universal laws that might be applied in engineering and biology. From the beginning, its focus has been on processes that improve the system's internal mechanisms and communications both within the system and with the outside environment. In living things, this process of maintaining stability is termed homeostasis. Since their primary function is information processing rather than energy conversion, cybernetic control systems are very energy efficient. The components of these regulatory systems are:

Processing data, writing code, making choices, and talking to each other all fit within this category (Wiener, 1948). The stages of operation for these feedback procedures are as follows: The first step is for the command centre to determine what optimal parameters should be and what the system's objectives should be. In the subsequent stage, these inputs undergo a metamorphosis into outputs that shape the behaviour of the entire system and its environment. These variations are monitored and reported to the command post for comparison with the set targets. As soon as the control centre detects an error that throws the system out of whack, it takes the necessary steps to restore equilibrium. Cybernetic principles, like those of General System Theory, can be applied to any scientific discipline (Ashby, 1957).

All the considerations above should be made while doing a whole-systems analysis on a topic of interest. If you want to create an accurate system model, you need to know what goes into it and where it lives. When we talk about objects, we're referring to the primary input element that goes through the transformation process and emerges in a new state that's employed to meet a given set of needs (Gharajedaghi, 1999). System elements — operators in charge of the transformation — supply this necessary change in state. Generally speaking, there are three types of operators: the human element, the technical means, and the external factors originating from the environment. Technical process operators are part of the human component since they make decisions and put the service into action based on their own levels of expertise, knowledge, skills, talents, and credentials. All of these steps lead to the desired operand state transition. The term "technical means" refers to the equipment and instruments utilised by humans or machines performing numerous tasks involved in a technological process. Performance and operating characteristics of these means, as well as their management systems, define their impact on the input transformation. Choosing when and where transformation procedures are implemented is affected by environmental factors generated outside and impact the technical process's input and output components' functionality (Churchman, 1968).

To determine what methods are most effective for system management, it is necessary to first understand them. Integrity is the system's defining characteristic, which means that it responds to its external environment as a unified whole. All of the complex's actions are carried out by its constituent parts. The unique behavior of a system can be traced back to the elements themselves, which are defined by their properties.

There are two stages to systemic methods: analysis and synthesis. These actions make up the analytical phase: First, we need to get a more precise formulation of the issue; second, we need to figure out how to solve the issue; third, we need to figure out what the system is made of and how it interacts with the outside world; fourth, we need to figure out what the system's purpose is by elaborating on the system's functions; and fifth, we need to figure out how to evaluate the system's reliability and efficiency.

The main part of this study is devoted to a systematic evaluation. The following steps are used during the synthesis phase to apply the findings from the analysis: The first step is to model the system and simulate its functions or behaviour toward the environment. The second step is to optimise the system's behaviour. The third step is to propose a control method for the system's functions. The fourth step is to guarantee the system meets all of the necessary reliability and effectiveness standards (John, 2003). Section 5 will examine Hotel Y as a case study to elaborate on what we mean by "systemic synthesis."

Methodology

As part of the hotel and tourism industry, we conducted secondary research to determine the most important parts of Internet contact with guests. ScienceDirect was selected as our database of choice, and we conducted our study there using the terms "Internet hospitality" and "Internet tourism" to narrow our focus to studies published no later than the year 2000. According to Buhalis and Law (2008), the year 2000 was a watershed moment in the revolutionary impact of ICTs on the hospitality and tourism sector. Since we did not specify an end date for our sample, it includes all articles that were still accessible in ScienceDirect as of November 25th, 2015.

Using these parameters, we located 7097 papers containing the keywords "online tourism" and 3083 results for the entry "internet hospitality." We chose broad search terms on purpose to ensure we covered as many relevant areas as possible. Both cases saved the resulting citations and abstracts as a text file. The only restriction is that the database's filters will only return results for articles that utilise these keywords in the title or journal name. So it's possible that not all of the relevant papers will be considered. For instance, a paper published in *Electronic Commerce Research and Applications* titled "The effect of website characteristics in online relationship marketing: A case of online hotel booking" would not be included in the selected literature. Because of this caveat, we decided to conduct our study using purely lexical content analysis.

First, we used QUITA (Quantitative Index Text Analyser) to conduct a lexical content analysis of the available literature. Token counts and occurrence frequencies in a text are calculated using QUITA. These findings are given in a frequency table for ease of reference. The analytical outputs were then cleaned up by eliminating irrelevant words using a negative vocabulary we had previously established.

We also performed a second tweak, which involved removing tokens that occurred relatively frequently ($b > 20$). Based on their semantic significance, the remaining tokens were then organised into six groups that correspond to the most frequently mentioned subjects found in the search results (Table 1).

The identified categories were then dissected into smaller, more manageable themes for in-depth examination. A total of 130 articles were located that discussed the use of ICT in the hotel and tourism sector. One hundred eighty-eight articles were assessed for their insights

into what drives customers to remain loyal to a company and how satisfied they are. Out of a total of 50 articles, the least described difficulty lies with the Semantic Web and customer search for information.

There were 178 entries devoted to the function of electronic intermediaries and 240 entries to the function of virtual word of mouth. In total, we reviewed 476 publications discussing various web design and development aspects. The next chapters detail the definitive conclusions reached about these six elements. Taking these six considerations into account, we applied the ideas of systems theory to offer an integrated model that establishes causal connections between various e-tools that hotels can use at various points in the marketing communication process.

Elements of a comprehensive paradigm for Internet-based interaction in the hotel sector

Both analytic and synthetic steps make up the systemic method, as discussed in Section 2. This section provides a holistic evaluation of the communication practises that revolve on information and communication technologies in the hotel and tourist sector. We define the system's structure, elements, aims, and functions based on inferences drawn from secondary literature sources.

Adoption of Information and Communication Technologies (ICT) by Tourism Organizations: There are advantages and cons to using new technologies, and we'll go over both of them in Section 3.1.1.1. Alford and Clarke (2009) argue that IT and comms are crucial components of any modern business. They have influenced every aspect of the tourism industry. It has also been shown time and time again that implementing ICT has positive results. There is a direct correlation between the use of ICT and a decrease in operational costs, an increase in the efficiency of services' overall quality is of high level. In addition to these benefits, ICT has had a significant effect on the social and behavioural processes associated with user-generated content and data collection regarding customers' travel preferences (Nicolae & Sabina, 2012). Their impact goes well beyond the confines of single businesses. The use of information and communication technology (ICT) has the potential to facilitate the development of inter-organizational networks across hotels, therefore facilitating the development of shared competencies and the dissemination of useful information (Breukel & Go, 2009; Del Chiappa & Baggio, 2015).

The potential of Internet-based customer knowledge management is highlighted by Daghfous and Barkhi (2009). The primary foci of the research are the ways in which ITC can improve supply chain management, customer relations, and total quality. The authors stress the importance of knowledge-based competitiveness and the importance of enhancing the preparedness of hospitality businesses to collect and effectively utilise this knowledge. Sigala and Chalkiti (2014) conducted a survey of Greek hotels and found a very low adoption rate of web 2.0 solutions for knowledge management. The authors also offered an examination of

utilisation and importance that would help in determining which web 2.0 technologies would be most useful to a hotel.

Despite the undeniable advantages of Internet (marketing) communication, studies also show that online tools and technologies may not deliver the predicted benefits in some areas or under some circumstances. The case of Chinese hospitality businesses was discussed in a 2003 study by Ma, Buhalis, and Song. They proved that most hotels and motels still use a mix of conventional practises and online tools for customer service and communication. Lack of trust on both the part of the client and the supplier; security and privacy concerns; cultural norms; inadequate technology infrastructure; and external industry value systems all contributed to the Internet's limited adoption in several travel industries (Ma et al., 2003).

Behaviors that foster innovation in the tourism industry are the focus of Section 3.1.1.2. Hospitality and lodging establishments have vastly varying degrees of ICT adoption. Environmental, organisational, innovative, and perceived aspects of any applied technology may all play a role in this phenomenon, but they may not all be of equal importance. Small and medium-sized businesses (SMEs) face unique challenges when it comes to adopting new technologies due to a combination of limited resources, outdated infrastructure, inexperienced management, and limited funding. Although the quantity of new products and processes in the tourism industry is minimal, businesses in the sector normally have little trouble executing fresh ideas as fully working innovations. Inability to adequately defend these novel developments from outside threats is the root cause of the problems (Najda-Janoszka & Kopera, 2014). These inventions in the tourism business are very specialised in comparison to those in other fields because the end result is typically a blend of material and immaterial features (Cosma, Paun, Bota, & Fleseriu, 2014).

It has been hypothesised (Camisón & Monfort-Mir, 2012) and supported by data from Spanish hotels that tourism businesses are more focused on non-technical, commercial improvements. In that respect, customer innovation is the most significant development (Ganglmair- Wooliscroft & Wooliscroft, 2015).

Although tourism innovations are typically not technically oriented, many recent commercial and customer benefits have resulted from technological shifts adopted by consumers. ICTs continue to play an increasingly important role in the generation of new ideas (Aldebert, Dang, & Longhi, 2011). People who use a product or service are now integral cogs in the wheel of innovation. Many times they are the first to suggest lucrative new avenues for tourism-related businesses to explore (Williams & Shaw, 2011).

Users' input into service development. The growth of the Internet has benefited both businesses and consumers. Consumers can now make quick, informed decisions thanks to the ease of access to credible data. Online travel businesses and their consumers have become increasingly independent and savvy as a result of improvements in reservation systems and search engine quality (Hojeghan & Esfangareh, 2011). Companies in the tourism industry

have made great strides at reaching out to consumers in their "natural environment," which is increasingly virtual (Bizirgianni & Dionysopoulou, 2013). Some people, for personal reasons, prefer to perform their actual "shopping" in physical stores and utilise the Internet mainly for research.

Hospitality businesses have recently been compelled to provide mobile hotel reservation (MHR) systems and services in response to the rising number of active mobile Internet users. The perceived value of MHR was investigated by Wang and Wang (2010). After surveying guests at a few different hotels in Taiwan, they zeroed down on two key criteria that affected how many guests used MHR. Most findings suggested that the quality of the information provided could be the most influential factor. By implementing an MHR system, hotels can give their guests directions, real-time traffic reports, and other relevant information beyond just room reservations.

This study by Wang, Li, Li, and Zhang (2016) analyzed the intrinsic motivation of resorts and hotels should install MHR systems. They found that MHR adoption could not be reliably predicted by factors such as having a relative advantage, having the backing of upper management, being under intense pressure to compete, or having a wealth of available information. However, they found that other factors, such as compatibility, complexity, firm size, and technological skill, might have a greater impact.

Organizations in the tourism industry encounter numerous difficulties when using m-tourism technologies. To begin, the systems need to process a large influx of data pertaining to tourists, create directions for both indoor and outdoor settings, and accommodate for the various needs of existing mobile platforms. In their work, Rodriguez-Sanchez, Martinez-Romo, Borromeo, and Hernandez-Tamames (2013) define the GAT platform as an approach to addressing all three issues.

Managers may now build autonomous, context-aware mobile apps on the GAT platform without the need for coding knowledge or extra work in uploading fresh data. The creation of a similar platform will aid SMEs in adopting cutting-edge ICT-based tactics while altering the very character of the industry as a whole.

Because of the proliferation of mobile devices, travel businesses now have a fresh avenue through which to connect with customers while they're on the go. With regards to geographical location, mobile technology, and geographic data

Geographical information systems (GIS) also have a substantial impact on tourism-related data-gathering techniques (Yang & Hsu, 2015). Context-aware programmes improve tourist navigation and trip planning, hence these gadgets are popular (Tussyadiah & Zach, 2012). In order to combine the benefits of a 3D map-based interface with information given to the user based on his location, Noguera, Barranco, Segura, and Martnez (2012) proposed a 3D-GIS

recommend-er system tailored to mobile devices. Customers view location/context aware solutions as essential because they are accustomed to and expect this form of communication. Mobile advertising in a social context. In addition, social context mobile (SoCoMo) marketing has emerged as a potent force capable of revolutionising the business landscape at large (Buhalis & Foerste, 2015). Potential clients' reliance on the advice of their peers when making travel decisions was bolstered by the ever-expanding presence of virtual communities. Modern marketers can't live without mobile apps and other mobile technology, not to mention the different social media platforms.

Mariani, Di Felice, and Mura (2016) surveyed Italian DMOs to learn more about their strategic Facebook use (DMOs). The results of their research show that different businesses use social media in different ways and at varied frequencies. The authors show that DMOs' Facebook engagement metrics improve when users share comments of moderate length that are accompanied by visual content.

Yoo and Kim (2013) conducted a similar study, looking into whether or not state tourism websites in the United States featured online newsrooms like Facebook, Twitter, YouTube, or Flickr. The authors observed flaws in the ways in which organisations disseminate this newsroom content despite the high availability ratio. Only a subset of them have functional RSS feeds or e-mail forwarding capabilities.

While several studies have looked at how the Internet and social media have impacted tourism marketing and communication, shockingly few have looked at how online advertising has fared. The Internet advertising strategies of Taiwanese travel businesses were studied by Wu, Wei, and Chen (2008). They concluded that the user's perspective on online banner advertisements and his interest in the advertised product both have a significant role in the ad's effectiveness.

Travel agents could put more effort into the layout of their advertisements if they want to improve these two metrics. Distributed images with accompanying text, for instance, are more likely to generate interest in the advertised product. Text written in the target audience's native tongue also encourages them to spend more time with the visuals (Li, Huang, & Christianson, 2016). It's possible that the mix of services provided (hotel + restaurant) moderates the impact of the marketing. As Park and Nicolau (2015) point out, the impact of advertising is magnified when it is consumed in groups rather than individually.

The majority of the papers we looked at dealt with the use of ICT in the tourism industry, and the implementation of websites, the quality of those websites, and the design of their user experiences were all key points of discussion. Results from the substantial research conducted on this topic warrant a dedicated .

Marketing online in the hospitality industry can be improved by learning how customers see innovative technologies. E-loyalty to websites and e-services supplied by lodging

establishments is currently a major area of study, as is the identification of dimensions that influence online purchase behaviour.

Establishing a loyal online following of customers. The purpose of the research conducted by Kim, Lee, and Hiemstra (2004) was to ascertain if a customer's devotion to a specific online virtual community influenced their decision to purchase a specific travel product. The authors offered a set of qualities that business websites should have in order to promote client loyalty, with the use of a metric that measures community factors (influence and relatedness, Integration, satisfaction of demands, and shared emotional connection). They highlight the importance of encouraging current and previous clients to engage with the facility's online profile. Users can share their thoughts and impressions of the facility or the location in a public setting, such as a forum, online guestbook, or chat room.

Radu and Dobrescu (2014) used internet data to evaluate vacationers' happiness. Their hypothesis was tested using multivariate analysis, which confirmed what we already knew: that higher levels of satisfaction with the information found are associated with a higher likelihood of making a purchase. Multiple aspects, including effectiveness, dependability, accessibility, and security, contribute to the overall impression of an e-quality. service's Roger-Monzó, Mart-Sánchez, & Guijarro-Garca (2015) found that the quality of an e-service had a favourable impact on customer loyalty and the value of the resulting website relationship.

The customer's culture may moderate the impact of e-service quality. These cross-cultural distinctions in loyalty creation processes are important for managers to take into account when seeking to influence international tourism (Belanche Gracia, Casaló Ario, & Guinalu Blasco, 2015).

Studies on e-service quality, customer happiness, and loyalty in the context of online reservation were conducted in the United Arab Emirates by Mouakket and Al-hawari (2012). The findings support the authors' contention that enhancing the quality of online reservation services will make customers' experiences with this technology more positive and, in turn, foster a deeper commitment to the brand. The findings of Zehir, Sehitoglu, Narcikara, and Zehir (2014) are consistent with these findings. Subjective variables also play a role in determining the loyalty of a company's customers.

The Implications of eTrust (3.1.2.2) eTrust is often cited in the scholarly literature as one of these crucial components. Chinese online travellers' intentions to book using hotel websites were analysed by Wang, Law, Hung, and Guillet (2014). According to the data, patrons only partially trusted the claims made by the hotel's website and staff. Additional research confirmed that eTrust is a multifaceted concept with three interrelated parts: trustworthiness, generosity, and competence. Customers must be assured of a particular level of reliability in the design of a website for them to trust the claims made about its services. Benevolence

implies a serious dedication on the part of care providers to deliver the highest quality of service regardless of financial gain.

An emotional investment in the hotel website is fostered as a result of this dedication, as stated by Wang et al. (2014). Unexpectedly, the quality of a travel service did not play a major role in establishing credibility in digital spaces. The authors further by saying that because of the personal nature of the information they collect, travel-related websites face a higher content risk, which in turn prioritises privacy and security over the quality of the services they provide. Moreover, Kim and Srivastava (2007) showed that customer satisfaction and customer loyalty were significantly influenced by network performance (i.e., download and up- load speed). Many other factors, such as the opinions of the online community or the popularity of a certain website or brand, may also play a role in shaping a consumer's intent to buy. In their study (which centred on fast food restaurants), Hwang, Yoon, and Park (2011) analysed the cognitive and emotional reactions of website visitors to advertising. They conclude that this reaction improves people's perceptions of both the website and the brand. Moreover, their findings lend credence to the idea that cognitive (information-based) responses are more crucial than emotional ones.

Since e-loyalty, e-quality, and e-satisfaction are the antecedents of both purchase and recurrent purchase, they have been continuously analysed in relation to e-retailing. However, in the tourism industry, such connections have not been thoroughly articulated in terms of the digital realm.

Electronic word-of-mouth

Consumers are influenced by interpersonal communication and social learning paradigms, which lead them to mimic the behaviours of others. The procedures outlined herein Word of Mouth (WOM) refers to the dissemination of information and opinions about a product or service from current customers to prospective ones through an intermediary (Hawkins, Best, & Coney, 2004). Many studies have shown a correlation between positive word-of-mouth (WOM) and increased sales in the hospitality business. Morgan, Pritchard, and Piggott (2003) of New Zealand studied the impact that unfavourable reviews left by unhappy visitors had on the tourism industry there. They showed how destructive the effects of negative WOM can be on a community's reputation.

Several digital technologies exist in the online world that can be used to control the word-of-mouth stories people tell about your company and how it affects your relationships with others. However, the level to which each tool is effective might vary depending on its unique characteristics, such as the media's support for real-time vs delayed information exchange or the kind of interpersonal connections that can be forged through their use (Litvin, Goldsmith, & Pan, 2008).

Word of mouth as we know it has been revolutionised by the rise of digital media. There are three main problems that Dellarocas (2003) identifies: The Internet and other forms of

instantaneous communication have made it possible for WOM to multiply and spread at an unprecedented rate; 2) new communication styles and formats have emerged, which not only boost the power of virtual WOM but also provide the marketers with new control tools; and 3) the increased anonymity generated by the Internet has opened new possibilities for the spread of false information. The economic activities of hospitality units are affected in two ways by the difficulties brought about by the proliferation of electronic word of mouth: positively, if the units take a highly responsive approach, or negatively, if they do not.

The eWOM Integrative Model describes a holistic approach. Integrating word-of-mouth marketing, destination perception, and visitor sentiment, Jalilvand, Samiei, Dini, and Yaghoubi Manzari (2012) suggested a model. The authors of the research aimed to determine whether or not eWOM influences (1) the perception of a destination among potential visitors, (2) the way in which those potential visitors felt about the destination, and (3) the overall success of the destination.

Regarding your plans to travel, point #3. The test results validated eWOM's significance and demonstrated its impact on the aforementioned three dimensions. Since eWOM is more influential than commercial dissemination, the authors suggest encouraging its creation through online communities established on facility websites. Similar findings were observed by Mauri and Minazzi (2013), who investigated the impact of online hotel reviews on prospective guests' decision to book.

Therefore, it is imperative that managers become well-versed in the art of managing online reviews as an integral part of modern Internet communication. Comments from customers provide a wealth of information because they describe actual events (Bilgihan, Barreda, Okumus, & Nusair, 2016). Just as crucial as the manner in which these comments are shown across numerous websites is the means by which they are responded to (Marchiori & Cantoni, 2015). Managers and marketers need to know how to handle negative feedback, as it is evidence to potential guests that the hotel or other accommodation facility cares about their satisfaction (Kim, Lim, & Brymer, 2015).

Customers base their evaluations of a business on the average ranking of a peer group's experience with the same type of service, as demonstrated by Kim and Canina (2015). Finally, it seems that customers react more strongly to negative references (Filiari, Alguezaui, & McLeay, 2015). User-generated content can now be easily and quickly analysed thanks to big data analytics (Marine-Roig & Anton Clavé, 2015). However, not every data obtained from social media platforms is necessarily helpful. Most content uploaded by users has a high visual component and little informational value (Munar & Jacobsen, 2014).

Consumer information seeking on the Semantic Web

Changes in the hospitality business might be partially attributable to the maturation of Semantic Web technology. The goal is to create a cross-system infrastructure that integrates information from different sources, thus it's important to put a lot of emphasis on

categorising (tourism and hospitality) data using systems that link basic keywords and conceptual links. The use of semantic markup in these kinds of systems improves adaptability, precision, and timeliness (Prantner, Ding, Luger, Yan, & Herzog, 2007).

By giving machine-processed metadata a semantic meaning, websites can provide material that is more suited to the specific context in which it is being viewed. Because visitors to a destination sometimes have no clue what they want to find when they browse the Internet, a simple keyword search may not be adequate when looking for information relevant to tourism (ech & Bure, 2009).

The overarching goal of search engine optimization (SEO) is to improve a website's visibility in search engine results pages (SERPs) and keep it there (Lawrence & Giles, 1998). Researchers in the tourism industry often examine the queries (keyword strings) that people use to get specific information about trips and locations (Pan & Fesenmaier, 2006).

Recent studies have shown that there are two main steps to any search: 1) coming up with a set of relevant keywords to use in your query, and 2) analysing the returned results. According to research conducted by Xiang, Wober, and Fesenmaier (2008), the average length of a query question entered by a potential tourist does not surpass four keywords. Similarly, only the results on the first two pages of a search are often considered relevant or "worth further inquiry" by the vast majority of users.

Data from search indexes has potential as a tool for forecasting traffic. To improve the accuracy with which client volumes may be predicted, Yang, Pan, Evans, and Lv (2015) suggested a search query selection mechanism. Low-cost demand analysis tools could be developed using search engine data for hospitality establishments. The original notion that ranking highly in search results is advantageous has been supported by several research examining search characteristics and the search behaviour of potential customers.

In spite of this, having a high placement is not sufficient. When the condition is met, If the results presentation (snippets of text) is irrelevant, users will not continue on to the website's content. Despite this fact, search characteristics may change depending on the search interface's design (e.g., the number of images presented and their arrangement) (Pan, 2015).

It's not uncommon for those looking for travel information to conduct a quick online session. Xiang and Pan (2011) conducted a meta-analysis and found that when people search for travel information online, they utilise a restricted set of terms and ask highly similar questions. Information about where to stay and how to get around is a common topic for web users. There are certain generalisations that can be made, yet each case has its own unique Systems that recommend things to you. One issue that has come up as a result of the rise of e-tourism is that the amount of information available to a potential consumer might be overwhelming. Because of this informational glut, many vacationers turn to supplementary materials. Known as "recommender systems," these resources reassure buyers by breaking

down lengthy blocks of content into digestible chunks of text based on the customer's most pressing concerns (Buhalis & Law, 2008). The purpose of recommender systems is to tailor the user's exposure to content to their specific interests. (Borràs, Moreno, & Valls, 2014) These systems take into account both the direct input from the user and any inferences drawn from that input to better understand the user's intentions and goals. Collaborative filtering, content-based filtering, knowledge-based filtering, demographic filtering, matrix factorization, and hybrid recommender systems are some of the six types of recommender systems described by Gavalas, Konstantopoulos, Mastakas, and Pantziou (2014).

As a result of their ability to provide a high degree of customization and partially forecast customers' wants, recommender systems have quickly become an integral aspect of the e-commerce industry. Research on this subject focuses mostly on the design processes for such systems (Garcia, Sebastia, & Onaindia, 2011) and assumes at least some familiarity with computing (Yera, Castro, & Martnez, 2016; Gan, 2015).

Nilashi et al. describe one of the newest designs for a recommender system (2015). Utilizing a Gaussian mixture model, Expectation-Maximization (EM) algorithm, and Adaptive Neuro-Fuzzy Inference System, they created a multi-criteria collaborative filtering approach (ANFIS). The experimental data suggests this recommender system has a good degree of precision.

The role of e-intermediaries

The growth of ICTs has had undeniably favourable consequences on the tourism sector and on the outlook for the hospitality business. Even so, there continue to be drawbacks. Distributional structures and the function of distribution chain intermediaries like travel agencies and tourist information centres have been altered as a result of the market's increasing globalisation and individualization.

Lyu and Hwang (2015) found that the demand for services provided by travel information centres dropped by 27.6 percent after the advent of internet search for information. Interestingly, by adjusting to the new environment and using internet technologies to disseminate, these unfavourable outcomes may be avoided altogether. Lyu and Hwang's findings imply that introducing social networks could significantly enhance the current scenario.

Social media users are more likely to travel within their own country than those who don't. Concentrations of new material. Users of social media sites are more inquisitive than ever before because of the ease with which they can now broadcast their travels and hear about others' adventures in real time.

In addition to other factors, the level of competition increased. The travel industry was particularly affected. Travel companies had difficulties adapting to clients' demands and expanding their offerings into the digital realm. Andreu, Aldás, Bigné, & Mattila (2010)

noted that the new company model incorporated e-procurement tools alongside intricate e-commerce techniques.

In order to compete in the modern marketplace, middlemen have had to upgrade their information and communications technology (ICT) infrastructure and recognise the increased importance of the customer. Only those agencies that embrace the e-business model will likely be successful going forward, as stated by Lin, Lee, and Chen (2009). As a result of these shifts, numerous online travel firms and booking portals have emerged, the primary function of which is to provide advice before moving on to product distribution.

Many hotels form partnerships with local attractions and increasing their market share, online travel agencies (OTAs) are trying to attract more customers. Here, the customer has two options for making reservations: the hotel's own website or the OTA's. When a room is booked through an OTA, the OTA is paid a commission (Ling, Dong, Guo, & Liang, 2015). However, the OTA loses out in this arrangement because customers would rather go directly to the hotel's website for additional details (Guo, Zheng, Ling, & Yang, 2014).

Hotels' internal drives to work with online travel agencies were investigated by Ling et al. (2014). Their research showed that hotels with lower occupancy rates were more likely to use an OTA to broaden their marketing and distribution efforts. As an added bonus, hotels are more likely to work with OTAs that have a large online following and customer base but a limited number of listed properties.

Web presentation

To compete in today's burgeoning online retail market, it's essential to establish a web presence. Scaglione, Schegg, and Murphy (2009) found that putting up a website for a hotel or motel on their own domain or in a portal increased income. Adoption rates of websites may differ depending on their star rating and the It's inevitable that businesses will establish an online presence in order to compete in the growing e-commerce sector. Scaglione, Schegg, and Murphy (2009) showed that creating a website on an owned domain or in a portal increases the revenue of lodging establishments. It's possible that hotels of different categories and star ratings have different rates of website adoption. Although Salavati and Hashim's (2015) study primarily looked at how quickly hotels in Iran were adopting websites, they found that rates of adoption were almost the same across all types of establishments.

Salavati and Hashim's findings confirmed what many people had suspected: that many facilities' e-marketing plans stalled following the launch of their websites. The average hotel website's page rank was quite poor, and half of the sites we checked had barely been updated. We can extrapolate from these findings that some travel businesses, despite having an internet profile, use it mostly for marketing and not for actual e-commerce. That could not be enough in the current market. The American research group Li, Wang, and Yu (2015) conducted a very similar investigation. The majority of the hotels in the study were more

interested in developing new communication tactics and disseminating information than in fostering relationships with guests.

In terms of website functionality, hotels and similar businesses have several options. Based on their examination of persuasive aspects, Daz and Koutra (2013) classified hotels into four groups: (1) interactive hotel chains; (2) promotional efforts and informative hotel chains; (3) minimally persuasive hotel chains; and (4) credible and easy to navigate hotel chains.

The efficiency of a website. The elements of a website contribute to the formation of a facility's image and may even alter the destination's overall image. The experimental design developed by Rodriguez-Molina, Fras-Jamilena, and Castaeda-Garca (2015) allows for the manipulation of message type and information overload on websites. As has been shown in numerous other research, this one also demonstrated that the Internet is the most convincing channel for destination marketing. The results also highlight the significance of delivering just the right amount of information on the website, as overwhelming consumers with too many options and choices is counterproductive.

Managers and marketers need to consider both the practical and emotional aspects of online purchasing to guarantee the site's success. Successful management of both dimensions, as stated by Bilgihan and Bujisic (2014), is associated with better conversion rates for e-commerce websites. Hedonic qualities help elicit feelings and dedication. Those who adhere to the utilitarian tenet are more likely to make educated choices. The authors suggest that hotels include interactive features like virtual tours, games, or the chance to produce some of the website content when designing their websites (Chung, Lee, Lee, & Koo, 2015).

In an effort to better understand and quantify the e-quality of tourism websites, recent studies have tended to include new quantitative approaches. It was advocated by Novabos, Matias, and Mena (2015) that a user-centered approach be taken when assessing the quality of tourism-related websites. Completeness of information, credibility of sources, usability, and persuasiveness are the four pillars upon which the authors' work rests. They pooled trustworthiness and persuasiveness into a single measure they call "influence," and used that to rank Filipino tourism websites with local travellers.

Structured model of Internet marketing communication for the tourism industry

Inns and hotels using the Internet for promotional purposes are part of a transparent network. In order to effectively implement their marketing strategy, hotel owners and marketers must first learn how to effectively engage with their surrounding community via the Internet (Xiang et al., 2015a; Nicolae & Sabina, 2012). Internet marketing is a dynamic system that responds to environmental variables and shifting market conditions, such as housing market movements, economic conditions, political climate, etc (Breukel & Go, 2009; Del Chiappa & Baggio, 2015).

Potential guests also engage with the local community as they investigate their lodging options, exchange recommendations, and share thoughts and experiences (Ganglmair-

Wooliscroft & Wooliscroft, 2015; Bilgihan et al., 2016). All of these processes have profound effects on both the parts and the whole of the system.

Every part of the present context can vanish and reappear in a flash, which is another key property of an open system. For example, when a new Internet technology becomes available soon, the complete system will need to be reconfigured and updated.

Before we can analyse the system's procedures and performance, we need to determine its constituent parts. We may identify the following as parts of Internet marketing communication in the hospitality industry: information technology (Internet, online tools, mobile devices); people and companies (hotels, guesthouses, etc.); customers (guests, visitors, and Internet users); and the Internet itself (potential customers). Basic Internet tools like websites or e-mail are included in the area of information technology, as are businesses offering services linked to search engines, portals, online advertising, and other aspects that may attract more clients.

Businesses, consumers, and internet users all behave in their own self-interest. Each of these systemic parts works together to provide for these wants and needs. Hotels are in the business of making money and want to do so while their guests are busy looking for things to do, places to see, or a place to stay for work. This system operates according to the same rules as a traditional supply-and-demand market, with the exception that much of the actual trading takes place in virtual space.

The virtual market, like its physical counterpart, tends to settle into a state of relative equilibrium. Therefore, the hotel industry's Internet marketing message should adhere to the same principles, with an emphasis on making the online experience more user-friendly and satisfying customers' needs as they search for information about lodging and travel.

The Internet's four systemic processes for the hospitality industry

We analysed online communication in the hospitality industry and came up with four key processes: reaching out to the right people, making a sale, using the product or service, and making necessary adjustments. Each operation's output is simultaneously representative of that of the subsequent process in the chain, demonstrating their mutual dependence.

Given that we assume that collected feedback and customer experience should trigger a response-reaction (Ganglmair-Wooliscroft & Wooliscroft, 2015) leading to adjustments in system components and their settings, it is clear that the entire internal systemic process is cyclical in nature, as shown in the scheme. Each of these operations, in particular.

Therefore, the presentation of the hotel should be viewed as an online storefront (Roger-Monzó et al., 2015).

Internet marketing tools (shown in Fig. 4) used on websites take the result of the "addressing the audience" process as input for the "conversion" that follows. Copywriting, referring, news and updates, tagging, and user-generated material all fall under this category. The final result of this procedure is the acquisition (or repeated acquisition), of trip packages or hotel booking services if the appropriate instruments are used. E-quality, e-loyalty, and e-satisfaction are three qualities that must be fostered at this time.

Managing marketing communication during the buying process is especially important because it might occur through a number of different channels. The first is exemplified by a booking form accessible on the venue's website. Selling products through dedicated servers, online travel agencies, or hotel search services is another choice (Ling et al., 2015).

The cycle continues after the consumer makes a purchase. Taking consumer input into account is crucial for a long-term business partnership. Specialized servers, accommodation search engines, online guest comment books, websites, and social networks are only some of the potential avenues for collecting feedback (Filieri et al., 2015).

Feedback is a control mechanism in cybernetics that compares actual or observed conditions to desired or target conditions. Our integrated input/output model makes it easy to pinpoint which parts of the communication process could use some fine-tuning. If, for example, the site's traffic hits the targeted

If your site receives a high volume of views but sales remain flat, it's likely because users aren't making full advantage of the features and resources available to them.

This method is sustainable on its own because the vast majority of input is provided automatically, with no extra work required from the hospitality establishments. Negative word-of-mouth (WOM) and a lack of trustworthy information given online will spell the end for businesses who provide subpar services or fail to communicate effectively. The only way for hospitality businesses to thrive in today's cutthroat market is to constantly monitor customer input, promote its generation, and adjust operations accordingly.

Case study 5: Applying a systematic paradigm to determine where a hospitality organization's online communication falls short.

Here we discuss the synthesis, the second step in the systemic approach. Our proposed systemic model is meant as a jumping off point for a more in-depth research, but we ultimately believe that each hospitality establishment requires a unique synthesis. Since the tools we've presented are all optional, customization is essential. In the hospitality industry, not every tool is necessary.

The data from the 60-room, 156-bed Hotel Y in Northern Bohemia were used to evaluate the model's practicality. Our research set out to identify any stumbling blocks in their network of

digital marketing and public relations channels and to suggest improvements in keeping with the tenets of the systematic approach. As a first step, we analysed how well our model predicted the outcomes of each process it accounted for. We compiled a list of the tools implemented by the hotel for each of the categories (inputs) shown in Fig. 2 and connected them to the metrics made available to us by Hotel Y. (Fig. 5).

Conclusions

This paper aimed to create a unified research framework out of the existing body of knowledge on Internet marketing communications in the tourism industry. Following Bertalanffy's General Theory of Systems, we dissected the components of the larger system that is online marketing communication in the hospitality industry.

That system's architecture was figured out by compiling data from several articles we located in the Science Direct library. Utilizing the QUITA lexical analyzer, we extracted six important themes from researchers' conversations to utilise as a jumping-off point for the system modelling.

We think our systematic, integrated approach will shed light on what aspects of online communication in the hotel sector are influenced by what outside forces. We zeroed in on how lodging establishments use web technologies at specific points in the process. Internal intentions of the systemic components (Internet users, visitors, hotels, etc.) are not fully captured by the model and should be the subject of another systemic study due to their complexity and diversity. We chose the relationships we describe because of their direct impact on the communicational needs of the virtual world, and they are the culmination of these individual and personal motivations.

Our model may be useful as a guide for business leaders looking to better manage their online operations, expand (or contract) their present suite of tools, and/or modify how they integrate those tools into their overall marketing approach. As the case study showed, systemic models are what really matter if hotels want to get a full picture of how their online marketing campaigns are faring. This paper's models give a conceptual framework for integrating the various marketing channels and activities that are often handled independently of one another.

Structural equation modelling would have been useful for validating the system, however we lacked sufficient data over a sufficient time span for the test period. We did, however, establish its credibility as a useful analytical tool.

Regarding scholarly contributions, we may say that our work successfully categorises existing information according to a variety of different themes. Also, it proposes new avenues for study in the field of Internet marketing communication for hotel businesses and gives a comprehensive framework to guide that study. Our study's fundamental shortcoming is that it is overly dependent on a relational framework that fails to account for the efficacy of

particular tools or their significance at different points in the process. The lone premise upon which the model rests is that commercial travel agencies routinely employ these methods in their promotional efforts. Many authors have corroborated the effectiveness of some tools for promoting tourism online, but there are no readily available rankings of these tools' efficiency.

We suggest studying the effects of the offered tools on consumer behaviour in the future not in isolation but rather in relation to all other tools. It's possible that combining multiple online elements into a single experience has a greater impact on users than using them separately. Market location and cultural norms may also be taken into account as potential game-changers. Systemic change as proposed Since the degree of ICT implementation varies by country, by sex, and by age group, any strategy on the level of online tools may require adaptation to conform to the norms of each nationality. The described tools' usefulness may also be contingent on the specifics of each company's travel department. A company's size, location, and the kind of services it offers (just accommodation, vacation packages, etc.) could all play an influence.

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