

# Website Evaluation of Travel Agencies Class A in Saudi Arabia and Egypt Using Extended Version of Internet Commerce Adoption Model: A Comparative Study

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**Abstract**—This research aims to explore how well the extended model of internet commerce adoption (eMICA) model is often used to determine the extent of internet commerce adoption in the travel agencies sector in both Egypt and Kingdom of Saudi Arabia (KSA). The web content analysis method was used to analyze the level of adoption of Egyptian travel agencies and Saudi travel agencies according to data immensely available on their websites. Therefore, each site was categorized according to the phases and levels proposed. In order to achieve this, 120 websites were evaluated by the two authors over a three-month period, from August to October 2020, and then categorized according to the phases and levels of (eMICA). The results show that there are deficiencies in the application of the eMICA model by both KSA and Egyptian travel agencies, generally, updating their websites, the absence of quality certification, offering secure online payment, virtual tours, and videos using Flash animation. In general, the Egyptian companies slightly outperformed the KSA ones in applying eMICA model.

**Keywords**—e-commerce, eMICA, Internet marketing, travel agencies, websites.

## I. INTRODUCTION

THE tourism industry has experienced massive changes in recent years due to the application of the latest technologies [1]. It has been one among the foremost affected by the development of modern technologies and the internet; mainly in the manner, travel enterprises distribute their services to the market [2]-[4].

It has become one of the most important services traded through the internet [5]. With quickly growing small business needs and changing business environment, it is more and more significant to be existent on the internet, particularly for small enterprises, which need to develop their businesses and contend in the tourism market [6], [7]. Therefore, it is no surprise that the amount of online tourism operators on the web has grown substantially over the past few years [4]. The tourism industry intensively uses information and communication technologies to distribute its services and to effectively communicate with tourists [5], [4]. Reference [8]

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notes that tourism may be a giant industry where “Tourism and technology go hand in hand together”. The latest growth in information technologies, particularly the popularity of the internet in the early 90s of the 20<sup>th</sup> century, has improved the way that tourism businesses interrelate with their clients [9].

A growing number of holidaymakers consider a website to be the main source of data when making the decision to travel [10]. Therefore, evaluating the efficiency of websites has become concern of professionals and researchers [11].

There are limited models to research website content. Some models do not require personal analysis but only necessitate the presence or non-existence of the particular website characteristics. One among them is eMICA [12], which comprises the basic consistent dimensions that a website should have [13].

EMICA can assist current or future decision making on the supply of more intensified features to upgrade website quality for enterprises. Although this model cannot be used for forecasting, it remains a worthwhile tool for individual organizations to gauge and monitor over time their net-readiness and for measuring the growth of the tourism activity [14].

There has been little research conducted to assess the quality of the websites of travel agencies, particularly in Egypt and Saudi Arabia. The findings of the study contribute to a far better understanding of the functionality utilized in travel agencies’ websites and ensure generally the convenience of the eMICA model for assessing the websites of travel agencies, with recommendations for developing the eMICA model in forthcoming studies. Additionally, this research offers recommendations for travel experts on how to plan effective websites.

Even though the richness of studies aimed toward extending our understanding of consumer acceptance of technology have been conducted in the past, few of them were applied to travel services by using the eMICA model. With the number of travel agencies offering and improving travel and tourism services quickly on the rise, it is an appropriate time to review the adoption of that model. Such a study will be of interest to both academics and travel agencies. Specifically, this study investigates the adoption of eMICA for corporate purposes.

This study aims to seek out how well eMICA can be used to measure the level of internet commerce adoption in the travel agency industry. This research also shows existing industry

standards in website design and usage of eMICA as a benchmarking tool. This research aims to compare the Egyptian travel agencies class A with Saudi travel agencies class A regarding applying eMICA as developed by [12]. The findings of the study contribute to a far better understanding of the evolving maturity of the websites of the travel agencies in both countries in terms of interactivity, functionality, and features used. The rest of this article is organized into the following sections: literature review, methodology, and conclusion.

## II. LITERATURE REVIEW

### *eMICA*

Reference [15] emphasized that website phases are denoted as layers, each covering certain characteristics. Research using assessment by phases assumes that the more experienced a business is in e-commerce, the richer its website is going to be. Commercial website growth normally initiates simply and develops over time with the accumulation of more functionality and complication as firms gain familiarity with e-technologies [16].

Reference [16] developed a model called MICA. MICA contains three stages, combining three levels of business process from the beginning (promotion) through consolidation (provision of information and services), to maturity (transaction processing) [17], [18]. It is the evolution from static to vigorous websites to add value through information managing and rich functionality [19]. The phases of growth offer a roadmap that point out where a business sector is in its growth of e-commerce application [17], [4]. Each stage includes various levels of website complication and functionality. These levels display the enterprise's growth from a merely static to dynamic website through growing degrees of interactivity that join the combination of a value chain and new applications that add value through information managing and better functionality [4].

### *The History of eMICA*

The e-MICA model was initiated by [16] to assess the status of e-commerce in the Australian metal fabrication industry. It is a model for gauging the advanced development of commercial websites consisting of three stages: a) web-based promotion; b) provision of information and services; and c) transaction processing [17]. Several levels of complexity have been added, adjusting MICA to the particularities of a cybernetic environment [20]. Since the innovative study in 1998, MICA was applied to the public sector [21] and tourism business [12] in Australia, resulting in its development as the eMICA model [17].

Since the first research in 1998, MICA has been applied to a number of sectors [12]. This has been prevalent in the tourism industry e.g. [22], [12], [14], [4], which has facilitated improving the original model with the eMICA model [23], [4].

Reference [12] later upgraded their model and renamed it extended MICA. It illustrates how businesses typically start by simple existence on the web. The functionality of the website

grows over time as the proficiency of the use of e-technologies improves [24], [12]. This model, which is grounded on an assessment by levels, simplifies the investigation of websites from a basic, promotional level to a more advanced level, which contains transactional processes [20], [17]. As sites transfer through the stages of development, layers of complexity and functionality are added to the site. This addition of layers is equal to the business moving from a static internet existence through growing levels of interactivity to a vigorous website including value chain incorporation and original applications to add value through information administration and rich functionality [17], [16]. Considering that the eMICA model responds to a process of gradual e-commerce acceptance, it might be possible to explore cases where a website may integrate elements from different stages of the model. This can make the classification complex sometimes [20].

### *Application of eMICA in the Tourism Industry*

EMICA has been utilized on many occasions to gauge the development stages of website design in tourism as well as in various other industries [16], [25], [14], [24]. Reference [26] used eMICA to examine which stages of application of www-based services are often observed in tourism small businesses.

Some authors state that this model is restricted because it tends to scale back the extent of complexity of research and that a website could be present on two levels at the same time, or even on none [27]. The features utilized in eMICA are quite almost like features used in other researches judging website design [28]. The only dimension missing in eMICA is confidence, but information and process, value-added, relationships, design and usability are included in some measures [24].

### *eMICA Phases*

EMICA includes a variety of layers of complexity of functionality within the three key phases [25], [24] to accommodate the wide range of e-commerce development shown in businesses such as those in the tourism sector [17]. The model consists of three stages: promotion, provision of information and services, and transaction processing [19]. In this extended model, the varied features provided in each stage were subcategorized into different sub-features. Information at the promotion stage was subcategorized into basic information and rich information [29], [23], [20]. The provision stage was sub-categorized into three layers: low interactivity, medium interactivity, and high interactivity, whereas the processing stage, was not subcategorized into any stratum [25], [18], [29], [30], [23].

The processing stage reflects the degree of functional maturity of the site, which allows on-line transactions [23]. This involves a higher level of security than the preceding stages in addition to user identification [29]. These stages show a pathway that points out the degree to which a specific business has developed e-commerce practices [20]. The model proposes that there are various stages in the development of a business's e-presence. While the first website is simple, over

time it becomes more complicated, including new processes, which are the result of accumulative experience and awareness in the usage of ICT [16], [31]. The eMICA model is summarized in Table I. Increased levels of interactivity are obvious as sites develop through each of the stages of the eMICA model [17], [12], [4].

TABLE I  
 eMICA [14]

eMICA	Examples of functionality
	Stage 1: Promotion
Layer 1-basic information	Company name, physical address, contact details, and area of business.
Layer 2-rich information	Annual report, email contact, information on company activities.
	Stage 2: Provision
Layer 1-low interactivity	Basic product catalog, hyperlinks to further information, online inquiry form.
Layer 2-medium interactivity	Higher-level product catalogs, customer support, (e.g., FAQs, sitemaps), industry-specific value-added features).
Layer 3-high interactivity	Chat room, discussion forum, multimedia, newsletters, or updates by email.
Stage 3: Processing	Secure online transactions, order status, and tracking, interaction with corporate servers.

#### eMICA STUDIES

Reference [14] applied eMICA to compare website features of New Zealand's regional tourism organizations. They divided eMICA into 14 scoring items to find out the website growth maturity. Reference [32] used eMICA as a criterion to discover external elements that affect the website content of small firms. That investigation employed five different external elements to determine the trends of long-term decisions on website content.

Reference [17] compared the utilization of web technologies by regional tourism organizations within the Chilean and Asia Pacific tourism industries using the eMICA model to determine the degree of application and level of web technologies for destination promotion. The finding revealed that the number of websites presenting stage 3 functionality (transaction processing) in Chile is more than the Asia Pacific region. Reference [33] studied how the characteristics of each website are judged by the e-users and found that the second and third most appreciated website dimensions for virtual bookers were the information facilities and contact information, respectively. Reference [26] applied eMICA to test stages practiced by small tourism business websites.

Reference [24] used the eMICA model to compare the website features and the e-commerce application of Finnish and European independent lodging establishments. The results recommend that eMICA is a worthwhile benchmarking instrument to test industry standards but it does not point out the phase of internet commerce adoption among the independent accommodation providers. These often-small companies may be active in e-commerce although they do not apply all stages of the eMICA model on their websites.

Reference [34] conducted a study to investigate variables affecting the adoption of e-commerce according to technological, organizational, and environmental basis and the eMICA model. An online survey was applied to a sample of

websites of small- and medium-sized Thai travel enterprises. Results showed that only competition intensity positively affected the promotion stage. Besides, relative benefit and organizational readiness affected positively the second stage of the provision of information and services. Finally, only organizational readiness was found to affect e-commerce adoption in the processing stage.

Reference [35] proposed an approach for benchmarking the export readiness of websites in the tourism industry. Using psychic distance theory, they suggested a staged approach to international e-readiness in parallel to the stages of the eMICA business process model. They explored two extensions of the eMICA model to contain export readiness and features of the social web.

Reference [20] used the eMICA model to discover the rate of development of French and Spanish ski resort websites. Results showed that, although alpine ski resorts generally, and those in France predominantly, are well organized, they still have to make simpler communication that is more dynamic and interactive with their e-consumers. A minority of them provide information on ecological certifications and snowmaking.

### III. METHODOLOGY

#### A. Sample and Data Collection

For the purposes of the study, 120 websites were evaluated by the two authors over a period of three-month from August 2020 to October 2020, and then categorized according to the stages and levels of the eMICA.

The URLs of Egyptian and Saudi Arabian travel agencies were obtained from the following search engines and directories:

- Google Internet Search Engine [www.google.com];
- Yahoo [www.yahoo.com];
- Egyptian Ministry of Tourism;
- Saudi commission for tourism and national heritage. [https://scth.gov.sa/Pages/default.aspx#4];

The directories are considered the most detailed and current source of data in the travel agencies' businesses. Each website was given an alpha identifier to help reference and presentation of results. The data were gathered by the method of observation of the key features of each website. The eMICA [14] was used to guide the collection and analysis of the data.

#### B. Questions of Study

- 1) To what extent the eMICA model is applied by both the Saudi and Egyptian travel agencies.
- 2) Are there significantly differences between the Saudi and Egyptian travel agencies regarding their application the eMICA all over its three stages?

#### C. Instrument

Web content analysis was conducted on the selected 120 web pages. Each site was tested in detail and different features on the site were identified. This study is only interested in the levels of eMICA, and only measures used were ordinal,

meaning the website either has the feature or does not have the feature. In this study, the following functionalities were used to measure the adoption of internet commerce: In eMICA layer 1 of stage 1, consists of contact details, last update, company location (basic information); layer 2-rich information consists of email address, more than one language, quality certifications, events, and promotions. Layer 1 of stage 2 is low interactivity. In this study, it includes links to internal information, links to external information, and links to company activities, complete season calendar, terms, and conditions of use. Layer 2 of stage 2 is medium interactivity. It includes web map, webcam, probability of booking accommodation, possibility of purchasing passes, downloadable brochures and/or materials and/or photos, possibility to sign up to receive news by email, privacy policy or legal notice, online surveys, FAQs, suggestions, search function (by keywords). Layer 3 of stage 2 is high interactivity. It includes customer/partner area, interactive trail map, multimedia applications, blogs, forums and/or chat features, newsletters, access to the social media profiles, possibility to collect online reviews from customers, rate the quality of/their satisfaction, tourism service review websites, virtual tour, videos using flash animation, mobile version of the website and downloadable mobile app.

The last and third stage in the eMICA model is processing. The processing stage consists of complete purchase, complete purchase process in the online shop (other products), comprehensive purchase process for lodging, secure online transactions, and interaction with the server. The chi-2 coefficient was applied to investigate the differences that were determined by transforming the chi-squared distribution. The scale was prepared according to [12], [14], [36], [29], [24], [37].

#### D. Reliability of Scale

Cronbach's alpha was used to assess the internal consistency of a scale (or survey) that is made up of multiple Likert-type scales and items to examine e-commerce adoption by Egyptian and KSA travel agencies. The scale contains about 43 items that compose the eMICA model's three phases.

TABLE II  
 RELIABILITY STATISTICS

Items	Cronbach's Alpha
Stage 1: Promotion	
Layer 1-basic information	0.845
Layer 2-rich information	
Total Average	0.846
Stage 2: Provision	
Layer 1-low interactivity	0.839
Layer 2-medium interactivity	0.841
Layer 3-high interactivity	0.838
Stage 3: Processing	0.841

All items are responded to on a Likert scale of 1-2, where 1 = applied and 2 = not applied. To establish whether the items on this scale all reliably measure the same construct, we surveyed 120 websites, so as to calculate Cronbach's alpha

based on their scores. The results in Table II indicated that no item was eliminated from the analysis since all items scored higher than 7; therefore, the scale is very reliable.

## IV. RESULTS

Table II shows the absolute values of significant differences according to the chi-2 coefficient.

### A. The First Stage: Information

#### 1. Level 1: Basic Information

1. Contact details: There are no statistically significant differences between the Egyptian and the Saudi tourism companies. The vast majority of both the Egyptian and KSA tourism companies provide contact details equally on their website.
2. Last update: There are no statistically significant differences between the Egyptian and the KSA tourism companies at a significant degree of 1.000. It seems that both of them did not update their websites regularly equally.
3. Company location: The Egyptian travel agencies' websites (29.2%) percentage which provides information about company location were better than the KSA one (26.7%). There are no statistically significant differences between the Egyptian and the KSA tourism companies, at a significant degree of 0.581.

#### 2. Level 2: Abundant Information

1. E-mail address: Egyptian tourist companies outperform KSA tourism companies by a slight percentage. Therefore, there is no statistically significant difference between the two of them at a significant degree of 0.402.
2. More than one language: About two-thirds of the whole sample 35% of the Egyptian companies and 26.7% of the KSA companies do not provide their websites in more than one language. There is no statistically significant difference between the two of them at a significant degree of 0.060.
3. Quality certification: most of the sample did not provide a quality certification on their website at a rate of 93.3%. There are no statistically significant differences between the sides at a significant degree of 0.402.
4. Events: More than a quarter of the whole sample does not provide any news about events. There are no statistically significant differences between the Egyptian and the KSA tourism companies at a significant degree of 0.827.
5. Promotion: About a fifth of the Egyptian travel agencies provide promotions on their website and less than a third of the KSA travel agencies. There is no statistically significant difference between the two types at a significant degree of 0.068 as indicated in Table III.

#### Phase 2

The levels of complexity revealed on the websites developed to the second stage were different significantly across the three levels. Functionality varied from simple to high-level service lists, value-add hyperlinks, and low-level to

advanced client support systems (virtual survey forms, FAQs, sitemaps). Business-specific value-added features such as multimedia managements of the distinctive features of the area, simulated tours, and static to interactive maps, dialogue rooms, discussion forums, bulletins, and automatic email updates were also apparent.

TABLE III  
EMICA ITEMS BY COUNTRY (PHASE 1)

Items	Chi-2	
	Value	Asymptotic Significance (2-sided)
Layer 1		
Contact details	0.000a	1.000
Last update	0.000a	1.000
Company location	0.304a	0.581
Layer 2		
Email address	0.702a	0.402
More than one language	3.525a	0.060
Quality certifications	0.702a	0.402
Events	0.048a	0.827
Promotions	3.337a	0.068

TABLE IV  
EMICA ITEMS BY COUNTRY (PHASE 2)

	Phase 2	
	Value	Asymptotic Significance (2-sided)
Level 1		
Links to internal information	1.714a	0.190
Links to external information	1.714a	0.190
Links to company activities	0.960a	0.327
Complete season calendar	5.057a	0.025
Terms and conditions of use	1.875a	0.171
Level 2		
Web map	1.365a	0.243
Possibility of booking accommodation	5.647a	0.017
Possibility of purchasing passes (passes only)	2.911a	0.088
Downloadable brochures and/or materials and/or photos	6.708a	0.010
Possibility to sign up to receive news by email	0.136a	0.713
Privacy policy or legal notice	0.000a	1.000
Online surveys	1.008a	0.315
FAQs	5.926a	0.015
Suggestions	0.076a	0.783
Search function (by keywords)	0.635a	0.426
Online store (as showcase)	6.316a	0.012
Level 3		
Customer/partner area	1.263a	0.261
Multimedia applications	4.104a	0.043
Blogs, forums and/or chat features	1.742a	0.187
Newsletters	0.845a	0.358
Access to the social media profiles	4.232a	0.040
Possibility to collect online reviews from customers	0.300a	0.584
Rate the quality of/their satisfaction	0.300a	0.584
Tourism service review websites	2.476a	0.116
Virtual tour	9.130a	0.003
Videos using Flash animation	5.910a	0.015
Downloadable mobile app	.342a	0.559

The fact that the vast majority are at stage 2 is evidence of

the low rate of functional maturity achieved by the travel agencies in the improvement of their websites. This revealed a certain movement from a static perspective to a vigorous website with growing levels of e-interactivity as shown in Table IV.

### B. The Second Phase: Provision "Dynamic Information"

#### 1. Level 1: Low Level of Interactivity

- 1) Links to internal information: About the third of the sample which provides links to internal information belong to the Egyptian tourism companies whereas more than one quarter, which belongs to the KSA ones provide links to internal information. The chi-2 result showed that there is no statistically significant difference between the two types at a significant degree of 0.190.
- 2) Links to external information shows the same results as the links to internal information.
- 3) Links to company activities: More than 85% of the sample studied provides links to the company activities with slight excellence for the KSA travel agencies compared to the Egyptian ones. There is no statistically significant difference between the two types at a significant degree of 0.327.
- 4) Complete season calendar: The minority of travel agencies provides a complete season calendar (9.2%) for the Egyptian travel agencies and 18.3% for the KSA companies. Therefore, the chi-2 results show that there is a statistically significant difference between the two of them at a significant degree of 0.025.
- 5) Terms and conditions of use: A high percentage of the sample did not determine the terms and condition of use of the website at the rate of 37.5% for the Egyptian travel agencies and 42.5% for the KSA travel agencies. There is no statistically significant difference between the two of them at a significant degree of 0.171.

#### 2. Level 2: Average Level of Interactivity

- 1) Web map: Most of the travel agencies provided a web map at the rate of 45.8% for the Egyptian companies and a little more for the KSA companies 48.3%. However, there is no statistically significant difference between the two types at a significant degree of 0.243.
- 2) The possibility of booking accommodation: A little more than of the sample provides the possibility of booking accommodation with excellence for the Egyptian side (31.7%) on the KSA one (20.8%). Therefore, the chi-2 result shows that there is a statistically significant difference between the two types at a significant degree of 0.017.
- 3) The possibility of purchasing passes: Most of the travel agencies do not have the availability of purchasing passes at the rate of 46.7% and 41.7% of the Egyptian and the KSA tourism companies respectively. There is no statistically significant difference between the Egyptian and the KSA tourism companies "class A", regarding the possibility of purchasing passes at a significant degree of 0.088.

- 4) Brochures and/or materials and/or photos: most of the members of the sample provide downloadable brochures and/or materials and/or photos at a rate of about 43.3% for the Egyptian tourism companies and 33.3% for the KSA tourism companies. Therefore, there is a statistically significant difference between the two types at a significant degree of 0.010.
  - 5) Possibility to sign up to receive news by email: Less than half of the sample provides the possibility to sign up to receive news by email at the rate of 20.8% and 22.5% of the Egyptian and the KSA tourism companies respectively. There is no statistically significant difference between the two types at a significant degree of 0.713.
  - 6) Privacy policy or legal notice: The Egyptian and the KSA tourism travel agencies were equal in providing their websites with the privacy policy or legal notice by 41.7% for each sample separately. On the other hand, 8.3% of each sample does not apply that procedure. There is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 1.000.
  - 7) Online surveys: Almost all the surveyed travel agencies provide online surveys at a rate of 49.2% and 50% of the Egyptian and the KSA tourism companies respectively. There is no statistically significant difference between the two of them at a significant degree of 0.315.
  - 8) FAQ: A high percentage of the sample does not provide FAQ at the rate of 41.7% and 48.3% of the Egyptian and the KSA travel agencies respectively. There is a statistically significant difference between the two of them at a significant degree of 0.015.
  - 9) Suggestions: A high percentage of the sample allows clients to present suggestions on the website at the rate of 43.3% and 44.2% of the Egyptian and the KSA travel agencies respectively. There is no statistically significant difference between the two types at a significant degree of 0.783.
  - 10) Search function: About one-third of the travel agencies provide a search function on their website with a rate of 16.7% and 13.3% of the Egyptian and the KSA tourism companies respectively. While 33.3% and 36.7% of the Egyptian and the KSA tourism companies do not provide that respectively. There is no statistically significant difference between these two types at a significant degree of 0.426.
  - 11) Online store: About 95% of the surveyed travel agencies do not provide online stores at the rate of 45% and 50% of the Egyptian and the KSA tourism companies respectively. The chi-2 result shows that there is a statistically significant difference between the two of them at a significant degree of 0.012.
3. Level 3: High Level of Interactivity
- 1) Customer/partner area: The vast majority of the sample does not provide a customer/partner area at the rate of 41.7% and 37.5% of the Egyptian and the KSA tourism companies, respectively. There is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.261.
  - 2) Multimedia applications: Less than three-quarters of the surveyed travel agencies at the rate of about 40% and 31.7% of the Egyptian and the KSA tourism companies respectively provide multimedia applications on their website. According to the chi-2 result, there is a statistically significant difference between the two of them at a significant degree of 0.043.
  - 3) Blogs, forums and/or chat features: 34.2% of Egyptian and 28.3% of KSA tourism companies offer these features on their website, while 15.8% of the Egyptian and 21.7% of KSA tourism companies do not. According to the chi-2 result, there is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.187.
  - 4) Newsletters: Less than half of the overall sample sends newsletters to clients about 20% and 24.2% of the Egyptian and the KSA tourism companies respectively. There is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.358.
  - 5) Access to the social media profiles: 35% the Egyptian travel agencies have access to the social media profiles against 25.8% of the Saudi ones. Therefore, the chi-2 results showed that there is a statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.040.
  - 6) Possibility to collect online reviews from customers: Less than half of the travel agencies provide the possibility to collect online reviews from customers with slight excellence for the Egyptian travel agencies. So, according to chi-2 result, there is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.584.
  - 7) Rating the quality of/their satisfaction: Nearly 50% of the sample provides the possibility to rate the quality of/their satisfaction with a slight excellence for the KSA tourism companies. Therefore, according the chi-2 result, there is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.584.
  - 8) Tourism service review websites: The minority of the sample provides tourism service review websites, at the rate of 13.3% and 7.5% of the Egyptian and the KSA tourism companies respectively. While 36.7% and 42.5% of the Egyptian and the KSA tourism companies do not provide that respectively. There is no statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.116.
  - 9) Virtual tour: The vast majority of the sample did not provide a virtual tour at the rate of 32.5% and 44.2% of the Egyptian and the KSA tourism companies, respectively. Therefore, there is a statistically significant difference between the Egyptian and the KSA tourism companies.
  - 10) Videos using Flash animation: The majority did not

provide videos using flash animation at the rate of 30.8% and 40.8% of the Egyptian and the KSA tourism companies, respectively. Therefore, there is a statistically significant difference between the Egyptian and the KSA tourism companies at a significant degree of 0.015.

- 11) Mobile version of the website: The vast minority of the Egyptian and the KSA tourism companies provide a mobile version of the website at the rate 1.7% and 0.8%, respectively. This is confirmed by the chi-2 result, which showed no statistically significant differences between the Egyptian and the KSA tourism companies.
- 12) Downloadable mobile app: Almost no surveyed companies provide downloadable mobile applications at the rate of 48.3% and 49.2% of the Egyptian and the KSA tourism companies, respectively while just 1.7% of Egyptian and 0.8% of the KSA tourism companies apply that. There is no statistically significant difference between the Egyptian and KSA tourism companies at a significant degree of 0.559 as indicated in Table V.

TABLE V  
 EMICA ITEMS BY COUNTRY (PHASE 3)

Phase 3	Value	Asymptotic Significance (2-sided)
Complete purchase	0.209a	0.648
Complete purchase process in online shop (other products)	0.000a	1.000
Secure online transactions	1.081a	0.298

### C. The Third Stage: Processing "Functional Maturity"

Firstly, complete purchase: more than 90% of the surveyed companies do not provide a complete purchase on their website at a rate of about 48.3% and 47.5% of the Egyptian and the KSA travel agencies, respectively. The chi-2 result shows that there is no statistically significant difference between the two types at a significant degree of 0.648. Secondly, the complete purchase process in the online shop: most of the Egyptian and the KSA travel agencies do not provide a complete purchase process in the online shop: 47.7% for each sample separately. Therefore, there is no statistically significant difference between the two of them at a significant degree of 1.000. Thirdly, secure online transactions: nearly half of all Egyptian and the KSA travel agencies do not provide secure online transactions (45% and 47.5%) for the Egyptian and the Saudi tourism companies respectively. Therefore, there is no statistically significant difference between the two types at a significant degree of 0.298.

## V. DISCUSSION

The results show that the mean of applying the first stage with its two layers was not satisfactory for both KSA (23.5%) and Egyptian travel agencies (21.9%). Although the KSA travel agencies outperformed the Egyptian ones, the level of excellence was slight. The strength point in applying this first stage is that most of the sample members provided the website with contact details and e-mail. On the other hand, most of them did not update their website and there was an absence of

quality certification. KSA travel agencies have outperformed their Egyptian counterparts in presenting more than one language and the promotional offers on the website, while Egyptian companies outperformed the KSA travel agencies in providing information about the company location and tourism events. It is perceived that one of the main requirements that the customer needs from the company's website is to provide basic data about them to facilitate accessibility and provide the site in more than one language, which facilitates the communication process as well as information on tourist events and promotional offers that contribute to attracting customers to use the company's website, in addition to quality certificates that increase the customers' trust in the company.

Concerning the first layer of the second stage, one found that the Egyptian travel agencies showed a modest level of application (25.66%) and thus, outperformed the KSA companies (24.82%).

It seems that they are almost equal in this case with slight excellence for the Egyptian travel agencies. Layer two results show that the average of the application by all members of the sample is 39.9%. This explains that there is a deficiency in the majority of websites regarding the existence of online surveys and the existence of online store, etc. Layer three results indicate that the average of the application by all members of the sample is 39.4%. This explains that the majority of websites do not apply this layer except for providing multimedia applications and the availability to access the social media profiles. However, Egyptian travel agencies showed a modest level of application (21.7%) and thus, outperformed the KSA companies (17.7%). This explains that the majority of websites do not apply this layer except for providing multimedia applications and the availability to access the social media profiles.

Concerning the third stage of eMICA, "Processing", in general, 94.4% of all travel agencies studied did not applying this stage (47.5% of the KSA companies and 46.9% of the Egyptian companies). This agrees with [29] on the performance of the top-100 Chinese travel agencies in the application of the eMICA model, which suggests that none of them applied the third stage. The result may explain the concerns of surveyed companies with regard to failing in securing client information against hackers and providing secure online payments

## VI. CONCLUSION

The eMICA model is a worthwhile but not assured model to survey the significant properties of websites. It is specifically useful as a benchmarking instrument. By using eMICA, it was possible to systematically find out the features of the travel agencies' websites. This provides an opportunity for businesses to increase competitive advantage by investing in value-adding features that their opponents do not have, and makes it relatively easy to understand industry standards that are the features that e-users anticipate, and the features that are not common and yield additional value for the customer [38]. In the context of the websites in this study, a competitive advantage could be gained by increasing e-interactivity. It is

recommended that both KSA and Egyptian travel agencies must have basic and rich information on their websites. In addition, they have to raise the level of online interactivity.

Finally, the average of applying the three stages of eMICA model was low at about 39.3% (18.8% for the KSA and 20.5% for the Egyptian companies surveyed). The information revealed in this section forms an indicator regarding the current state of travel agencies with respect to the application of the eMICA model. If we analyze the results as a whole, we observe that there is still room for improvement in the implementation of e-commerce by travel agencies in both Egypt and Saudi Arabia.

The results of the research are a useful justification of the staged approach to the development of commercial Websites proposed by the eMICA model. Additionally, the comparative results of the KSA and Egyptian travel agencies suggest that they need to more benefit from the e-commerce with relatively sophisticated stages of development on the e-commerce roadmap. Concerning online processing, we suggest that travel agencies add interactivity features so that customers' problems can be resolved immediately. Both KSA and Egyptian travel agencies should focus more on providing secure reservation payment since security is an important issue with regard to making online payments. Those travel agencies studied should make sure that their website provides the secured reservation payment information that are well equipped with the appropriate security software to provide proficient websites. It is recommended that companies maintain up-to-date websites to keep tourists returning and improve search engine results.

#### VII. LIMITATIONS

The main drawback of the eMICA model is that it only explores the availability of a service or program and does not gauge the ease at which a resource is discovered or the time taken to access it; that is, the usability of the website itself is not estimated. As eMICA requires a period of gradual introduction of the internet, cases can be encountered in which websites combine features and components from many phases of the model, making it difficult at times to identify the website investigated [31].

There are several limitations to this study, but they are also very interesting themes for future research. The number of websites included in this study is somewhat low and limited only to websites from the lists of travel agencies provided by the ministries of tourism in Egypt and the KSA. Therefore, future research should try to investigate the impacts of a small sample size before sampling to determine the level of negative of each factor on the outcome of the results. This study is only to evaluate the travel agency website quality in only class A and suggest that future research will cover all types of travel agencies in both KSA and Egypt.

#### VIII. FUTURE RESEARCH

It is recommended to extend the study to include other countries; this would offer more data and allow a wider comparison of the results. Furthermore, to produce more

specific results, independent characteristics of the travel agencies, such as size, ownership, etc., could be considered. These variables could be used to check the relationship with item availability.

Another feature worth studying is the availability of versions of websites appropriate for mobile devices, specific travel agencies applications, and their assessment. Furthermore, in order to determine the main websites elements and their level of importance to the study and to better understand why some websites offer limited interactivity and/or information to visitors, it is recommended to undertake comprehensive interviews with key travel agencies personnel. It could also help in identifying the main barriers that deter the mature use of the internet and may justify the limited presence of travel agencies in the third phase of eMICA. Further research should include a larger and more diverse sample of travel agency websites, since the travel agencies included in this study also have to compete with international companies.

#### REFERENCES

- [1] Berné, C., García-González, M., García-Uceda, M.E., and Múgica, J.M., (2015). The effect of ICT on relationship enhancement and performance in tourism channels, *Tourism Management*, 48, pp. 88–198.
- [2] Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21, 97-116.
- [3] Law, R., Leung, K., and Wong, J. (2004). The impact of the Internet on travel agencies. *International Journal of Contemporary Hospitality Management*, Volume 16. Number 2. pp. 100-107 # Emerald Group Publishing Limited. DOI 10.1108/09596110410519982
- [4] Burgess, L., Gibbons-Parrish, B.K., Cooper, J., and Alcock, C., (2009). A longitudinal study of the use of the web by regional tourism organizations (RTOs) in Australia. 22nd Bled Conference, Bled, Slovenia: Bled Conference, pp. 519-531.
- [5] Tourism White Paper (2007). *Destinations Online: Approaches for Regional Tourism Organizations*, Centre for Regional Tourism Research, Southern Cross University.
- [6] Poon, S., & Swatman, P., (1999). An Exploratory Study of Small Business Internet Commerce Issues, *Information and Management*, 35 (1), 9-18.
- [7] Teo, T.S.H. & Pian, Y., (2003). A contingency perspective on Internet adoption and competitive advantage, *European Journal of Information Systems*, Vol.12, No.2, June 2003, pp.78-92.
- [8] Buhalis, D. (2003). *E-Tourism: information technology for strategic tourism management*. Englewoods Cliffs, NJ: Prentice-Hall.
- [9] Cavia, J.F., & Castro, D., (2015). Communication and branding on national tourism websites, *CUADERNOS.INFO* No. 37, ISSN 0719-3661, Version electronica: ISSN 0719-367x.
- [10] Jeong, C., Holland, S., Jun, S.H., and Gibson, H., (2012). Enhancing destination image through travel website information, *International Journal of Tourism Research*, 14 (1), 16-27.
- [11] Chiou, W., Lin, C., and Perng, C., (2011). A strategic website evaluation of online travel agencies. *Tourism Management*, Vol.32, pp. 1463-1473.
- [12] Burgess, L., & Cooper, J. (2000). Extending the Viability of MICA (Model of Internet Commerce Adoption) as a metric for Explaining the Process of Business Adoption of Internet Commerce, *International Conference of Telecommunications and Electronic Commerce*, Dallas, November.
- [13] Marimon, F.; Vidgen, R.; Barnes, S.; Cristobal, E. (2010). —Purchasing behaviour in an online supermarket: the applicability of E-S-QUALI, *International Journal of Market Research*, 2010, Vol. 52, nº 1, pp. 111-129.
- [14] Doolin B, Burgess L, Cooper J (2002) Evaluating the use of the web for tourism marketing: a case study from New Zealand. *Tour Manag* 23(5):557–561.
- [15] Schmidt, S., Cantalops, A. S., and Dos Santos, C.P., (2008). The characteristics of hotel websites and their implications for website effectiveness, *International Journal of Hospitality Management*, 27 (4), 504-516.



- [16] Burgess, L., & Cooper, J., (1998). The status of Internet Commerce in the Manufacturing Industry in Australia: A survey of Metal Fabrication Industries Proceedings of the Second Collector Conference on Electronic Commerce, Sydney, pp.65-73.
- [17] Burgess, L., Sargent, J.P., Cooper, J., and Cerpa, N., (2005). A comparative analysis of the use of the Web for destination marketing by regional tourism organizations in Chile and the Asia Pacific, Collaborative Electronic Commerce Technology and Research. Chile: Universidad de Talca.
- [18] Brogan, M.P., (2006). Transformation theory and e-commerce adoption, Thesis submitted in fulfilment of the requirements for the award of Doctor of Philosophy, Information Science Edith, Faculty of Computing, Health and Science, Cowan University. Retrieved from <https://ro.ecu.edu.au/theses/51>.
- [19] Timmers, P. (1998) Business Models for Electronic Markets. *Journal of Electronic Markets*, 8,3-8.<http://dx.doi.org/10.1080/10196789800000016>
- [20] Fransi, E.C., Daries, N., Cantallops, A.S., Cardona, J.R., and Zorzano, M., (2018). Ski Tourism and Web Marketing Strategies: The Case of Ski Resorts in France and Spain. *Sustainability*, Vol.10.
- [21] Boon, O. (1999).Evaluating the adoption of the internet: A model towards World's best practice. Unpublished Honors thesis, Deakin University.
- [22] Daries, N., Fransi, E.C., Ferrer-Rosell, B.F, Marine-Roig, E.M, (2019). Measuring Gastronomic Image Online, *Int J Environ Res Public Health*, 6 (23), November.
- [23] Daries-Ramon, N., Cristobal-Fransi, E., Martín-Fuentes, E., and Marine-Roig, E. (2016). Adopción del comercio electrónico en el turismo de nieve y de montaña: Análisis de la presencia web de las estaciones de esquí a través del modelo eMICA (E-commerce adoption in mountain and snow tourism: Analysis of ski resorts web presence through the eMICA model). *Cuadernos De Turismo*, 37, 113–134.
- [24] Pesonen J. A., & Palo-Oja O.M., (2010). Comparing Internet commerce adoption between the Finnish and the European independent accommodation companies. In: Gretzel U., Law R., Fuchs M. (eds) *Information and Communication Technologies in Tourism*. Springer, Vienna, pp.51-62.
- [25] Burgess, L., Cooper, J., Alcock, C., McNamee, K., and Doolin, B., (2003). Use of the Web for Destination Marketing by Regional Tourism Organizations in the Asia-Pacific Region, *Seeking Success in E-Business*, 123, 227-238.
- [26] Lemmetyinen, A., & Suomi, R., (2006). Cooperation of small enterprises in a web-based tourism network – case of the Old Mail Road in Finland, and Sweden. In Keller, P. & Bieger, T., (Eds.) *Marketing Efficiency in Tourism: Coping with Volatile Demand*. Berlin: Erich Schmidt Verlag GmbH & Co.
- [27] Liao, C., To, P.L., & Shih, M.L. (2006). Website practices: A comparison between the top 1000 companies in the U.S. and Taiwan. *Int. J. Information management*. pp. 26, 196–211.
- [28] Hashim, N., Murphy, J., and Law, R., (2007). A Review of Hospitality Website Design Frameworks. In Sigala, M. Mich, L. & Murphy, J. (Eds.) *Information and Communication Technologies in Tourism*, Austria: Springer.
- [29] Lin, D., Zhou, Z., and Guo, X., (2009). A Study of the Website Performance of Travel Agencies Based on the EMICA Model, *Journal of Service Science and Management*, January 2009, No.3, pp. 181-185.
- [30] Wu, S. and Zhou, Y. Y. (2006). A study of the electronic commerce application level of Chinese tour enterprises based on the eMICA model,” *The Fifth International Conference on E-Business*.
- [31] Cristobal-Fransi, E., Daries, N., Serra-Cantallops, A. , Ramón-Cardona, J., and Zorzano, M. (2018). Ski Tourism and Web Marketing Strategies: The Case of Ski Resorts in France and Spain. *Sustainability Journal*, 10(8):2920; doi:10.3390/su10082920.
- [32] Carey, J., & Gerck, J. (2002). Getting small business beyond brochure ware: Web content strategy and the role of the external web developer. Melbourne, Australia: COLLECTeR.
- [33] Law, R., & Hsu, C. (2005). Customers' perceptions on the html importance of hotel web sites dimensions and attributes. Nielsen, J. (2004). Ten usability heuristics. Retrieved from *International Journal of Contemporary Hospitality Management* [http://www.useit.com/papers/heuristic/heuristic\\_list](http://www.useit.com/papers/heuristic/heuristic_list). 17(6), 493–503.
- [34] Choochinprakarn, N. (2016). Adoption of electronic commerce in Thai travel small and medium enterprises. *International Journal of Business and Management*, IV (1), doi: 10.20472/BM.2016.4.1.001.
- [35] Crawford, H., Duan, S. (2017). Assessing Export Readiness of Tourism Operators' Digital Channels. Australian and New Zealand Marketing Academy Conference: ANZMAC 2017 - Swanston Academic Building, RMIT University, Melbourne, Australia, Duration: 01 Dec 2017 → 06 Dec.
- [36] Lastra, O. G., & Gregorio, G. E., (2016). Longitudinal Analysis of Websites of Ski and Mountain Resorts in Spain, Andorra and Pyrénées of France. Seasons: From 2009-10 to 2013-14, Universidad De Murcia, *Cuadernos De Turismo*, No.38, ISSN: 1139-7861 eISSN: 1989-4635, pp. 533-536.
- [37] Lin, P. J., Jones, E., and Westwood, S. (2009). Perceived Risk and Risk-Relievers in Online Travel Purchase Intentions. *Journal of Hospitality Marketing & Management* 18(8):782-810 DOI: 10.1080/19368620903235803.
- [38] Lexhagen, M. (2005). The importance of value-added services to support the customer search and purchase process on travel websites. *Information Technology & Tourism*, 7(2), 119-135.