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# THE IMPACT OF ONLINE ADVERTISING ON STUDENTS' CHOICE OF HIGHER EDUCATION INSTITUTIONS: A STUDY OF MALAYSIAN UNIVERSITIES

BY

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A dissertation submitted in partial fulfilment of the requirement for the degree of Master of Science in Marketing

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### ABSTRACT

Satisfying students' needs and meeting their expectations are the core elements of any educational marketing philosophy. This requires a deep understanding of students' mind-sets and internal and external decision making influencers. The concept of online advertising can be effectively utilised to enhance these elements. This study investigates the impact of online advertising on the choice of higher education institutions in a Malaysian context. The study investigates the impact of the three online advertising mediums; social media, display ads and websites on students' online decision-making processes and on their choice of university. The data was collected using a self-administrated questionnaire from 350 students of three Malaysian universities. Two stages structural equation modelling (SEM) was used to test the hypotheses and the fit of the proposed research model. Results from the data analysis indicated a significant relationship between all the variables except for display ads, which was not significant. The three significant paths indicated the relationships between social media and students' online decision-making process, websites and students 'online decision-making process and students' online decisionmaking process and students' choice of university. The results of testing the structural model also indicated that students' online decision-making process mediates the relationship between online advertising and students' choice of university.

# خلاصة البحث

لقد بات إرضاء متطلبات وتوقعات الطلبة الغاية الأساسية في مجال التسويق، وهذا يتطلب فهما عميقا لإحتياجاتهم، وكذلك المؤثرات الداخليه والخارجية على خياراتهم، ومن هذا المنطلق فإن التسويق الإلكتروني يعد وسيلة الإعلانات الأولى العاملة على تعزيز علاقة الطلبة بالجامعات. هذه الدراسة تحدف إلى اكتشاف العلاقة بين أنواع الإعلانات الإلكترونية من: مواقع التواصل الاجتماعي، مواقع إلكترونية، واعلانات اشهارية تأثيرها كل منها على قرار الطلبة لاختيار مؤسسات التعليم العالي. النموذج الإحصائي المقترح للدراسة تم انتقاؤه باختيار 350 عينة لطلبه من ثلاث جامعات عالمية بماليزيا، وباتباع المعادلة الهيكلية تم اخيار فرضيات الدراسة. ولقد أظهرت نتائج تحليل البيانات الفرضيات الثلاثة لكل من: مواقع التواصل الاجتماعي، المواقع الالكترونيه، واتخاذ القرار سليمة بينما فرضية الإعلانات فرضيات الدراسة. كما أثبتت النتائج ان كلا من مواقع التواصل الاجتماعي والمواقع التواصل الاجتماعي، المواقع الالكترونيه، واتخاذ القرار سليمة بينما فرضية الإعلانات الوهيات الدراسة. كما أثبتت النتائج ان كلا من مواقع التواصل الاجتماعي والمواقع الإلىكترونية ذات تأثير مهم و إيجابي على كل من: طريقة اتخاذ القرار واختيار الجامعات من طرف الطلبة.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion; it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Science in Marketing.

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## **DECLARATION**

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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## LIST OF ABBREVIATIONS

A MOS	Analysis of Moment Structure
ASV	Average Shared Variance
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Critical Ratio
EFA	Exploratory Factor Analysis
IIUM	International Islamic University Malaysia
LUCT	Limkokwing University of Creative Technology
ML	Maximum Likelihood
MSV	Multiple Shared Variance
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Science
TLI	Tucked and Lewis Index
UM	University of Malaya

# CHAPTER ONE INTRODUCTION

### **1.1 INTRODUCTION**

During the last decade, the higher education market underwent substantial changes in terms of policy, governance, structure, and status. These changes had a significant impact on the operating system of higher education institutions and were sought as the main driving forces towards changing this system (Brown R. , 2006).

Due to the aforementioned factors, higher education has become a supplysided market in which higher education institutions are offering education to qualified students who fulfil their criteria following an undirected, or sometimes limited marketing strategy (Beerkens-Soo and Vossensteyn, 2009). However, several studies have shown that this strategy is not suitable for these institutions (Constantinides, 2012). The dwindling enrolment rates, the fierce competition among universities at all the levels, and the very costly budget for outreach programs, in addition to reducing budgetary allocations are among the main challenges higher education institutions are presently facing (Cetin, 2003). These challenges have forced universities to reevaluate their marketing efforts and approaches by opting for the satisfaction of students' information and communication needs in addition to being more marketoriented institutions that prioritise communication with target groups (Alexa, Alexa, and Mari, 2012).

Most two-way marketing plans and concepts proven effective for companies and businesses are now being applied by many universities worldwide (Brown and Palatka, 2006; Temple and Shattock, 2007). In order to satisfy students as customers, higher education institutions need to develop a proactive and collaborative marketing

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plan encompassing all of the marketing 4Ps in which online promotion must be a key component to stimulate the choice of the student as planned (Evans D., 2012). Since student responses differ, this plan requires the right stimuli to target the right student (Constantinides, 2012).

Several researches have shown the promising potential of online advertising when used as a recruitment tool (Gibbs, 2002; Helgesen, 2008; Hemsley-Brown and Oplatka, 2006). In particular, the gaps between the information needed by the students and that provided by universities are being progressively addressed by today's online advertising (Hemsley-Brown and Oplatka, 2006). Therefore, engaging online advertising tools such as social media, websites and display ads into the university's advertising plan is an essential step due to the immense number of students who are responsive to these tools (Cetin, 2003).

### **1.2 PROBLEM STATEMENT**

In this research, customers' behaviour refers to students' behaviour. Students' expectations and choices characterise customer's behaviour in the higher education market. Student's expectations are a very important source of information, as their satisfaction is realised only when their expectations meet the actual university environment and standard (Dönmez, 2011). Similarly, knowing the key marketing influencers that shape students' choices of universities is important for developing good institutional positioning and a solid online advertising plan (Maringe, 2006).

Examining students' online decision making process and how online advertising tools affect potential students at each and every stage will facilitate the understanding of their effects on students (Hemsley–Brown and Oplatka, 2006). Therefore, more focus should be allocated to universities' online advertising plan, the choice of the online advertising tools, and the most influential aspects of advertising leading to the most desired outcomes (Coulter and Collins, 2011). It is worth noting that students resort to the online outlets of universities such as social media, official websites, blogs and forums as a first step to gather information about any university (Darban and Wei, 2012).

Websites provide a platform to reach a large number of students, alumni, parents, and donor volunteers all over the world through its vast network reach. Similarly, social media is a key advertising tool providing a space for online socialising and networking through words, pictures and videos (Solis, 2008). Finally, display ads are another channel of online advertising no less effective than social media and websites (Starck and Shahriyar, 2013).

Since the number of Internet users from different age groups is increasing significantly in Malaysia (see Figure1.1) (Hudson, 2013), this study investigates the effects of each of the aforementioned online advertising aspects on student's decision making process when it comes to the choice of university. Several previous researches were conducted to assess the impact of each of these three factors on consumers' choice (Beal, 2014; Constantinides, 2012; Evans, 2009; Kang, 2011; Moisan, 1987; Tavor, 2011). Therefore, it was necessary to combine the three aspects and study their impact on student's choice of university in Malaysia.

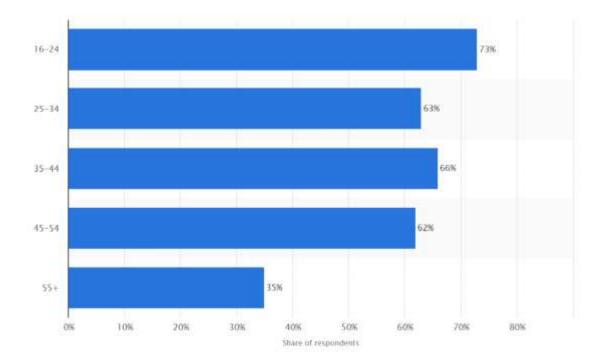


Figure 1.1 Daily Internet Usage Rate in Malaysia by Age (2014)

### **1.3 OBJECTIVES OF THE STUDY**

### 1.3.1 General Objectives of the study

Advertising a higher education institution online either for the public or for potential students relies on more than one online advertising tool. Online advertising channels are vital for a successful advertising plan. Accordingly, this research examines the influence and role of social media, websites, and display ads as three aspects of online advertising affecting student's choice of higher education institutions.

### 1.3.2 Specific Objectives of the study

This research has four specific objectives:

1. To analyse the effect of social media on student's online decision making process.

- To find out the impact of the university website's design and content on students' online decision making process.
- To identify the impact of display ads design and positioning on student's choice of university.
- 4. To explain through a developed model the effect of students' online decision making process on their choice of higher education institutions.

### **1.4 RESEARCH QUESTIONS**

This study attempts to answer the following questions:

- 1. What is the effect of social media on student's online decision making process?
- 2. What is the impact of the university website's design and content on students' online decision making process?
- 3. What is the impact of display ads design on students' online decision making process?
- 4. What is the effect of students' online decision making process on their choice of higher education institutions?

### **1.5 SIGNIFICANCE OF THE STUDY**

This research finds its *raison d'etre* in the fact that online advertising is becoming increasingly influential on consumer choices of at all levels (Muellner, 2013). Many people who opt for online transactions see online advertising as easier, available, accessible, and efficient (Tavor, 2011).

In line with this, several studies such as McMillan (2004) and Starck and Shahriyar (2013) argued that online advertising can influence the decision of the consumer at various phases and stages of the decision making cycle. The present study views the impact of online advertising on the choice of students as a significant objective. Indeed, many students make their choices based on what they see in the social media, websites and display ads. Studying the impacts of such mediums is crucial to understanding student behaviour and decisions towards online advertising.

The significance of this research stems from the shortage of studies and researches that examine the impact of online advertising, especially the three sampled factors (Rai and Sharma, 2010). Furthermore, the paucity of such studies within the Malaysian context renders it a good environment for such research. This is due to the fact that Malaysian context is a favourable environment due to the dynamic use of online advertising tools and techniques in many transactions and activities. This environment is characterised by the availability of online infrastructures and facilities, the fact that makes online advertising more common and attractive to consumers, particularly students (Janssen, 2014). Therefore, this study aspires towards formulating a model to explain the decision making of students in relation to the three elements of online advertising (Muellner, 2013).

The main significance of the present study lies in the attempt to provide an integrated analysis in which the three factors are singled out and articulated to understand the decision making of students as far as online advertising is concerned. Thus, it is a significant study as its approach and findings will provide answers to several questions pertaining to the impact of online advertising on students' choice of university.

The study will make available an interpretation of the student's online decision making and suggests recommendations to enhance the impact of online advertising on students' choices. In turn, many stakeholders will benefit from the findings especially online advertising agents. In the same token, students will benefit by understanding the extent to which online advertising is influential and important to them while deciding their university of choice.

As the main objective of the study is to show the impact of online advertising, this research will be an addition to what has already been produced by scholars and researches in this field and niche of study.

#### **1.6 SCOPE OF THE STUDY**

The present study does not take all aspects of online advertising into consideration, and focuses on the mediums of social media, websites, and display ads. Further, the study is limited to a specific representative sample of students from the International Islamic University Malaysia, Limkokwing University of Creative Technology, and the University of Malaya. According to Payne (2012), these three universities rank among the most popular in Malaysia and contain a blend of international students' that will represent a good sample of study. This will help compile reliable information and draw solid conclusions by drawing on the views of international students on Malaysian universities (Darban and Wei, 2012).

#### **1.7 DEFINITIONS**

#### **1.7.1 Online Advertising**

Online advertising is a type of advertising used to increase website traffic and spread marketing messages to targeted customers via banner ads, search engine results, social networking ads, email spam, online classified ads, pop-ups, contextual ads and spyware, etc. (Kornias and Hălălău, 2012).

#### 1.7.2 Social Media

Social media is a term used for an extensive range of a new generation of internet applications with commercial interest (Baker, 2009). It comprises activities that involve socialising and networking online through words, pictures and videos, following a two-way dialog which allows users to create and exchange a content generated by users on the Web (Constantinides, 2012).

#### 1.7.3 Websites

A Website is a group of World Wide Web pages that contain hyperlinks to each other (Alexa, Alexa and Mari, 2012). Websites are available online by an individual, company, educational institution, government which contains information and details about the nature of activity of the website's owner(s) (Constantinides, 2012).

### 1.7.4 Display Ads

Display ads are the graphical ads shown on websites which usually appear next to the content of web pages, IM applications, email, etc. It is an affordable way to target the exact customer group (Jandal, 2011).

#### **1.7.5 Student's Online Decision Making Process**

This is defined as the course of making a decision online in a six stage process starting from awareness, information search, alternative evaluations, purchase decision, and finally post-purchasing behaviour (Darban and Wei, 2012).

#### **1.8 ORGANISATION OF THE THESIS**

This section presents the flow and organisation of the thesis. This thesis includes five chapters. The first chapter introduces the topics that will be discussed and examined in the subsequent chapters, starting with an introduction, followed by the problem statement, research questions, research objectives, and significance of the study.

The second chapter reviews the literature related to the topic of this study. It contains five sections. The first defines the stages of online advertising, its types and channels, and highlights its importance. The second section discusses the three aspects of online advertising (social media, websites, and display ads) which are the topic of interest of this research. This section also provides detailed information about these aspects and explains how they affect students' choice of university. Following this, section three discusses the stages of customers' online decision making process and explains the role of online advertising in shaping customers decisions when it comes to university choice. Finally, the fourth section discusses the proposed research model which will be followed in the subsequent chapters.

The third chapter covers the methodological part of this thesis. It starts with research design, data collection, and data analysis.

An empirical methodology is then used to test the hypotheses developed earlier from the literature review and based on the proposed research model.

The fourth chapter presents the research findings and analysis of the results, while the fifth chapter will test the hypotheses, discuss and interpret the findings of this study, and examine their implications on students and their process of choosing a higher education institution.

# CHAPTER TWO LITERATURE REVIEW

### **2.1 INTRODUCTION**

This chapter focuses on the findings of previous studies on online advertising factors which affect students' choice of higher education institutions. First, the evolution and the history of online advertising are reviewed. Afterward, definitions of the different types of online advertising are given along with highlights of their importance. Thereafter, the aspects of online advertising to be examined in this study are identified. Students' online decision making process is then further explained with a focus on the effect of the sampled online advertising aspects. Finally, we present the proposed structural model of the study developed based on the hypotheses drawn from the literature review.

#### 2.2 EVALUATION OF ADVERTISING ON THE INTERNET

There is a lot of disagreement among researchers about the exact starting date of online advertising (Evans, 2009). However, O'Reilly (2007) founder of the web portal Global Network Navigator (GNN) claimed that the first online advertisement appeared in 1993 on GNN and required a special dispensation from the National Science Foundation. Among the first forms of online advertising was a banner ad sold to AT&T and displayed on the HotWired site in 1994 (Evans, 2009).

When tracking the history of online advertising, we find that the first online ads were sold exclusively following the "Cost-Per-Impression" pricing model, which was the same model used by the offline media (Ratliff and Rubinfeld, 2011). The advertiser was charged according to the number of times his ad showed on a web page (Graydon, 2003). During 1998, a search engine named "GoTo.com" was launched (Sullivan, 2001) replacing the "Cost-Per-Impression" pricing module. This uses a realtime competitive-bidding model to allocate listing priorities (Szoka and Adams, 2006). The "GoTo" process was the "first-price auction", meaning the winning bidder pays his bid for every click (Pelline, 1998).

According to Benjamin, Ostrovsky and Schwa (2007), GoTo and its advertisers quickly learned that the bidding mechanism used was unstable due to the fact that bids could be changed very frequently. In October 2000, Google launched the AdWords service, which enabled placing ads on the search-results pages of Google.com. (Slegg, 2014). O'Reilly (2007) and Slegg (2014) explained that the displayed ads could be chosen based on keywords that appeared upon the user's search inquiries. By March 2003, Google reached over 100,000 advertisers buying search ads through its AdWords program (Ratliff and Rubinfeld, 2011). Slegg (2014) also mentioned that "Site Targeting" was first introduced in April 2005 by Google in order to allow advertisers to target specific websites on Google. The ads contained texts and animated images which were previously not allowed (Ratliff and Rubinfeld, 2011). A few years later, Kenin (2007) reported the introduction of "AdSense" for Mobile phones in September 2007. It gives room to websites owners to monetise their websites by allowing the display of AdSense. By June 2009 Google released a beta version of AdSense for mobile phone applications that pays developers when ads are shown on iPhone and Android applications (Wojcicki, 2009).

#### 2.3 DEFINITION OF ONLINE ADVERTISING

Beal (2014) and Janssen (2014) defined online advertising as a marketing strategy that involves the use of the internet as a medium to obtain website traffic, target and