

ISSN 2319 - 345X Vol. 2, No. 3, July 2013

International Journal of Management Research and Business Strategy



Electronic copy available at: https://ssrn.com/abstract=2316792

ISSN 2319-345X www.ijmrbs.com Vol. 2, No. 3, July 2013 © 2013 IJMRBS. All Rights Reserved

ANALYSIS ON SEARCH ENGINES: EVIDENCE OF EFFECTIVENESS AND EFFICIENCY

Catherine E Perera¹, Samuel P D Anantadjaya² and Irma M Nawangwulan³

*Corresponding Author: **Samuel P D Anantadjaya,** 🖂 ethan.eryn@gmail.com

This paper attempts to analyze the actual utilization of search engines as an effective and efficient marketing tool in Indonesia, using real case scenarios from Company A, Company B, Company C, and Company D. The purpose of the research is to observe the strategy used on those companies, including observing the current opportunities on implementation of search engines as a marketing tool for Indonesian firms. Qualitative and quantitative approaches are conducted in this study. The result of this research shows that search engines implementation as a marketing tool is regarded as effective and efficient, using the basis of case studies in those firms. Search engines may not be fully applicable in all business types. Hence, in order to adopt search engines as their marketing tool, marketers should be aware of some factors that truly influence the existence of search engine marketing in Indonesia.

Keywords: Search engines, Efficiency, Effectiveness, Marketing tool, Cost-benefit ratio

INTRODUCTION

Marketing is a process which recognizes consumer's wants, focusing on a product or service to fulfill those wants, and attempting to move the consumers to be willing to buy the products or services offered (Boyett and Boyett, 2003; Dahl, 2007; Lancaster and Reynolds, 2002; Perera, 2008; Seda, 2004). There are many marketing techniques that marketers can adopt in order to increase customer awareness of a product or service which, of course, depends on the situation (Lancaster and Reynolds, 2002; Perera, 2008; Seda, 2004).

Traditional marketing media, which include; television advertisement, radio, newspapers, and billboard, are demographically user-friendly until now (Belch and Belch, 2003; Boyett and Boyett, 2003; Dahl, 2007; Lancaster and Reynolds, 2002). Once this demographic match has been determined, the content, brand, and item are

- ² School of Accounting, Faculty of Business Administration & Humanities, Swiss German University, Serpong, Tangerang, Indonesia.
- ³ School of Business, Universitas Pembangunan Jaya, Bintaro, Tangerang, Indonesia.

¹ Siemens Pte, Ltd, Energy – Oil & Gas Solutions, Singapore.

placed within view of the designated potential consumers with the hope of attracting their attention.

The internet has now begun to live up to its hype about being the most important communication tool in the world. It plays an important role in current business situation, not just as a source of information but also as a marketing tool (Gay, et al, 2007; Stafford and Faber, 2004). As the number of sites on the web increased in the mid-to-90s, search engines started appearing to help people find information quickly. Since the internet and search engines utilization have grown quickly within business area, it later becomes a new competitive business "weapon" in a business world (Gay, et al, 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004).

As competition grows, it needs an effective and efficient marketing tool to support its marketing strategy (Lancaster and Reynolds, 2002). Of all promotions tools used to support marketing strategy, marketers have to pay attention to which factor(s) supports the preference of search engines as a marketing tool compares to others and they also have to look for an opportunity for search engines utilization in marketing area.

In addition to becoming a good marketing tool (Gay *et al.*, 2007; Stafford and Faber, 2004), search engines as a part of internet has begun to be an internet marketer's best friend. Using search engines as a marketing tool can help marketers in many key areas, such as; saving time, saving money as well as making money, pleasing customers, and, in addition, it also helps marketers to segment their target market (Perera, 2008).

As mentioned previously, search engines are

expected to have the ability to save money (Gay, et al., 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004). Search engines are also expected to have the power to generate money for marketers (Gay et al., 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004). Unlike television advertisements, search engines are accessible only to those who want to see particular information. This means that the message reaches people, who truly look and choose to see those messages, by logging into a site, or clicking on a particular advertisement. Nonetheless, the likelihood of outcomes may remain uncertain.

Research Problem and Purpose

This study attempts to focus on the utilization of search engines, and the impacts on marketing efficiency and effectiveness at Company A, Company B, Company C, and Company D. This study attempts to also seek-out opportunities for Indonesian firms to start using search engines as their marketing tool. Aside from empirical evidence from real firms, a focus group discussion ("FGD") is incorporated to show the quantitative and qualitative impacts of the search engines.

Significance of Study

Business situation becomes tighter and more competitive each day. In order to achieve the optimal objective in the more competitive business world, people need an effective and efficient marketing tool that they can use. Nowadays, the role of search engines becomes more significant, it does not only useful as source of information, but also useful for advertising and marketing world. This does not apply merely to internet marketers, but also to those who had been using the conventional or traditional media before such as radio, television, print, and outdoor.

As the technology progresses, market experiences rapid increases on online access over the last period-- due to the significant incentives to apply new methods of doing things. Hence, online marketing occurs as a mean of the new marketing concept strategy. The findings from this study are expected to increase the awareness of the search engines' advantages that people may not find in any other marketing media.

Moreover, after all being said, this study pushes people to be more critical in evaluating our potential surroundings, if people use search engines properly, or looking search engines from a different perspective, it would be beneficial, as it may provide benefits.

Research Limitation

This research uses the actual data and information from of Company A, Company B, Company C, and Company D. These two firms are currently using search engines as their marketing tools, and search engine optimization as their marketing strategies. In addition, this study also relies on FGD, which consists of individuals, who have used search engines intensively, made purchases, and/or put-forth inquiries.

LITERATURE REVIEW

Marketing Overview

Essentially, marketing carries similar objectives regardless the business' size. Although the definitions of marketing vary, they nonetheless carry similar fundamental objectives. Curry (1998), described marketing as the whole commercial process to build and form potential customers' interests prior to the actual sale of any products and services. Another concept of marketing was about the design to boost customer awareness via specific message delivery (Abrams and Kleiner, 2003). Hence, marketing focuses on processes, designs, and systems, and not just a mere buying and selling products or services. This study takes on the concept that marketing is about how the company can attract people's attention.

Online and offline marketing approaches (Gay, *et al.*, 2007) have been used intensively nowadays. Marketers recognize the offline approach as the conventional method of marketing. On the contrary, online marketing, or otherwise called e-marketing or internet marketing, acts as the modern approach within the marketing world. This study emphasizes on the latter, and to be more specific, the discussion of online marketing will be done by using search engines.

Gay et al. (2007), Jansen and James (2002), and Perera (2008) defined e-marketing as the use of internet and related digital information and communications technologies to achieve marketing objectives. Hence, according to aforementioned definitions, marketing online could be defined as placing a business or product on the internet for millions of users to view so that the online marketers can turn their website into a strong tool to communicating their products and business potential in order to achieve their marketing objective(s). Online marketing is much more than just simply putting advertising online. Just like the offline approach, online marketing includes; communicating with customers, promoting business or product online, and making sure that the website content is full and up to date. The great thing about online marketing is that marketers do not need to have a large amount of

This article can be downloaded from http://www.ijmrbs.com/currentissue.php

budget to put together an efficient as well as effective marketing campaign.

The definition above recognizes also that exchanges remain as the central concept in marketing. For exchange to occur there must be two or more parties with something of value to one another, a desire and ability to give up that something to the other party, and a way to communicate with each other. Advertising and promotion play an important role in the exchange process by informing consumers of an organization's product or service and convincing them of its ability and, at the same time, satisfy their needs or wants. According to Belch and Belch (2003), Kaliski (2001), and Perera (2008), promotion has been defined as the coordination of all seller initiated efforts to set up channels of information and persuasion in order to sell goods and services or promote an idea. Promotion is a crucial aspect in marketing since it can potentially extract a lot of money if it is not handled in an effective way. Nevertheless, it is simply about communicating with customer through sales promotions, public relations, direct marketing, online marketing, or advertising. Though it sounds simple, promotion is undoubtedly the most expensive, and problematic (Boyett and Boyett, 2003). Media selection is not an easy task because marketers should measure and calculate the circulation, audience size, and sets in use per commercial minute. In this study,

promotion activities are referred to online marketing through the optimization of utilization on search engines.

In order to choose a marketing tool, marketers should consider the effectiveness¹ and efficiency² of marketing campaigns. The goal in this marketing study is equal to the marketing objective, which is to increase customer awareness and to deliver the marketing message. The term "new media" may have to be incorporated along with this issue to signify the idea of digital technology. New media emerges and pushes the need to understand new advertising and marketing opportunities (Belch and Belch, 2003; Boyett and Boyett, 2003; Kaliski, 2001; Stafford and Faber, 2004). It is important to note, however, that the "old" does not disappear, but might be molded into the "new" type of media. For instance, people who listened to news broadcast on the radio would still buy newspapers. Also, people who read online news would still buy newspapers.

According to Dahl (2007), there are some options for advertising media which can be used to market products or services, such as the following; (1) print media, which includes newspapers and magazines. Newspapers are excellent to target a broad consumer base. Magazines are excellent for high geographic and demographic concentrations. Readers of Men's

¹ In this study, the term "effectiveness" is defined as the accuracy and completeness with which users achieve certain goals. Hence, it actually refers to "effectively reaching the potential customer". In this case, the term "potential customers" refers to the number of customers, who are seriously interested in the company's product or service (FrÆkjaer, et al, 2000). Concerning the online marketing, those potential customers do not just visit the website, but also make prospect calls or e-mails to the company. The numbers of visitors to the respective websites, do not reflect the potential customers, nevertheless, it reflects the number of the target market. Reach, in general, refers to the number of potential target audience members exposed at least once to the promotional message in a given time period (Kaliski, 2001). Thus, the term effective in this study will be measured by the number of potential customers reached in a given time period.

² In this study, the term "efficiency", according to FrÆkjaer, et al (2000), refers to the relationship between the accuracy and completeness with which users achieve goals and the resources expended in achieving them. Hence, efficiency is only a mere comparison between sales and marketing costs. In order to get the efficient conclusion, there will be a comparison of cost-benefit analysis between search engine marketing to offline marketing, which use print media, as the advertising and promotion tool on study case companies.

Health magazines, for instance, are significantly different than National Geographic readers, (2) radio presents a relatively low cost of advertisement. With the development of satellite radios, listeners can tune in online, (3) television presents the most expensive media, (4) direct mail, such as; catalogs, CDs, and pre-approved credit card applications, for instance, may be addressed to pre-selected individuals or unaddressed and delivered neighborhood-byneighborhood basis. This option offers a more personalized approach, (5) outdoor advertisement, from billboards to advertisement on kiosks, buses, cars, taxis, or even on benches, and (6) online advertisement, which refers to the extensive use of internet.

The Internet

Technological progress gives "fresh air" for many aspects in people's live. The influence of technology has also affected the business world, as today, the internet can be effectively used to accomplish strategic business objectives and allow even smaller companies to appear (and operate) like large corporations do. As the number of internet users keeps growing, internet becomes another media that marketers can market goods (Gay *et al.*, 2007; Google Inc, 2007; Perera, 2008).

Table 1 shows the statistics on internet use. Among the neighboring countries, such as; Japan, China, Malaysia, Thailand, The Philippines, and Singapore, Indonesia has recorded the low penetration rate, of only 16.1%. Though this penetration rate is doubled than Indian penetration rate, nonetheless, this indicates that there are people, who have not experience the use of internet regularly. In contrast, the numbers of Facebook users are the highest, even higher than Japanese Facebookers. According to the www.internetworldstat.com (2008), Indonesia is positioned on the fifth place of Asia top 10 internet countries. By the end of 2011, www.internetworldstat. com (2011) recorded that Indonesia sits at the fourth place of Asia top 10 internet countries, immediately following China (in the first place), India (in the second place), and Japan (in the third place). This may be the very reason why Google, the giant internet organization from the United States, has decided to come to the Southeast Asian region, and opened its branch office in

Table 1: Internet User Statistical Data						
Country	Population (2011 Estimated in thousands)	Internet User (2011 Estimated in thousand)	Internet Users, Latest Data (in thousands)	Penetration (% Population)	Users in Asia (%)	Facebook Users (2000-2011 estimated in thousands)
Japan	126,476	47,080	99,182	78.4 %	10.6%	38,124
Singapore	4,741	1,200	3,658	77.2%	0.5%	2,488
Malaysia	28,729	3,700	16,902	58.8 %	1.8%	11,221
China	1,336,718	22,500	48,500	36.3%	52.0%	504
The Philippines	101,834	2,000	29,700	29.2%	3.2%	25,307
Thailand	66,720	2,300	18,310	27.4%	2.0%	10,612
Indonesia	245,613	2,000	39,600	16.1%	4.2%	38,860
Sour	ce: www.internetworldst	tats.com, 2011; www.nie	lsen-online.com, 2011;	www.itu.int, 2011	; www.miniwat	es.com, 2011

162

Singapore. Perhaps, Google has learned the enormous growth internet opportunity in Asia.

The digital world is built on rapid change (Gay, *et al.*, 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004). These changes provide advantages for marketers, because each change brings new ways to communicate with customers and to reach customers at a time when other brands may not have the ability to do so. Although the development to today's internet existed more than 30 years ago, online services, the world wide web, search engines, and wireless access, have emerged steadily over time (Gay *et al.*, 2007).

Internet marketing, or online marketing, or emarketing, is shortly referred to as a marketing method of products or services over the internet (Gay, et al, 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004). Internet marketing can be divided into some methods and strategies, which encompass a wide range of services such as search engine marketing ("SEM"), affiliate marketing, banner advertising, and e-mail marketing. SEM can be divided into search engine optimization ("SEO") and pay per click ("PPC"). Affiliate Marketing refers to when a particular firm hires other firms or websites, known as affiliates, and entrusts them with the responsibility of marketing the products or services. The affiliates earn commission. The affiliates can host a website in which it may display the banners or logos of the company. If the visitor clicks on this banner, they are redirected on the sponsor's site. Banner Advertising refers to when banners of the advertisers are displayed on the websites. The advertisers pay certain amount of money to get the banner displayed on the website for a certain period of time. E-mail Marketing is a form of direct marketing which uses electronic mail in order to communicate or to market products or services

to customers. SEO refers to when a website is made more search engine friendly so that when a specific keyword or search is typed by the user, the site will make it into the top search results. SEO column also called as natural listing. PPC refers to the address of the advertiser's website featured separately from the natural listing or SEO column. Advertiser pays the search engine certain amount of money if a keyword relating to his industry of sector is typed in. PPC column also called as paid listing (Gay *et al.*, 2007; Kosasih and Anantadjaya, 2008; Linker, 2007; Seda, 2004; Stafford and Faber, 2004).

Samuel PD Anantadjaya et al., 2012

Although internet marketing seems hardly new for the marketing methods, it brings many advantages for marketers (Gay et al., 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004). Since internet has no geographical constraint, then it becomes a good marketing tool. Internet marketing offers a broader market scope. Instead of reaching a domestic market only, marketers have opportunities to market their products to overseas market. Before the advent of the internet, to market their products to other country, marketers had to visit abroad, hunt for buyers and then finalize the deal. Internet marketing will truly influence small or medium size companies which has a limited marketing budget. Internet marketing has become a great boom, as marketers need not to travel anywhere for getting and meeting the prospective customers.

Internet marketing also offers a cost effective option as compared to traditional methods of marketing such as print and the audio or video medium (Gay *et al.*, 2007; Linker, 2007; Seda, 2004; Stafford and Faber, 2004). Marketers only have to establish access to internet to start using internet marketing. Marketers would significantly reduce travel expenses that they would otherwise incur to attend trade fairs and shows. Marketers could also discover new markets. It happens that a particular market remains untapped by sellers due to lack of awareness, or perhaps due to geographical hostility. Under such circumstances, internet marketing can be a great tool to tap into such markets.

Relying on internet marketing, marketers can display full information about any firms or products. In the traditional world of print and audiovisual, there is a considerable limit on how much information can be passed-on to consumer. Restrictions come in many forms. Size of the advertisement rules the printed media. Measurement in seconds guides the audio media. For a diversified firm, a website may well be the best bet to convey information to public.

Search Engines Marketing

Search engines have become an integral part of people's lives. It can be used to find information, products, and services. There are many aspects that people can find using search engines such as travel, finance, entertainment, education, health, or e-commerce. According to Gay et al. (2007), Jansen and James (2002), and Perera (2008), search engine defined as a searchable catalogue, database, or directory of websites, of a reasonably large size. It also known as an internet-based tool that searches an index of documents for a particular term, phrase or text specified by the user, which is commonly used to refer to large web-based search engines that search through billions of pages on the internet. In order to found what they search, Internet users have to type keyword phrases into the search engine search box.

It is also observed that search engines and directory listings are the most popular method to gathered information by internet users (Jansen Samuel P D Anantadjaya et al., 2012

and James, 2002). Numerous studies have claimed that search engines have become the primary tool for anyone, who sought information online. For example, it is estimated about 80 to 85% of web-users use search engines as a tool of first resort. As more people have turned to search engine for information, the commercial aspect of search engine has started to evolve (Gay et al., 2007; Linker, 2007). It offers opportunities to companies through services that it provides. Search engines are not only influences our daily life, but also current business situation. Its versatility, search engine gives marketers a good way to reach, engage, and interact with people. Marketers can produce online campaign which gives them new abilities to reach (Google Inc., 2007); niche markets with specific interests, broad audiences with a single message, large or small geographic segments, and speakers of specific languages. Today, there are several types of search engines (Perera, 2008). The Table 2 defines the US-based search engine's market share, as of December 2011.

Table 2: US-based Search Engines' Market Share					
Engine	Market Share	Query Volume (in million)			
Google	65.6%	11,863			
Yahoo!	15.2%	2,741			
MSN/Live	14.8%	2,678			
Ask Network	2.9%	518			
Source: <u>www.compete.com</u> , 2008; <u>www.comscore.com</u> , 2011					

Many marketers and advertisers put their messages out on the traditional advertising and marketing media of television, radio, and print. These media allow advertisers and marketers to reach a wide audience. The substantial drawback is that it is relatively inefficient since those media needs a lot amount of money to market a product

via those media. Aside from the expense, it is also considered ineffective since the message might be reaching a large number of consumers, who may simply uninterested. Effective online and search engine marketing is also about putting a product or service in front of potential customer at the exact time that they are looking for it. This technique is known as "pinpoint marketing" (Linker, 2007; Perera, 2008). Pinpoint marketing is much different than advertising on radio, newspaper, or television, which are known as "interruptive" marketing techniques. Linker (2007), and Perera (2008), stated that pinpoint marketing is the process of sending the right message at the right time to the right audience so that it produces more actual results than a "one size fits all" messages. Interruptive marketing mostly costs a lot more than pinpoint marketing and is less effective for the simple reason that marketers are attempting to put their products out there in front of everybody instead of pinpointing those potential customers who want to find out more about them and their business.

Marketing via search engines has its own unique system. Instead of marketers broadcasting and marketing their messages to customers, the "reverse broadcast network" of search engines allows millions of consumers each day tell advertisers and marketers exactly what they want. Perera (2008), Seda (2004), Stafford and Faber (2004) explained that search engines customers are already in "buy mood". It means that when they search, they are looking for someone who stands ready to fulfill their needs. This makes this type of marketing is "effectively reaching" and targeted. In order to market their product using search engine, marketers must understand the importance of having their web site indexed with the major

search engines. Gay et al. (2007), and Perera (2008) indicated that search marketing provides the highest return on investment ("ROI") and lowest cost per acquisition ("CPA") than any other form of advertising and promotion. When marketers look at the search engines as a marketing tool, they can see how effectively it can be used to accomplish their goals. Search engines are currently used for a number of marketing purposes, such as; advertising company's products and services, sales channel for new products, generating leads or traffic online and offline, shortening sales cycle by providing purchase information, where and how to buy, and what to expect to pay, collecting customer information, communicating company information, and performing and enhancing customer service with the potential to up sell products.

However, as the number of web pages grows continuously and the more people are using internet and search engines as their source of information; then, in order to market their product, search engine marketers must be "visible" to the buyer's eyes. Visible here means that the marketer's website should be ranked at the first page of search engines' page. To be visible in buyer's eyes, there are some ways that can be done. Generally speaking, there are 2 most popular techniques of search engine marketing called SEO, and PPC, as mentioned earlier.

Search engine marketing itself acts as a form of marketing that seeks to promote websites by increasing their visibility in search engine result pages. Since there are millions of websites in the online world today, thus, for marketers who are using search engines as their marketing tool, it is important to do search engine marketing technique, either SEO or PPC. Using these techniques helps people to find the marketer's

website as supposed to anyone else's. Here marketers can see that search engine give an incredibly targeting method of attracting website visitors.

SEO Vs. PPC

According to Gay et al. (2007), Jansen and James (2002), and Perera (2008), SEO is defined as the technical process of engineering or reengineering web pages to gain quality links from other websites to acquire a position on the web's major search engines or directories. In this way, SEO is a process of improving the volume and quality of traffic to a website from search engines via "natural" search results based on targeted keywords. Alternatively, as mentioned earlier, PPC is often referred to pay-for-placement or paid placement. It uses an advertising price structure where the "advertiser pays depending on the number of times the published advertisement is clicked on. In the search engine marketing, marketers bid amount determines the price of a click and usually the placement in the

advertisement spots, which are generally located at the top and on the right hand side of the search results.

The following is an example of PPC advertising. Company ABC wants to advertise on a particular search engine, which uses a PPC price structure. Company ABC bids on certain keywords against other companies (say, company DEF and company GHI), that want to appear also for those same keywords. The ranking of the advertisements depend on which one of the companies bids the highest. Let us assume that company ABC bids \$0.35, company DEF bids \$0.34, and company GHI bids \$0.36. Based on these bids, company GHI will appear first in the PPC listings. Company ABC is listed second, and company DEF is listed third. When a user clicks on the advertisement of Company ABC to take them to the Company ABC's website, company ABC pays the amount that it bids for that keyword on search engine. In this case, company ABC pays \$0.35 per click.



This article can be downloaded from http://www.ijmrbs.com/currentissue.php

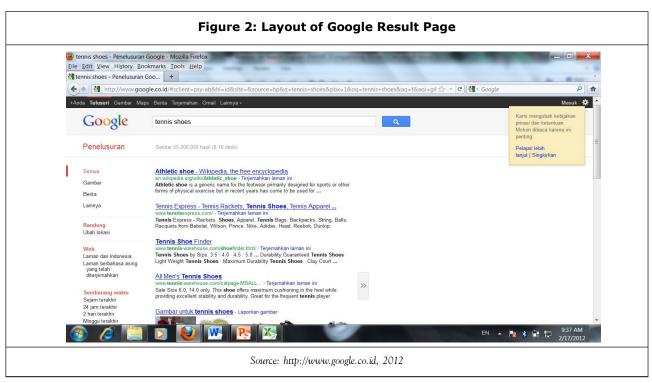
166

As Perera (2008) indicated above, based on the Google results page (www.google.co.id, 2008), for instance, it explains clearly that the results page in a search engine is divided into two criteria. On the left hand side of the Figure 1 is called the natural listings, and results in those came from the search engine optimization. On the right hand side is paid listings, and results in those came from pay-per-click or paid search marketing. As shown below, the second illustration as per 2011 indicates a much different view of the Google results page (www.google. co.id, 2011).

Referring to the Google results page above, it obviously describes that the vast majority of spaces given to the natural listings. SEO is about improving a website in those natural listing. Much less of spaces given offered to the paid listings or on the right hand side. Thus, it is clearly portrays that SEO gives more traffic opportunity for website. In this context, traffic denotes the website traffic, which is represented the amount of user activity on a website (Jansen and James, 2002; Perera, 2008). Hence, SEO is good for the long term since it delivers traffic for the website and if marketers are able to apply the strategy to fully optimize its potentials, they do not need to spend any amount of money on it.

The second-most-current illustration, as shown in the Figure 2, is also conforming to the same understanding that the majority of spaces given to the natural listings.

It is worth noted that in order to use PPC, marketers simply need a credit card with them. Marketers need to set up an account and deposit a certain amount of money. By using PPC, marketers have to bid for their keywords or phrases. If he wins the bidding, then each time a surfer keys in that specific keyword or phrase, the marketer's website will appear at the top of the paid listing. When the surfer clicks on the marketer's link and lands on the marketer's site, some amount of money is then deducted from



This article can be downloaded from http://www.ijmrbs.com/currentissue.php

167

the marketer's initial deposit. According to Gay *et al.* (2007), and Perera (2008), PPC may entangle marketers into unnecessary bidding war before realizing that ROI is insufficient to cover such bids.

Cost-Benefit Analysis

According to Brent (2006), Elliot *et al.* (2007), and Perera (2008), cost-benefit analysis ("CBA") is necessary to calculate the present value of all benefits less costs. CBA suggests that projects are economically acceptable, if the benefits are greater than the estimated costs.

There are two basic approaches for CBA (Brent, 2006; Elliot *et al.*, 2007, and Perera, 2008); cost-to-benefit ratio approach ("CBR"), and net benefits approach ("NBR"). CBR approach calculates the total monetary costs of obtaining a project divided by the total monetary costs of benefits or outcomes (*CBR* = co/ben). In CBR approach, a project is considered as cost beneficial if the ratio of the costs to the benefits is less than one. NBR approach calculates total benefits minus the total value of costs (*NB* = ben – co). In NBR formulation, a project is cost beneficial if the net benefits exceed the net costs.

RESEARCH METHODOLOGY

This research is based on qualitative and quantitative data with substantial integration of primary and secondary data (Istijanto, 2005; Mackey and Gass, 2005; Muijs, 2004; Sekaran, 2003). In terms of qualitative data, physical observation, and interviews were conducted to gain the essential information in trying to identify and describe the SEO, including its implementation. To better ensure the attainment of information and data, FGD was also conducted (Mackey and Gass, 2005; Muijs, 2004; Sekaran, 2003), aside from the formal/informal interviews with the officers/management of Company X and Company Y, which were initiated in the mid-2008. The FGD consisted of individuals, who have actively used search engines, made purchases, and/or put-forth online inquiries. Quantitative data were strictly gathered from 4 firms; Company A, Company B, Company C, and Company D, which have relied on search engines to market their products.

Participants of FGD were based on previous acquaintances in various field studies. A total of 50 invitations were distributed to candidates, who made-up of employees of government agencies, employees of private firms, entrepreneurs, doctors, graduate students, and academicians. Other general characteristics include; the candidates' age that ranged from 27 to 50 years old, with a total year of working experience of 4 to 25 years. Out of the initial 50 invitations, there were a mere 16 people responded. This low response rate was mainly due to the pre-set choices of FGD sessions on Sunday (July 3, 2011 in Bangkok), Wednesday (July 6, 2011 in Singapore), Friday (September 23, 2011 in Bandung), Saturday (October 1, 2011 in Jakarta), Wednesday (November 16, 2011 in Kuala Lumpur), and Tuesday (December 27, 2011 in Jakarta). These separate sessions of FGD were attempted to be organized to provide flexibilities for participants, and evaluate the differences in characteristics and responses toward search engines. Participants of FGD were then asked series of questions concerning the use of search engines, frequencies of usage, likelihood of purchase, problems encountered during the actual use of search engines, estimated percentages on trials and errors (prior to making any purchases), and other issues related to the actual experience in using search engines. In

addition, prior to the actual commencement of FGD, participants were instructed to make a note on how many times they have tried to use search engines, clicked any of the available information on the search engines result page, and finally made the purchases and/or use the information provided on the particular website.

In trying to provide proper responses to the initial research objectives, effectiveness is measured from the number of customers and actual sales during a given period, whereas efficiency is measured from the marketing cost perspective (Kosasih and Anantadjaya, 2008; Mackey and Gass, 2005; Muijs, 2004; Perera, 2008; Sekaran, 2003). In cost-benefit analysis, benefits and costs will appear from both utilization of search engine marketing and offline marketing (Kosasih and Anantadjaya, 2008; Mackey and Gass, 2005; Muijs, 2004; Perera, 2008; Sekaran, 2003).

SEO Approach

To conduct marketing by using search engine as the marketing tool does not mean that marketers only need to build a website and simply register it to the search engine. In order to get the effective and efficient result by using Google or Yahoo! as marketing tool, the marketers' websites should appear in the first page of Google result page.

Based on the initial interviews with Company A, Company B, Company C, and Company D, there are some important "SEO rules" that search engine marketers must be aware of. These rules are the factors that influence a web site visibility on the search engine result.

Table 3 provides the average number of website visitors, potential customers, and closing customers for Company A, Company B, Company C, and Company D. Closing deals refer to the number of potential customers, who finally made deals and decided to buy/rent the firms' products. According to the table above, the successful marketing rates for Company A, Company B, Company C, and Company D are explained as follows;

Table 3: Customer Data						
Company	Website Visitors*	Potential Customers*	Closing Deals*			
Company A	600	490	117			
Company B	500	382	62			
Company C	525	411	71			
Company D	650	484	82			
Note: * these fig	ures are extrapola	nted into the period	of 2012.			
	Сотрапу А, 200 трапу С, 2011; С	8; Company B, 2008 Company D, 2011	3;			

Company A's potential customers are $\frac{490}{600} \times 100\% = 81.6\%$. This means that out of 600 people, who have visited Company A's website, a total of 81.6% were influenced.

- Company B's potential customer is $\frac{382}{500} \times 100\% = 76.4\%$. This means that out of 500 people, who have visited Company B's website, a total of 76.4% were influenced.
- Company C's potential customer is $\frac{411}{525} \times 100\% = 78.3\%$. This means that out of 525 people, who have visited Company C's website, a total of 78.3% were influenced.
- Company D's potential customer is $\frac{484}{650} \times 100\% = 74.5\%$. This means that out of 650 people, who have visited Company D's website, a total of 74.5% were influenced.

Interviews with Company A, Company B, Company C, and Company D indicated that such rates, 81.6% (for Company A), 76.4% (for Company B), 78.3% (for Company C), and 74.5% (for Company D), reflected the successful marketing rates when SEO strategy is implemented. The numbers above thus conveyed the significant rate of success for companies. Although Company D displayed a lower rate, the percentage represented a critical rate of success attracting new potential customers.

Upon recent confirmation, FGD results indicated that such response rates were indifferent. Multiple sessions of FGD showed the range of 70% to 85% of response rates. This is to say that there is a minimum of 70% chance, and a maximum of 85% chance, that FGD participants were responding positively to the information provided on the website. The topfive choices for online "merchandise" that FGD participants mostly look for are; (1) entertainment (cafes/restaurants, bars/night clubs, and movie theaters), (2) professional services (lawyers, doctors/surgeons, psychologists, mechanics), (3) travel planners (such as; business/leisure trips, accommodation, transportation on airline/ busses/trains/cruise, and destination hotspots), (4) collectible items (such as; antique and rare items), and (5) automotive items (such as; car sales, accessories, and spare-parts). The results of FGD indicated souvenirs as the least likely online merchandise that they look for. The FGD participants unanimously claimed that they turn into their colleagues, friends and relatives for suggested types of souvenirs, as well as places/ vendors of souvenirs. The most likely types of souvenirs that they seek-out advises-for from colleagues, friends and relatives were mainly

professional-type of gifts for the purposes of office gatherings, outing events, and door-prizes.

RESEARCH OBJECT

Company A is a rental service firm. This firm rents audio visual and documentation equipment for office and individual customers in Jakarta, Bogor, Depok, Tangerang, Bekasi, Bandung, and Bali. Company A was initially established in 2005. Most of its customers include individual, national, and multinational companies. These customers claimed to know Company A from search engines. Since the mid-2007, Company X has also started offering chair rental for individuals, offices, and organizations. To ensure its competitiveness in the marketplaces, Company A applies a simple marketing strategy as follows; wide range services with attractive rental price, and SEO strategy for the effective and efficient marketing tool.

By applying the SEO strategy, Company A allows the potential customers to find links to the company and products information through its website, which is easily accessed through Google or Yahoo! To find this website, there are some examples of keyword that could be typed in a search engine's search box. Such words generate the part of content of the related website before displaying it to the user. Examples of input words for Company A include; LCD, projector, rental, TV plasma, and many others. Usually, interested potential customers will inquire further information via telephone or e-mail.

Since its establishment, Company A has already attracted a total of 3,012 customers from search engines alone. Besides SEO, Company A is also used the more traditional advertising media, particularly in printed media. Nevertheless,

the total numbers of customers generated by these printed media were significantly less.

Company A uses a website to promote and market their products and services information. Company A has 3 sales staffs to answer phones, replying e-mails, dealing with customers, and generating sales orders and invoices. In addition, there are 2 IT staffs to constantly update and maintain the website position in search engines. The IT staffs are also responsible for maintaining computer, telephone lines, and customers' data.

Company B is another example of company that uses search engine as its marketing tool. This company has been successful in relying itself on SEO strategy. The company's website has achieved success by selling various ceramic souvenirs, mugs, and tableware. Company B was initially established in December 2005. Now, Company B uses search engines only, mostly Google and Yahoo! as its "salesperson".

In order to compete at the market, Company B simply utilizes a marketing strategy, as follows; variation of tableware with a minimum order limit to unlimited order, attractive pricing for certain number of order, and SEO strategy for the effective and efficient marketing tool. This company lives and grows from the promotion done solely by other search engines like Google and Yahoo! Though Company B's primary target market is corporations in Indonesia, but it does not mean that there is no opportunities for international sales.

Similar to Company A, by utilizing the SEO strategy, Company B lets the potential customers to find links to this company easily just by typing particular keywords or phrases. Starting in January 2006, a month after Company B's website was initially launched, there were 31 e-

mails and phones. Of those 31 prospects, 5 prospects became their clients. Currently, Company B has attracted a total of 1,382 customers, and this customer base keeps growing steadily.

Likewise, Company C and Company D are yet examples of companies that use search engines as their marketing tool. The companies' websites have achieved success by attracting people into using their services. If Company A and Company B are selling products online, Company C and Company D are offering services online. Types of services offered are; photography (for products not individuals), creative design, company profile, packaging, product activation, promotional tools, software design, programming, software networking, and software maintenance. Though these two companies are not simply relying on search engines only as their "salesperson", the online results were promising. Approximately 70% response rate was considered good for these companies.

COST-BENEFIT ANALYSIS

The measurements on CBA follows the ingredients stated by Brent (2006), Elliott, et al (2007), and Perera (2008) by incorporating sales and expenses to provide parameters on CBR and net benefit for both online and offline marketing.

Average Sales

According to the companies' data, the Table 4 shows the average sales and customers report for Company A, Company B, Company C, and Company D per month.

The average total sales for Company A, Company B, Company C, and Company D were US\$28,207 from SEO, and US\$9,670 from the offline marketing ("OFM"). According to the data

Table 4: Sales Data								
	Company A		Company B		Company C		Company D	
	SEO	Offline	SEO	Offline	SEO	Offline	SEO	Offline
Average potential customers(numbers of customers)	598	80	427	63	137	52	86	69
Average Closing deals (numbers of customers)	150	30	82	13	11	6	18	9
Average sales/month (in thousands of Rupiah)	79,600	15,120	42,875	9,500	41,200	27,500	92,700	31,775
Average sales/month (in USD at Rp. 9,089 /US\$1)	8,758	1,663	4,717	1,045	4,533	3,026	10,199	3,496

above, SEO marketing strategy provides positive impact for all companies;

- Effectiveness since the empirical evidence shows that SEO is able to bring-in more customers. This leads to more potential sales for both firms.
- SEO marketing offers a probability to users or potential customers to connect directly to the company's websites. Websites offer high flexibility in terms of the access time and convenience.
- The promotion is made straight forward for people who are actually looking for it. Since search engine marketing's customers are mostly in "buying mood", it means that by doing SEO marketing, it seeks to connect with people who are already looking for what the marketers' are offering. Hence, it is automatically targeting the market.
- All firms can display full information of their companies or products for 24/7. This is beneficial for all firms and potential customers.

- By using search engine, the service or products will be exposed not only to local buyers, but also to international customers. In fact, unless the websites are written in local language, potential customers may not know the domicile of the firm.
- It allows companies to "pull" qualified prospects toward their products or services.

Costs

The comparison of cost for SEO and OFM is also described the efficiency factor on this study. The Table 5 indicates the comparisons on average total cost between using SEO and OFM. It is apparent that SEO is able to reduce marketing expenses by about 27%.

Cost-Benefit Ratio

It was previously mentioned that benefits are measured based on the average sales, and costs are measured based on the average marketing expenses. Hence, to see the ultimate result of the cost-benefit analysis, to reflect the

Table 5: Marketing Expenses				
Marketing Expenses (on average/month)	SEO (in Rp)	OFM (estimated in Rp)		
Operating expense	15,000,000	15,000,000		
Internet cost	1,500,000	1,500,000		
Advertising expense		35,000,000		
IT staff	7,500,000	3,000,000		
Marketing staff (@ Rp 3,000,000)	9,000,000	9,000,000		
Utility (phone and electricity)	2,500,000	2,500,000		
Shipping expense	3,000,000	1,500,000		
Total average marketing expenses/month (in Rupiah)	Rp. 38, 500,000	Rp. 67,500,000		
Total average marketing expenses/month (in USD at Rp. 9,089/US\$1)	US\$4,236	US\$7,427		

effectiveness and efficiency in these firms, this study incorporates CBR and NBR approach.

Cost-Benefit Ratio approach

Based on the above sales and cost analysis, CBR can be calculated as follows;

• CBR_{SEO} (all companies) = $\frac{4,236}{28,207}$ = 0.15.

This means that to generate \$1 worth of benefit, firms must bear a total cost of 15 cents in SEO.

• CBR_{OFM} (all companies) = $\frac{7,427}{9,230}$ = 0.80. This

means that in order to generate \$1 worth of benefit, firms must bear a total cost of 80 cents in OFM.

As mentioned earlier, a project is considered as cost beneficial if the ratio of the costs to the benefits is less than 1. Hence, based on the calculations, both CBR_{SEO} and CBR_{OFM} fulfill the requirement as being cost beneficial. Nonetheless, CBR_{SEO} bears a much favorable cost benefit of up-to 533% higher than CBR_{OFM} . The above calculations do not really show the significance of SEO against OFM. Hence, separate calculations on Company A and Company B only, may be beneficial to note the differences in CBR. This is simply due to the vastly different characteristics in their "product" offering. As previously stated, Company A and Company B maintain their focus on hard-tangible products. On the other hand, Company C and Company D emphasize on services. The separate calculations are as follows;

 CBR_{SEO} (Company A and Company B) = 4,236

 $\frac{4,236}{13,475}$ = 0.31. This means that to generate \$1 worth of benefit, firms must bear a total cost

of 31 cents in SEO.

- CBR_{SEO} (Company C and Company D) = $\frac{4,236}{13,732}$ = 0.29. This means that to generate \$1 worth of benefit, firms must bear a total cost of 29 cents in SEO.
- CBR_{OFM} (Company A and Company B)

 $=\frac{7,427}{2,708}$ = 2.74. This means that in order to

generate \$1 worth of benefit, firms must bear a total cost of \$2.74 in OFM.

• CBR_{OFM} (Company C and Company D)

 $=\frac{7,427}{6,522}$ = 1.13. This means that in order to

generate \$1 worth of benefit, firms must bear a total cost of \$1.13 in OFM.

Though this is just a simple CBA, those calculations provide the empirical evidence why have people rushed in using online marketing strategy to this day. From those separate calculations between Company A/B, and Company C/D, it becomes apparent that CBR_{SEO} is more cost beneficial than CBR_{OEM}.

Net-Benefit Approach

Based on the above sales and cost analysis, the NBR can be calculated as follows:

- NBR_{SEO} (all companies) = US\$28,207 -US\$4,236 = US\$23,971. This means that the accumulated net-benefit of using SEO is about US\$23,971, which is equivalent to Rp. 217.87 million, converted at the prevailing rate of Rp. 9,089/US\$1, as of December 23, 2011 (http:// www.currency-converter.org.uk, 2011).
- NBR_{OEM} (all companies) = US\$9,230 -US\$7,427 = US\$1,803. This means that the accumulated net- benefit of using OFM is about US\$1,803, which is equivalent to Rp. 16.3 million, converted at the prevailing rate of Rp. 9,089/US\$1, as of December 23, 2011 (http://www.currency-converter.org.uk, 2011).

As previously mentioned in the net-benefits formulation, a project is considered cost beneficial if the net benefits exceeded the net costs. Hence, in this instance, both NBRs for SEO and OFM are positive. This shows that though SEO is able to generate higher netbenefits, OFM is also accumulating positive benefits.

Again, as shown above in separate calculations, re-calculating NBRs for Company A and Company B, as well as Company C and Company D are beneficial;

- NBR_{SEO} (Company A and Company B) = US\$13,475 - US\$4,236 = US\$9,239. This means that the accumulated net-benefit of using SEO is about US\$9,239, which is equivalent to Rp. 83.9 million, converted at the prevailing rate of Rp. 9,089/US\$1, as of December 23, 2011 (http://www.currencyconverter.org.uk, 2011).
- NBR_{SEO} (Company C and Company D) = US\$14,732 - US\$4,236 = US\$10,496. This means that the accumulated net-benefit of using SEO is about US\$10,496, which is equivalent to Rp. 95.4 million, converted at the prevailing rate of Rp. 9,089/US\$1, as of December 23, 2011 (http://www.currencyconverter.org.uk, 2011).
- NBR_{OFM} (Company A and Company B) = US\$2,730 – US\$7,427 = (US\$4,719). This means that the accumulated net-benefit cannot be achieved using OFM. Instead, the use of OFM leads to an accumulated net-cost of about US\$4,719, which is equivalent to Rp. 42.9 million, converted at the prevailing rate of Rp. 9,089/US\$1, as of December 23, 2011 (http://www.currency-converter.org.uk, 2011).
- NBR_{OEM} (Company C and Company D) = US\$6,522 - US\$7,427 = (US\$905). This means that the accumulated net-benefit

cannot be achieved using OFM. Instead, the use of OFM leads to an accumulated net-cost of about US\$905, which is equivalent to Rp. 8.2 million, converted at the prevailing rate of Rp. 9,089/US\$1, as of December 23, 2011 (http://www.currency-converter.org.uk, 2011).

The calculations above show that SEO-based marketing fulfills the requirement as being cost beneficial since it benefits exceed cost. This finding was fully supported by results of FGD sessions. Though they were mainly rely on social networking sites, the participants of FGD indicated that they have also gone online to market various products. The products ranged from selling merchandise, services, vehicles, and other collectible items, all the way to announcing garage sales. Those FGD participants have really enjoyed the significantly minimal costs in utilizing online features.

CONCLUSION AND RECOMMENDATION

As the main purpose of this study is to analyze the efficiency and effectiveness of search engines on becoming a marketing tool, the calculations have shown empirical evidence that utilization of SEO strives for much better CBR as well as NBR. Through the utilization of SEO, it can be concluded that SEO is able to achieve higher number of customers and sales with less cost as compared to the offline marketing implementation.

Search engines revolutionizes in such ways that firms can potentially achieve higher level of effectiveness and efficiency. The success of their modern marketing method is reflected on the relationship between the number of average customers per month, average sales per month, and also the average marketing costs per month. By using some concrete examples of successful search engine utilization with search engine optimization implementation strategy in some companies in Indonesia, this paper expects to provide some factual benefits.

According to the case studies, it is found that search engines are not just another medium or a mere distribution channel to reach potential customers. It is an important and intelligent medium to advertise company's products and services, finding new customers, collecting their information, communicating company information, and maintaining relationships with customers. It can also shorten the sales cycle by using a website that provides purchase information, where and how to buy, and what to expect to pay, as well as generate traffic online and offline. Those reasons make search engines acts not only as a media, but also as a tool that can be useful for marketing purpose. However, there is also "side effect" of implementing search engines as the marketing tool. If search engines decide to change their ways in website ranking, firms system must also change accordingly. In conclusion, using search engines as a marketing tool, has proven to help both firms in achieving; greater effectiveness and efficiency, and higher number of average customers per month, average sales per month, and also the average marketing costs per month.

Recommendation

Implementation of search engines as a marketing tool is highly recommended for micro, small and medium-sized businesses. The reason is, as mentioned earlier, these business establishments usually have tight financial budget for their routine operational expenses. Hence, this online marketing tool and SEO strategy can hopefully be utilized to boost sales of these businesses.

During the attempt to conduct this analysis, it is found that there is a new concept of marketing strategy in the field of search engine marketing. It is called social media optimization ("SMO"). Though SMO is still related to search engine marketing, it is actually different in several ways, such as; primarily the focus on driving traffic from sources other than search engines. In this new strategy, many ways connected as techniques to viral marketing where word-of-mouth is created not through friends or family but through the use of networking in social book-marking, video and photo sharing websites. Hence, it becomes crucial that online marketers should be aware and wellprepared for this new strategy.

REFERENCES

- Abrams R and Eugene Kleiner (2003), *The* Successful Business Plan: Secret and Strategies, 4th Edition, The Planning Shop, Palo Alto, CA, USA. Accessed from http:// books.google.com, retrieved on July 8, 2008.
- Belch George E and Michael A Belch (2003), Advertising and Promotion: An Integrated Marketing Communications Perspective, 6th Edition, McGraw-Hill, New York, USA.
- Boyett Joseph H and Jimmie T Boyett (2003), *The Guru Guide to Marketing*, John Wiley & Sons, Hoboken, New Jersey, USA.
- Brent Robert J (2006), Applied Cost-Benefit Analysis, 2nd Edition, Edward Elgar Publishing, London, UK.
- Curry Jeffrey E (1998), A Short Course in International Marketing: Approaching and Penetrating the Global Marketplace, World Trade Press, San Rafael, CA, USA.

Accessed from http://books.google.com, retrieved on July 8, 2008.

- Dahl Gary R (2007), Advertising for Dummies, 2nd Edition, John Wiley & Sons, Hoboken, New Jersey, USA.
- Elliott Donald S, Glen E Holt, Sterling W Hayden and Leslie Edmonds Holt (2007), Measuring Your Library's Value: How to Do a Cost-benefit Analysis for Your Public Library, ALA Edition, Chicago, Illinois, USA.
- FrÆkjaer E, Hertzum M and Hornbaek K (2000), "Measuring Usability: Are Effectiveness, Efficiency, and Satisfaction Really Correlated?", Proceedings, ACM CHI 2000 Conference on Human Factors In Computing Systems, pp. 345-352, Hague: The Netherlands.
- Gay R, Alan Charlesworth and Rita Esen (2007), Online Marketing: A customer-led approach, Oxford University Press, Oxford: UK. Accessed from http://books.google. com, retrieved on July 8, 2008.
- Google Inc. (2007), Marketing and Advertising Using Google: Targeting Your Advertising to the Right Audience. Custom Publishing.
- Istijanto (2005), *Aplikasi Riset Pemasaran*, P T Gramedia Pustaka Utama, Jakarta, Indonesia.
- Jansen E and Vincent James (2002), NetLingo: The internet Dictionary, Netlingo Inc., Ojai, CA, USA. Accessed from http:// books.google.com, retrieved on July 8, 2008
- Kaliski Burton S (2001), Encyclopedia of Business and Finance, Vol. 1, Macmillan Reference, New York, USA.

This article can be downloaded from http://www.ijmrbs.com/currentissue.php

- Kosasih, Catherine Cecile, and Sam PD Anantadjaya (2008), A Case Study of PT XYZ on Information and Knowledge Sharing via an Improved Corporate Portal, Jurnal Sistem Informasi, vol. 3 no. 2, Universitas Kristen Maranatha, pp. 125-157, Bandung: Indonesia, ISSN # 1907-1221. Available online at www.ssrn.com.
- Lancaster G and Paul Reynolds (2002), Marketing Made Simple, Butterworth Heinemann, Jordan Hill, New York: USA. Accessed from http://books.google.com, retrieved on July 8, 2008.
- Linker J (2007), Leaning Forward: Surviving/ Winning in the Future of Interactive Marketing, Dog Ear Publisher, Indiana: USA. Accessed from http://books.google.com, retrieved on July 8, 2008.
- Mackey, Alison, and Susan M. Gass (2005), Second Language Research: Methodology and Design, Routledge, New Jersey, USA. Accessed from http://books.google.com, retrieved on July 8, 2008.
- Muijs Daniel (2004), Doing Quantitative Research in Education with SPSS, SAGE, New York, USA. Accessed from http:// books.google.com, retrieved on July 9, 2008
- Perera, Catherine Elizabeth (2008), An Analysis of Search Engines as an Effective and Efficient Marketing Tool in Indonesia, *undergraduate thesis, Faculty of Business Administration, Swiss German University*, Serpong, Tangerang, Indonesia.

- 20. Seda Catherine (2004), Search Engine Advertising: Buying Your Way to the Top to Increase Sales, New Riders Publishing, New York, USA.
- Sekaran Uma (2003), Research Methods For Business: A Skill-Building Approach, 4th Ed, John Wiley & Sons, New York, USA.
- Stafford Marla R and Ronald J Faber (2004), Advertising, Promotion, and New Media, M E Sharpe, New York: USA. Accessed from http://books.google.com, retrieved on July 8, 2008.
- http://www.google.co.id, retrieved in July 2008, January 2009, September 2010 and December 2011.
- http://www.internetworldstats.com, retrieved in July 2008, January 2009, September 2010 and December 2011.
- http://www.yahoo.com, retrieved in July 2008, January 2009, September 2010, and December 2011.
- 26. http://www.nielsen-online.com, retrieved in December 2011
- http://www.itu.int, retrieved in December 2011
- http://www.miniwatts.com, retrieved in December 2011
- http://www.comscore.com/press_events/ press_releases/2011, retrieved in December 2011
- 30. http://www.currency-converter.org.uk, retrieved in December 2011



International Journal of Management Research and Business Strategy Hyderabad, INDIA. Ph: +91-09441351700, 09059645577 E-mail: editorijmrbs@gmail.com or editor@ijmrbs.com Website: www.ijmrbs.com



Electronic copy available at: https://ssrn.com/abstract=2316792