Factors Affecting Company's Profile on Web Page

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ABSTRACT

The objective of this paper is to determine the availability of descriptive factors in the company's web page. Descriptive factors are the type of top-level domain name, information on authorship, availability of keyword, availability of description and currency of the website which are derived from the last date of modification.

INTRODUCTION

In order to promote growth, the MSC has seven flagship applications: Electronic governance, multipurpose card, Smart school, Tele-health, E-Business and Technopreneur development. To ensure transparency and smooth flow of development, the Multimedia Development Corporation (MDC) was given the mandate to manage the MSC. During the initial stage, the MDC was a government-owned corporation but later incorporated in order to widen its function as an advisory entity to the government in MSC related issues. The MDC also acts as the MSC promoting body, both locally and globally, a 'one-stop-agency' for companies that are interested to enter the MSC, and ensures that MSC privileges are well practiced. The MDC is entrusted to coordinate the seven Flagship Applications which are spearheaded by government agencies; the flagship applications (Bilal, 2001; De Silva et al., 2018a; De Silva et al., 2018b; Nikhashemi et al., 2013).

Malaysia has demonstrated improvement in connectivity speed coverage. Many homes have Internet access and quite a number of mobile communications in households are 3G enabled. This shows that Internet access is growing and its usage will have an impact on the nation's lifestyle. MCMC 2005 (1st quarter) reported that Malaysia's Internet user per 10,000 inhabitants is 3,413.51, ranked second among ASEAN countries next to Singapore with 5,088.00. The report indicates domestic subscription of broadband at first quarter of 2005 stands at 294,646, a 27% increase compared to the previous year's first quarter. Even though the penetration rate is low, MCMC through its Community Communication Development Program (CCDP) is lobbying to increase community access to the network services and facilities. As most MSC status companies are technology based and supported by the best information network in the country, it is expected that these companies will not only have a web presence but will also manage to inform or convey their presence efficiently.

LITERATURE REVIEW

Past studies pointed out that disabled friendly websites not only benefit the handicapped but also highly accessible to mobile devices such as cell phones and PDA. These sites utilize simple graphics, Flash and Java which are small in size, making it accessible to older versions of web browsers or hardware. A critical guideline by W3C recommends that all images contain alt tags so that the handicapped can read them on screen readers. Colors are also a factor in developing an accessible site; contrasting colors helps the visually impaired to capture the information better. Flash and Java is the preferred choice for alternative auditory content. Improving sites to accommodate these requirements will increase their audience. The disabled in the US form a significant market segment -.54 million people and growing (Chau, Zeng, Chen, Huang, & Hendriawan, 2003; Dewi et al., 2019; Pambreni et al., 2019; Tarofder et al., 2017).

The study has proposed a measurement concept - customer inefficiency and website design inefficiency. Customer inefficiency implies when the customer is not utilizing the webpage to its optimum function and this can be remedied by educating and informing customers of its function. Poor website design with low customer appeal is a form of website design inefficiency. Redesigning the webpage may eliminate this implication. The study measured the effectiveness of e-commerce website designs using data envelopment analysis (DEA) and concluded that it is very difficult to observe consumer behavior individually. Even though it is possible to gather information on consumer online buying patterns, it is not clear how consumers browse in a virtual store. Measurements on efficiency of e-commerce websites do not provide a clear immediate indication on the need of improvement to the management since the consumer individual behavior (buying online) is non-determinable.

Past studies discussed the criteria applied by scholars in most fields to evaluate printed material for information found on the Internet. The major criterion used in evaluating information is most probably authorship, the basis and credibility of the author is important to determine the quality of the information. Authorship can be obtained from the website that published the information; at times the link of the author's biography is also available. The publishing entity will give an indication that the author's work has been screened to meet the

required standards. In the case of Internet source, the publisher can be identified with its domain name or server where the information is located. Information on a personal website might not be as credible as an academic website or a publishing house unless the personal website has the author's credential to indicate his/her authority on the subject matter. Since data can be manipulated in many ways, it can be used to represent a point of view which may be biased. Evaluating points of view is based on authorship or affiliation; authors who are affiliated to specific organizations and publish information on the organization's server may reflect the agenda of that organization. Referral and accuracy of the information is important especially if the author is unfamiliar with it or the subject matter is new. Credibility may be summed as truth and judgment worthy, however there is more depth to this; it is required that the credible entity has qualification for making epistemic judgment, criticality, relevance and interest on behalf of the audience. In the context of the Internet, credibility is difficult to ascertain as there are many factors that overrides the process such as access and site quality judgment that rests upon millions of virtual users (Chen & Sycara, 1998; Doa et al., 2019; Maghfuriyah et al., 2019; Nguyen et al., 2019).

Past studies argued the elements that are needed to assess credibility of online information. The credibility of a website can be accessed by observing its visual layout and visual quality, its URL or return mail address which may indicate what and whom the site represents and reflects. "Freshness" of the website is also important as it shows that the content is being monitored and updated frequently therefore there is an authority that ensures the accuracy of the information on the site. Timeliness of the information is the currency of the information, the importance of currency varies from types of information it represents; information that represents data have higher priority of currency compared to literature reviews. IBM High-Volume Website Team 2001 suggests design practices that can improve performance and capacity of a website based on analyzed case studies. Performance is measured with three elements; efficiency of presentation (size), organization of content (packaging) and administration of the website (delivery). The size of a web page can be reduced with smaller items; menu should be on the client side and avoid tables with graphics as it is slow to load. Rollovers GIF files may attract attention but does not contribute to the purpose of the site. Reducing rollover files will reduce the size of the site as well. Complexity of items affects the size of the site as well, animated GIF, Java script, Java applet and large table contributes to the complexity of the site (Cheng, 2009; Pathiratne et al., 2018; Rachmawati et al., 2019; Seneviratne et al., 2019; Sudari et al., 2019; Tarofder et al., 2019).

Delivery of the site depends on the number of connections and server access each and secured connection takes time to setup up but persistence will reduce the number of connection setup overhead. It is recommended each site maintains not more than four connections at any time as connection can exhaust the number of available ports and threads. It is best to have small related items on the same server to avoid multiple connection process to other servers; each time a connection is broken, it requires time to re-setup, this slows the download process. Packaging of data from the server also requires attention in order to optimize download time, items requested should be done sequentially to allow smoother page loading process. SSL and encryption causes increase in total data size, it does not perform well with dial up connection compression scheme as HTML is converted into a long sequence of numbers.

Past studies observations on web usability has concluded that users demand for high speed and it should be the overriding design criterion for any web page development. The user is more productive when the response time is less than a second to navigate freely in an information space. This was highlighted by studies that was conducted by IBM in the 1970s and 1980s. Even though users are replacing slow modems (14.4) with faster ones (28.8 or 33.6), the amount of users that is connected at modem speed remains the same. The response time that the user is experiencing is determined by several factors from the server; through put of the server, server connection, nature of the Internet, user's connection and the speed of users' browsers. In order to maintain a small page size, graphics and multimedia elements should only be used if it serves a purpose in presenting the information. In a recent survey, it is estimated that 26% of home users in Europe are on broadband and in 3.5 years broadband penetration in the US will increase from 7% to 38% or 9% growth rate. In Asia, small countries may have high broadband penetration but in general, the number is still small. With the assumption of 9% growth of broadband penetration in the US, it is estimated that 90% of Internet users will have broadband access by 2011. Current high speed connection at 1Mbps is insufficient, many services require ten times the current speed. The race to upgrade will forever continue demanding endless improvements (Eirinaki & Vazirgiannis, 2003).

Degree of visitor's interaction on a website should be measured in addition to the common number of visits or hits. Measuring browsing time, depth, accessed pages and number of repeated visit is highly recommended as it reflects more accurate website utilization. Study of relationship for interactivity has found that memory storage is unrelated but organizational hypothesis does have a strong effect. Multimedia elements such as audio and video may enhance browsing experience but it increases the download time to access the page which is undesirable; this support the rule that speed is the prime factor of web querying. The result shows that industrial buyers are highly experienced and skilled in locating information, therefore navigation is not a significant factor. Marketing communication content results reveal that it is important to promote corporate identity on a website as it gains more customer trust in the market. Firms should consider gathering information on customer satisfaction as there is evidence that this element does affect business performance.

Past studies compared the feedback of Malaysians and Australians on website design which is a part of the integrated online marketing model. The study variables are: atmospheric, news stories, signs, product and services. The study findings show that there are no significant difference between Malaysians and Australians for atmospheric preferences and signs. Both countries do not show any significant difference for new stories either. This illustrates that new stories is significant in competing websites. However, the study shows biasness from the competitors; sites that originated from the home country seems to have more appeal, local design and influences do have an effect on attractiveness. The study conducted concluded that Australians prefer an environment with low context and high explicit communication and comparatively Malaysians do not have significant differences (Hassan, Jones, & Klinkner, 2010).

Past studies examining the effectiveness of firms' websites gauged from the user's point of view. Within the survey of six sectors, retail has the best overall performance and out of the total sample, 30% has online transaction facilities and charges users for accessing their website. These companies developed their site very well and have high quality content. From the survey, the overall analysis suggests that retail has good graphic content and is very appealing but lacks innovation. There are no charges imposed for retail sites. E-commerce sites have the highest ease of access and structure but low in unique features. However, financial and banking services is the most user friendly but has low unique features. Even though entertainment and leisure have the highest graphic quality and content, it suffers from slow access time due to the size of the data on the site. On the other hand, tourism and travel sites have good access speed and is very informative for the user. Information services score the highest for useful information resources and content but poorest in graphic content. This explains why information services sites are less appealing. In general, 7% out of 30% of sites that provide online transaction charges their customers. Findings also conclude that integration of IS with e-commerce is important to coordinate the flow between Internet and internal IS.

Past studies discussed the importance of understanding how the content management (CM) market is evolving. CM allows website contributors; IT, web developers, marketing, human resource and others to update content regularly in a secure and controlled environment without degrading the quality of the website. It is predicted by researchers that companies worldwide will save $1.25 trillion in 2002 in utilizing the Internet. CM vendors have been targeting large companies since service charges are considerably high for the past decade, solutions may cost from $10,000 to $1 million depending on the number of pages, users and functionality. However, recently, CM solutions have become more affordable, off the shelf solutions which are tailored towards small and mid-size companies cost $3,000 to $25,000 (Hulth & Rydevik, 2011; Nikhashemi et al., 2017; Tarofder et al., 2019; Ulfah et al., 2019; Tarofder et al., 2016; Udriyah et al., 2019).

The Dublin Core Metadata Initiative (DCMI) is a forum which is established to develop interoperable online metadata standards which support a wide range of business models and purposes. DCMI goals are:

1. Simplicity of creation and maintenance – Recommended elements set is kept at a minimum to allow non-specialists to create simple records which are cost efficient and retrieval effective.
2. Commonly understood semantics – Reduce terminology in script to promote better communication between Internet users and application developers.
3. International scope – Expand the usage of element set from English to more localized languages around the world.
4. Extensibility – Promote perceive retrieval of documents regardless of access platform.

DCMI has outlined recommendations that should be included in the development of a webpage. Its recommendation covers a wide aspect of a website. However DCMI element set is only a guideline which is only a recommendation. DCMI recommendation covers from the information of the person that contributes to the content of the page to graphics and images used in the web page. DCMI recommendation is summarized in Table 2 where recommended elements is to be included in the document script (Jones & Purves, 2008).

The usage of the elements that is recommended by the DCMI is illustrated in Figure 2. Each element is declared in the Meta tag of every document, declaration of each element will establish a standard where every developer will provide all the vital information, where element declaration can be read by any platform which can access resources.

With these information provided by the developer, resource credibility and value can be determined. Credibility and accountability of the source can be identified besides protecting the intellectual material contributed during development. W3C is an international consortium dedicated to the creation of web standards and guidelines. The W3C recommendation for website standard was published on 24th December, 1999. This publication extensively covers all aspect of website development. This extensive coverage is necessary in order to promote equal standards to all developers and users. Latest recommendation of the W3C is contained in HTML 4.01 Specification publication; it acknowledges HTML as the publishing language of the World Wide Web. The W3C recommends that web pages should follow its guidelines for presentation language, object models and markups. All these categories have its own standards and all these categories must be standardized in order for the website to be standard (Jones & Purves, 2008).

XHTML is recommended as the structural languages for websites as it is adaptable to new elements introduced by the developer. This language allows extension by modulation. XHTML is coded where DOCTYPE must be declared in the coding. Object models should be in CSS format as recommended by W3C. It contains two parts: selector and declaration. In the declaration part there is a subclass, property and value. The H1 is the selector and color and blue is the declaration, the line itself is a CSS style, combinations of these styles will influence the presentation of the document. Website authors and developers are only recommended to follow these guidelines if they want a specific presentation of the website. CSS allows grouping of objects which reduces sheet size, where H1 is declared outside the selection list. Groupings also allows inheritance. If an object is declared as a sub object of a parent object, it will inherit the properties of the parent object; this again reduces the sheet size of the document.

From the article survey and review, the criteria for analysis of the website can be derived. The definition of each criterion is defined as follows:

1. Domain verification – The top-level domain name that signifies the entity that is represents. It is also used to signify the type and location of the site
2. Currency – The last updated date of a website signifies the relevance of the information according to time.
3. Authorship – The person or entity that is accountable or the information that is published on the website.
4. Description – Text that contains summary or phrases from the website that identifies the content of the site and the information that it represents

Keyword – A significant phrase or word that is extracted from description, it can be the main word or phase of a subject matter.

METHODS

Research was conducted using a Pentium 4 HT 2.80 GHz with 512 Mb of RAM and 128 Mb graphic card, running on Windows XP computer, TM Streamyx 512k broadband

running at 350 to 510 kbps connection to the web browser, Internet Explorer 6.0. The website was tested using WebSiteOptimization.com, Paessler Site Inspector and Vigos AG Website Analyzer. For data analysis and presentation, Analyze-It version 1.71 for Excel was used for this purpose. Paessler Site Inspector is a set of comprehensive website analysis tool that incorporates selected online application into one organized window. This application is required to be installed and run on the testing terminal. To analyze a website, a URL is required to be keyed in and a report of that URL will be generated. Report complied consists of website properties, metadata summary and page content. Data that is collected from this application are: direct or re-direct domain, authorship, keyword, description and update date. This application recommendation and analysis are heavily based on the recommendation for website standards by W3C (Kammenhuber, Luxenburger, Feldmann, & Weikum, 2006).

VIGOS AG Website Analyzer is a software that simulates website compression performance. This application is required to be installed and run on the testing terminal and analyzes the website once the URL is provided. This software allows the user to view the testing progress and provide detail information on the data that is currently being loaded; location of the file in the server, type of data and size of data. The report that is generated from the analysis shows the number of objects, and size of the website. However, there is no data collected from this application as it is used to reinforce data that is acquired from WebOptimization.com and Peassler Site Inspector.

Research criteria are constructed from the elements gathered from literature review, criteria is divided into two major categories; descriptive and technical, categorization is required since there is more than one factor in each category. The first category is concerned with credibility and source of information on the website. The second category is concerned with the technical aspect that consists of time taken to access a particular website and the total size of the website that is required to be downloaded for access.

The first category is descriptive factor, its purpose is to gather website credibility data which consists of domain verification, currency, authorship, description and keyword. This is classified as descriptive actor. Data type that is collected for each criteria are as follows:

1.   Domain verification – The top - level domain names: .com, .com .my and .net
2.   Currency – Data that is collected is in a form of: days
3.   Authorship – Information of authorship: Yes or No, marked as (y) or (x).
4.   Description – Availability of content description: Yes or No, marked as (y) or (x).
5.   Keyword – A significant phrase or word: Yes or No, marked as (y) or (x).

Names of MSC companies are required for sample; the list of MSC Status Companies is acquired from the MSC's web page at http://www.msc.com.my/cs/company/. Companies are selected randomly within its sector with no specific criteria, 100 companies were selected from seven sectors that has been predetermined by the MSC, and the sectors are:

1.   Consulting
2.   Software development
3.   Hardware development
4.   Life science
5.   Communication
6.   Internet based business
7.   Computers

An average of fourteen website that is selected from each sector, it is assumed that sample of each sectors is adequate for representation.

ANALYSIS

The first observation is domain name, there are five types of domain names that is observed during the data collection which is: .com, .com.my and .net. Table 1 presents top-level domain name observation. 69 sites has its top-level domain name .com.my, 29 .com and two for .net.

Table 1: Top-level domain name observation.

Domain	.com	.com.my	.net
Observation	29	69	2

This observation shows that websites in the sample are representing a credible entity as most of the websites has .com representing a commercial focus entity which is regulated by VeriSign a global Internet directory authoritative body. The extension to the .com, .my shows Malaysia as the location of where the server that contains the site resides and might indicate the origin of the company (Ma, Li, & Yang, 2016).

Findings of the websites test results are represented in Figure 4 and the mean of data is derived from the number of website per sector. Since data for each factor were obtained from different tools, the error varies from one factor to another. Currency has the error factor of ± 0.951, authorship ± 0.787, description ± 1.618 and keyword ± 1.704. In general, findings show that most websites contain the information of last update date; comparatively the highest factor that is available in the descriptive factor category, mean of 9.8 sites in each sector contains this information.
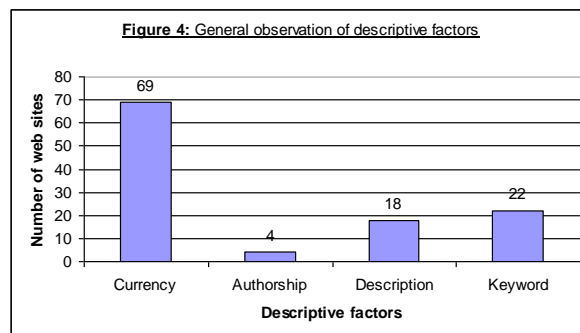

Figure 4: General observation of descriptive factors

Figure 1: Descriptive Factors

In contrast, websites that contains authorship information, is the lowest observation among the factors, the mean of authorship information availability in the website is 0.57, and this shows that on the average there is less than one site in each sector that contains authorship information. As mentioned, authorship information is vital in order to evaluate the credibility of the source and information published on the website. Description of a website is available in eighteen websites and twenty two websites contains keywords, even though this is higher than authorship, it is relatively lower compared to currency. The mean of both factors are 2.57 for description and 3.14 for keyword. Due to low availability of description and keyword information in the websites, there is a very high possibility that sites without these elements are not captured by search engines during user

queries. Derived from general observation description, the overall data shows that the highest descriptive factor is currency followed by keyword, description and the least is authorship (Mager, 2012).

Data observation for currency is scrutinized further to determine the "freshness" of websites. In order to do so, data has been divided into sub categories. Data of website currency is categorized into thirty day period intervals; 0 – 30, 31 – 60, 61 -90, 91 – 120, 120 above and Not available. Figure 4.2 presents data that was collected for currency of website in days. Most of the websites do not have currency information; this is represented by thirty one sites which are in the not available category. Twenty eight sites are one hundred twenty days old and six sites are between ninety one to one hundred twenty days old, the error of currency is ±1.937.
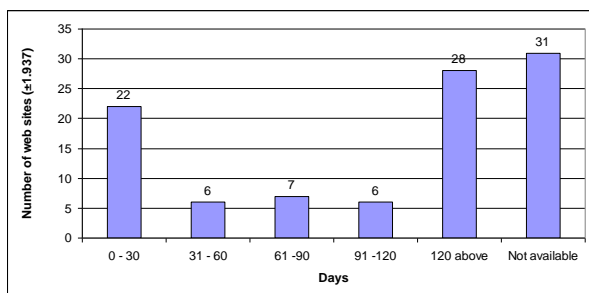

Figure 2: Website currency in days

Web pages that are thirty one to sixty days old and sixty one to ninety days old are six and seven sites each. There are twenty two websites that are thirty or less days old. Relatively the number of websites that does not contain currency information is the highest in the observation slightly higher than websites that is more than one hundred and twenty days old. Websites' currency that are between thirty one days and one hundred and twenty days is low, with the mean of 6.33 sites per period. In addition, distribution of currency is more on the two ends of the period; there is a high number of sites that is less than thirty days old and more than one hundred and twenty days compared to the number of sites that is categorized between the two periods (Malinský & Jelínek, 2010).

Examining further on website currency, data is categorized according to sectors with the same thirty days period interval. Table 4.2 present the currency of website by sector, first life science sector has 23% websites that is less or equal to thirty days, 8% between thirty one to sixty days, 23% between sixty one to ninety days, 8% more than one hundred and twenty days and 38% of sites do not contain currency information. This sector does not contain sites that are ninety one to one hundred and twenty days old.

The next sector is computers; this sector has equal percentage of 31% sites that is more than one hundred twenty days old and unavailability of this information. In addition, it also have the same percentage of 8% for sites that is less or equal to thirty days, thirty one to sixty days and ninety one to one hundred twenty days old. For this sector, there are 15% of websites that are between sixty one to ninety days old.

The following sector is consultancy with 33% of its websites are less or equal to thirty days and more than one hundred and twenty days. In this sector, both websites that are between thirty one to sixty days and sites that do not contain currency information stands at 13%. 7% of websites in this sector are ninety one to one hundred twenty days from previous update process. This sector

does not contain websites that are between sixty one to ninety days from previous update date (Markey, 2007).

Table 2: Website currency by sector

Sector/Days	0 - 30	31 – 60	61 - 90	91 - 120	120 above	Not available
Life science	23%	8%	23%	-	8%	38%
Computers	8%	8%	15%	8%	31%	31%
Consultancy	33%	13%	-	7%	33%	13%
Communication	27%	13%	-	7%	20%	33%
Hardware development	21%	-	14%	14%	14%	36%
Software development	13%	13%	-	-	40%	33%
Internet based business	13%	-	-	7%	47%	33%

Most of the communication sector websites do not contain currency information which consists of 33% of its websites. 27% websites within the sector are less or equal to thirty days followed by 13% websites that are between thirty one to sixty days. There is no indication that this sector has sites that are between sixty one to ninety days. In this sector, 7% of the websites are ninety one to one hundred twenty days and 20% is more than one hundred and twenty days from the recent update date (Stenmark, 2008).

Hardware development design sector is the second highest sector at 36% next to life science that does not contain currency information in its websites. Most of its websites are within the sixty one to ninety days, ninety one to one hundred twenty days and more than one hundred and twenty days which consist of 14% additional to 21% of websites that are less or equal to thirty days. Software development is the second highest sector that contains websites that are more than one hundred and twenty days. The percentage is at 40%. 13% is less or equal to thirty days and between thirty one to sixty days is sharing. Finally, Internet based business sector shows that 47% of its web pages are more than one hundred and twenty days, which makes it the highest among the sectors. This sector does not contain any sites that are between thirty one to sixty days and between sixty one to ninety days, but 13% of its sites are less or equal to thirty days followed by 7% of websites is ninety one to one hundred twenty days. 33% of websites in this sector does not contain currency information. In general, it is observed among the sectors that Consultancy has the highest percentage of websites that is less or equal to thirty days and Internet based business is ranked first for sites that are more than one

hundred and twenty days. Life science sector has the most websites that do not contain currency information.

Derived from general observation results, Table 3 presents the distribution percentage of website loading speed by sector. Loading time by sector shows that websites that load within twenty seconds or less has the highest percentage, concurring the general observation result. Life science has the highest percentage of 77% that its website loads within twenty seconds or less, followed by Internet based business 73%, consultancy 60%, computers 54%,software development 53%, hardware development 43% and communication 40%. For websites that load between twenty one and forty seconds, the computing sector has the percentage of 46% highest among the sectors, 40% for software development, 33% for communication, 21% hardware development, 20% consultancy, 15 % for life science and Internet based business does not have any website in this category.

Only three observations that is recorded for loading time in the interval of forty one to sixty seconds which is from consultancy 13%, communication 13% and hardware development 14%. The communication, software development and Internet based business sectors have 7% of their websites loading time between sixty one to eighty second, life science at 8% and hardware development 14%. Computers and consultancy does not have any websites that are in this category. There is only one sector that is present in the eighty one to one hundred and one hundred one to one hundred twenty seconds class, which is Internet based business 13% and hardware development 7%. Loading time that is one hundred twenty second above has three sectors that are categorized in it, consultancy, communication and Internet based business. These sectors have 7% websites each that loads above hundred twenty second period (Tawileh et al., 2010).

Table 3: Loading time by sector.

Sector\Time	0 - 20	21 – 40	41 - 60	61 - 80	81 - 100	101 - 120	120 above
Life science	77%	15%	-	8%	-	-	-
Computers	54%	46%	-	-	-	-	-
Consultancy	60%	20%	13%	-	-	-	7%
Communication	40%	33%	13%	7%	-	-	7%
Hardware development	43%	21%	14%	14%	-	7%	-
Software development	53%	40%	-	7%	-	-	-
Internet based business	73%	-	-	7%	13%	-	7%

Over all, the loading time by sector shows that most web pages takes not more than forty seconds to access regardless of sector. Mean of 57.14% of websites from all sectors load not more or equal to twenty seconds. However, the assumption that size has a significant effect on speed is yet to be studied.

Website size is determined by many independent factors. There is no common standard on the size of a website and objects types used. The size of the website is exclusively determined by the developers or the requirement set by the firm. Figure 2 presents the general observation distribution of website size in kilobytes (Kb) with the error of ±3. Data is categorized into 10Kb intervals; 0 – 10, 10.1 – 200, 20.1 – 30, 30.1 -40, 40.1 – 50 and 50 above.
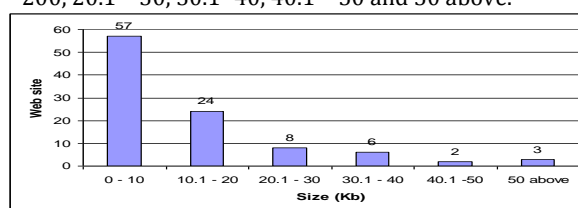

Figure 3: Website size in kilobytes (kb)

From the observation, there is fifty seven sites where size is less than ten kilobytes, twenty four sites size between 10.1 and twenty kilobytes. The rest of the observation shows eight sites where sizes are between 20.1 to thirty, six sites where sizes are from 30.1 to forty, two sites for site sizes between 40.1 and fifty and finally three sites that are sized fifty kilobytes and above. Data is classified further according to sector to investigate the distribution of website sizes among the sectors.

The availability of currency information is measured against Malaysian based companies as shown in Figure 3. United States and UK & Ireland have the same percentage of currency availability in their websites. 45% websites from this country which represents its local company contain website currency information. Japan on the other hand has significantly higher percentage of websites that contains currency information; 64% of Japanese company's website contains currency information.
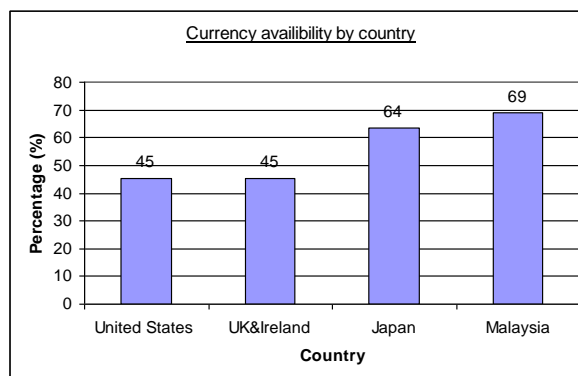

Figure 4: Currency availability by country

Information, this makes Malaysia the highest percentage of websites that contain currency information. Among the four countries observed, Malaysia has the highest

percentage of websites that contain currency information followed by Japan and both United States and UK & Ireland. Observation for description information of websites among countries is shown in Figure 4. Websites from the United States has the most descriptive information, 73% of its websites provide description of its content. This is followed by UK & Ireland 64%, Japan 45% and Malaysia 18 % (Xiang & Pan, 2011).
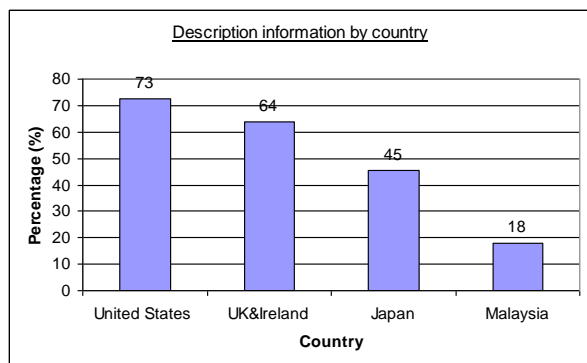

Figure 4: Description information by country

The percentage of Malaysia's descriptive factor is only contributed by the communication and consultancy sector among the seven sectors that was observed. Locally, these sectors contribute 27% each to the description information availability from MSC Status Company's website. This figure is alarming as United States websites that contain this information is four times that of Malaysia's. Furthermore, Japan which is next to Malaysia, third in the observation has more than twice the percentage of description available in its websites.

Analysis of site size and loading time indicates that mean for website size is 129.688kb and mean for loading time is 27.900 seconds, with the percentage of 62.7% speed of site dependent on the size. The study accepts that these means are valid representation of sample data. Substituting the loading time mean of 129.688kb into equation 2 which gives:

$Yi = 2.384 + 0.197(129.688)$

$Yi = 27.933$

Where Yi is loading time in seconds, which means that from the simple linear regression equation, the average loading time for site size of 129.688 is 27.933 seconds.

Table 4: Summary result for least-square method

Compared calculated mean of loading speed 27.900 seconds with loading speed from the simple linear regression equation, 27.933 seconds, results the difference of 0.033 seconds. For this study it is acknowledge that the difference of 0.033 seconds is an insignificant time period as it is too minute for realization. Therefore it is concluded that mean of loading time for accessing a website is 27.917 seconds; mean derived from the sum of calculated loading mean and loading speed from the simple linear regression equation. The relationship between site size and loading time is identified as a positive relationship (Zhou, Li, & Tang, 2004).

DISCUSSION AND CONCLUSIONS

As a growing communication medium, the World Wide Web has become the virtual arena where information is sought and exchanged by millions of users. Internet allows users to customize searchers where information volume is borderless and cost or hassle free. The concept of information super highway is a major drive for the development of the Multimedia Super Corridor. Therefore MSC Status Companies should take the opportunity to make their presence noticed in the virtual world. This can be done through a website that represents them on the Internet and to inform and promote their products and services to a wider audience.

These mix findings does not indicate clearly the efficiency of a website as some factors present are significantly higher than others. For instance, the availability of currency information is 69%, significantly higher than authorship information which is only 4%. This creates the argument that most websites are up-to-date but the information credibility is highly questionable since there is lack of accountability for the information. Currency of a website depends on the type of entity it represents, business domains are highly active; it is being updated consistently to reflect latest developments. Entertainment domain changes rapidly, its web pages has the highest percentage in web page changes; it is likely that the domain names are not retained for a long period of time, either. However, websites that are science and society related are more static in terms of contents and per page change (Tan, Foo and Hui 2001).

The first objective of this paper is to determine the availability of descriptive factors in the company's web page. Descriptive factors are: the type of top-level domain name, information on authorship, availability of keyword, availability of description and currency of the website which are derived from the last date of modification. From the data analysis that has been conducted, the objective is concluded as follows:

It has been determined in general that websites tested do not enclose descriptive information. Less than half of the websites tested contain the necessary information of the descriptive factor and only a small number of websites have authorship information. However, these sites are credible as its top-level domain name are mostly .com.my which reflects the credibility of the entity it represents.

REFERENCES

1. Bilal, D. (2001). Children's use of the Yahooligans! Web search engine: II. Cognitive and physical behaviors on research tasks. Journal of the American Society for Information science
2. Technology, 52(2), 118-136.
3. Chau, M., Zeng, D., Chen, H., Huang, M., & Hendriawan, D. (2003). Design and evaluation of a multi-agent collaborative Web mining system. Decision Support Systems, 35(1), 167-183.
4. Chen, L., & Sycara, K. (1998). WebMate: A personal agent for browsing and searching. Paper presented at the Proceedings of the second international conference on Autonomous agents.
5. Cheng, A. Y.-n. (2009). Affordances of Learning with Web Search Engines: A Case Study of Undergraduate Students in Hong Kong. International Journal of Learning, 16(6), 20-30.
6. Eirinaki, M., & Vazirgiannis, M. (2003). Web mining for web personalization. ACM Transactions on Internet Technology, 3(1), 1-27.
7. Hassan, A., Jones, R., & Klinkner, K. L. (2010). Beyond DCG: user behavior as a predictor of a successful search. Paper presented at the Proceedings of the third ACM international conference on Web search and data mining.
8. Hulth, A., & Rydevik, G. (2011). GET WELL: an automated surveillance system for gaining new epidemiological knowledge. BMC Public Health, 11(1), 252.
9. Jones, C. B., & Purves, R. S. (2008). Geographical information retrieval. International Journal of Geographical Information Science, 22(3), 219-228.
10. Kammenhuber, N., Luxenburger, J., Feldmann, A., & Weikum, G. (2006). Web search clickstreams. Paper presented at the Proceedings of the 6th ACM SIGCOMM conference on Internet measurement.
11. Ma, S., Li, S., & Yang, H. (2016). Utilising Creative Computing and data mining techniques to analyse queries in a meta-search system. Paper presented at the 2016 22nd International Conference on Automation and Computing (ICAC).
12. Mager, A. (2012). Algorithmic ideology: How capitalist society shapes search engines. Information, Communication
13. Society, 15(5), 769-787.
14. Malinský, R., & Jelínek, I. (2010). Improvements of webometrics by using sentiment analysis for better accessibility of the web. Paper presented

at the International Conference on Web Engineering.
15. Markey, K. (2007). Twenty-five years of end-user searching, Part 1: Research findings. Journal of the American Society for Information Science
16. Technology, 58(8), 1071-1081.
17. Stenmark, D. (2008). Identifying clusters of user behavior in intranet search engine log files. Journal of the American Society for Information Science
18. Technology, 59(14), 2232-2243.
19. Tawileh, W., Mandl, T., Griesbaum, J., Atzmueller, M., Benz, D., Hotho, A., & Stumme, G. (2010). Evaluation of five web search engines in Arabic language. Paper presented at the LWA.
20. Xiang, Z., & Pan, B. (2011). Travel queries on cities in the United States: Implications for search engine marketing for tourist destinations. Tourism Management, 32(1), 88-97.
21. Zhou, J., Li, K., & Tang, L. (2004). Towards a fully distributed p2p web search engine. Paper presented at the Proceedings. 10th IEEE International Workshop on Future Trends of Distributed Computing Systems, 2004. FTDCS 2004.

22. De Silva A.D.A., Khatibi A., Azam S.M.F. (2018a). Can parental involvement mitigate swing away from science? Sri Lankan perspectives, Cogent Education
23. De Silva A.D.A., Khatibi A., Azam, S. M. F. (2018b). Do the Demographic Differences Manifest in Motivation to Learn Science and Impact on Science Performance? Evidence from Sri Lanka, International Journal of Science and Mathematics Education
24. Delafrooz N., Paim L.H., Khatibi A. (2009). Developing an instrument for measurement of attitude toward online shopping, European Journal of Social Sciences
25. Dewi N.F., Azam, S. M. F., Yusoff S.K.M. (2019). Factors influencing the information quality of local government financial statement and financial accountability, Management Science Letters
26. Doa N.H., Tham J., Khatibi A.A., Azam S.M.F. (2019). An empirical analysis of Cambodian behavior intention towards mobile payment. Management Science Letters
27. Maghfuriyah A., Azam, S. M. F., Shukri S. (2019). Market structure and Islamic banking performance in Indonesia: An error correction model, Management Science Letters
28. Nguyen H.N., Tham J., Khatibi A., Azam S.M.F. (2019). Enhancing the capacity of tax authorities and its impact on transfer pricing activities of FDI enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province of Vietnam , Management Science Letters
29. Nikhashemi S.R., Paim L., Haque A., Khatibi A., Tarofder A. K. (2013). Internet technology, Crm and customer loyalty: Customer retention and satisfaction perspective , Middle East Journal of Scientific Research
30. Nikhashemi S.R., Valaei N., Tarofder A. K. (2017). Does Brand Personality and Perceived Product Quality Play a Major Role in Mobile Phone

Consumers' Switching Behaviour? Global Business Review

31. Pambreni Y., Khatibi A., Azam, S. M. F., Tham J. (2019). The influence of total quality management toward organization performance, Management Science Letters

32. Pathiratne S.U., Khatibi A., Md Johar M.G. (2018). CSFs for Six Sigma in service and manufacturing companies: an insight on literature, International Journal of Lean Six Sigma

33. Rachmawati D., Shukri S., Azam, S. M. F., Khatibi A. (2019). Factors influencing customers' purchase decision of residential property in Selangor, Malaysia, Management Science Letters

34. Seneviratne K., Hamid J.A., Khatibi A., Azam F., Sudasinghe S. (2019). Multi-faceted professional development designs for science teachers' self-efficacy for inquiry-based teaching: A critical review, Universal Journal of Educational Research

35. Sudari S.A., Tarofder A.K., Khatibi A., Tham J. (2019). Measuring the critical effect of marketing mix on customer loyalty through customer satisfaction in food and beverage products, Management Science Letters

36. Tarofder A.K., Azam S.M.F., Jalal A. N. (2017). Operational or strategic benefits: Empirical investigation of internet adoption in supply chain management, Management Research Review

37. Tarofder A.K., Haque A., Hashim N., Azam, S. M. F., Sherief S. R. (2019). Impact of ecological factors on nationwide supply chain performance, Ekoloji

38. Tarofder A.K., Jawabri A., Haque A., Azam S.M.F., Sherief S.R. (2019). Competitive advantages through it-enabled supply chain management (SCM) context, Polish Journal of Management Studies

39. Tarofder A.K., Nikhashemi S.R., Azam S. M. F., Selvantharan P., Haque A. (2016). The mediating influence of service failure explanation on customer repurchase intention through customers' satisfaction, International Journal of Quality and Service Sciences

40. Udriyah, Tham J., Azam, S. M. F. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs, Management Science Letters

41. Ulfah R., Amril Jaharadak A., Khatibi A.A. (2019). Motivational factors influencing MSU accounting students to become a certified public accountant (CPA), Management Science Letters