Abstract

From restricted access to a privileged minority and then to the general public, the Internet has been evolving. Indeed, there are now millions of websites and billions of web pages. Businesses must optimize their websites for it to be found rapidly by search engines. This gave rise to the concept of Search Engine Optimization. The main goal of SEO is to boost the placement of websites in search results list of search engine. The aim is to get ranked on the first page of the search results. It is the first page of the search results that 90% of Internet users will ever visit. The main aim of this paper is to show how SEO can benefit the population of Mauritius. We also analyzed the factors that search engines take into consideration to rank websites. The paper also discusses how SEO is having a negative impact on search results.

Keywords— Advertising, Internet, Search Engine Optimization, SEO

1. Introduction

Information and Communication Technology is currently the fifth pillar Mauritius economy. In 2009, it represented 5.7% of the GDP. The vision of the Mauritian government is to metamorphose the country into a region of excellence in the field of Information Technology. The cyber city has been set-up with this vision in mind. The benefits are already being seen.

Currently it is the BPO sector which is bringing the most benefits to the island. This includes both call-centers and the outsourcing of programming jobs. Although, the ICT sector is growing year by year, it is an undeniable fact that till now our country has not produced any applications software that can be exported.

Even with respect to websites, we do not have any Mauritian website which features among the 10,000 most visited websites of the world. The first website in Mauritius is ranked only at the 45,000 position on the international level. The majority of websites have ranked well beyond 1 million (Alexa). Why is this so? Is it because they websites are badly designed? Is it because the websites lack quality content? Is it because the websites are not being advertised? Is it because the websites the contents are not being updated regularly? Is it because the websites display only static information and there is a severe lack of interactivity with them? While there are no simple answers to these questions, it is true to say that there many quality Mauritian websites which are beautifully design and are updated on a regular basis.
Successful websites can bring significant revenue to Mauritius, for example, through adsense programs, through direct advertising of international companies, selling of content, selling of goods and services online, etc. While there are some small Mauritian websites which are making some money out of adsense and other advertising programs, it is likely that their revenue do not go beyond Rs1000 per month given their little traffic.

In India, the most successful, Amit Agarwal, is reported to be receiving more than Rs. 1,000,000 per month through adsense only. Many of the successful Indian bloggers have gone forward with creating their own SEO company.

The objective of this paper is to show the importance of optimising a website. This will be of great benefits to many people and businesses in Mauritius. Everybody wants to have his or her space on the Internet for various purposes including sharing information, looking for friends and selling products.

An important aspect is the marketing side as nowadays most businesses have their own website and there is tough competition among them to get a constant influx of visitors. Everyday new blogs and sites are created and submitted on the Web. As a result, the chances of a blog or site appearing in the search results become smaller. A tool to optimise websites in a bid to have a good placement on results list of search engines is no longer a choice.

This paper proceeds as follows. In the next Section, we explain what SEO is and how Google ranks web pages. In Section 3, we give a brief overview of successful SEO companies and tools at an international level while Section limits the discussion to SEO companies in Mauritius. Section 5 provides a description of some of the factors that may affect the rank of a website on the search results list. Section 6 discusses how SEO can benefit each of the five pillars of the Mauritian economy. And finally, we conclude with a brief conclusion on SEO.

2. What is Search Engine Optimisation?

According to Harold Davis, SEO is the art, craft, and science of driving web traffic to web sites [1]. Web traffic is based on the number of visitors and the number of pages they visit. In fact, web traffic is the most important factor for websites to prosper. In order to know best which SEO techniques and tools are needed, the SEO administrator have to understand well how the major search engines works and all the factors that determine the placement of websites and web pages.

Indeed, there are many factors that determine the placement of websites on the results list. The science to deal and manipulate these factors gave birth to SEO. SEO provides tools and concepts that allow webmasters to make their sites more findable and ameliorate their ranking in search results. However, SEO has both negative and positive effects on the relevance of search results. Recently, many organizations have managed to ‘dope’ the search results and force the search engines to place their websites on top of the results list even if the result is not very relevant to what the user intended.

In order to make a search on web page, a user first has to insert one or more keywords and then proceed with the search which returns a list of websites corresponding to the keyword(s) input. The search results are ranked accordingly to their relevance. So, there is huge competition between businesses, corporations and even individuals to have their websites ranked first in the most important search engines. Therefore, in order to survive, businesses web sites must be well optimised in major search engines.
A. Market Share of Search Engines

Fig 1: Market Share of Search Engines

The graph shows the dominance of Google regarding market share. Yahoo is at 2nd place with about one-fifth of the market share while Microsoft’s Bing is at 6%. The other search engines make up only about 6% of the total market share.

B. Factors affecting Google search results

1) How Google Works?

Google implements four basic mechanisms: discovery consists of crawling the web by using a software known as a bot. It follows all the links on each web page. All the links are stored. Ranking is the third step. Google ranks the billions of pages stored by how important they are. A number of criteria are used to determine relevance. Results are then returned based on the query from users [1].

2) How Google index web pages: PageRank

Google uses the PageRank algorithm to order the results returned by search queries [1]. In fact, results of search queries are returned in order of their PageRank. PageRank is a value from 0 to 10 which Google assigns to each website on the Internet. Websites like Facebook and Wikipedia have very high PageRank values, possibly a value of 8 or 9. There are very few websites which have achieved a PageRank value of 10. Some of them are Adobe.com, Microsoft.com, Apple.com and msn.com. However, PageRank values are updated every three months.

The web uses hyperlinks to operate correctly. Many sites are provides links to help the bot to detect websites or information and help users find more information on specific topics or other sites. These references from other websites are called inbound links and a site with more inbound links to it has a higher PageRank. A link from a site with high PageRank allows a site to get a high PageRank. It is also possible that pages on the same website have different PageRank.

3) How websites get listed in Google?

It is a must for a website to be found by the crawler and get indexed because it is only then that the site will be listed on the results list of search engines. Search engine will never be able to rank a website if the website is not submitted to any search engine or if the website has no inbound links. References from websites already indexed allow new websites to be indexed more rapid. Webmasters should submit their websites to different search engines and directories as no unique search engine can index the entire web [1].

4) Importance of Links

The number of inbound links to a website is a measure of its popularity on the web [1]. Now, to obtain inbound links that is for website to be referred by other website they must contains good related content. For example, site Y will put a link to site Z only if there are interesting, useful and informative related documents to site Y on site Z.

5) Site and Page Design

In a bid for a site to rank first in Google, it should be well designed. The following factors describe a good web design.
Text based: it is better to use more text and less images because search engines bot cannot read the contents of images as easily as they can read text.

Navigation: surfers should find it easy to navigate through the different pages in a website.

Right Keywords: keywords are the most important factor as far as querying websites is concerned. Normally, users do not remember domain names. Most frequently, users tend to type keywords related to his search to get information. Therefore, online content writers must determine the most suitable keywords that users will tend to input and repeat these keywords on their pages. The more keywords on a page, the more visitors it can get and the better its rank will be.

Number of words: a website cannot contain too little words as Google and the other search engines will tend to discount the page as lightweight [1]. Also, pages with more than 250 words tend to diminish traffic. This is because if there are too many words, the web designer will not be able to fit everything in a single screen, then the page become longer and users will have to scroll down to view the page.

3. SEO Tools, Companies and Websites

There are many free and commercial SEO tools that are available. In this section, we describe some of these tools, companies and websites offering SEO.

Rankquest is a free dedicated Search Engine Optimization resource which includes SEO Tips, SEO Blog, SEO forums, SEO DIFF, Watch Rank and Search Engine Optimization Tools [2]. WatchSEO is an offering from RankQuest which helps the Webmasters in simplifying their SEO activities.

WatchSEO provides a single console from where the user gets to know the overview of the various SEO parameters in the form of small gadgets. Analyzing the effective keyword(s) of the webpage, various webpage validations (Link Validation, HTML Validation, Image Validation), showing Alexa Rank details are some of the gadgets to highlight [2].

SEO Software by Web CEO includes 12 SEO Tools in One Powerful SEO Suite [3]. The website enables users to download an SEO software which includes important SEO tools. The software consists of the main processes to optimize a web site or blog. It includes finding a niche for the blogs, promoting sites, analyzing blogs and how to maintain them.

The SEO Elite commercial tool is more powerful than simple SEO free tools but the SEO Elite Software cost $167 [4]. SEO Elite has a good reputation in SEO as it offers a powerful SEO. Also, the content of websites should be shared with the company doing SEO and therefore privacy of information is disturbed.

SEO Administrator is a set of SEO tools for website promotion and optimization. Google, Yahoo and MSN tools and many other major search engines are supported [5]. SEO Administrator is a very interesting SEO website which provides many SEO tools and information in the form of a tutorial to help webmasters and other people to understand how SEO works. However, the software cost a lot of money.

4. SEO Companies in MAURITIUS

SEO companies in Mauritius do not offer any automatic tools. Instead, most of them provides for services for manually optimising a website. SEO Mauritius is such an example.

Fig 2: Results list from Google for ‘SEO Mauritius’
As shown in Fig 2, SEO Mauritius offers limited services because they do all the work and in return people have to pay them. However, it can benefit companies who have no expertise in web design and development [10].

StarWeb International another SEO company. It is well-equipped with qualified and experienced people to provide IT services or IT enabled services.

SWI is a foremost search engine optimization (SEO) and web marketing company. It offers internet marketing and SEO services worldwide. SWI increase the website back link for better PageRan. It also offers tagging and book-marking to connect to the high traffic within social websites [6].

SEO Company Pakistan Luqman-technologies.com has been asked to help Mauritius Textile Companies with their website design, web development and SEO Services [7]. The Textile Companies in Mauritius is purchasing SEO services from other countries instead of Mauritius itself. This somehow shows that SEO companies are not well established in Mauritius.

JoeMeier ICT Business Consulting is specialized in all Google Services and implement tailor-made solutions for companies. Search Engine Optimization (SEO) is also one of the services they offer to place your website higher in the results list [8].

5. SEO Techniques

In this section, we look at some of the most important factors that influence the rank of a website for specific keyword(s) in the search results list. The list is not exhaustive. A complete list of factors can be found at [9 ].

A. Placement of keywords

The important keywords should go in a page’s HTML <title>, <h1> headers and should also be included in the alt attribute of image <img> tags [1].

In addition, by placing keyword phrases ending with the name of company can allow the website to be detected by the bot quickly. Another good practice is putting keywords in links. For example, instead of using “Tools” as text on a hyperlink, it is better to use “SEO Tools” [11].

B. Meta tags information

Meta information helps search engine to find the website. For example, if someone is creating a website on Search Engine Optimization, they should include these words and other similar words and/or phrases in the meta tags.

C. Content of Web Pages

Content of web pages is crucial to determine the amount of traffic for a website. Nowadays, people are very busy and have little free time. They want to have what they want quickly. Therefore, the content, including information, news, articles or videos should be up to date. Freshness of content information is too important as users will not stay in a site with past events only.

Secondly, the most important part must fit on the first page in a single screen to avoid scrolling. Thirdly, the content should be marketable for it to have a better impact on the traffic. Therefore, the information should be easily readable and accessible within a few clicks.

Finally, the webmasters must make sure that the advertisements are not unrelated and must avoid using strange colour combinations [11].

D. Domain name

The domain name is the name of your website. For example, facebook.com and google.com are domain names. When a user searches for content on the World Wide Web, he will frequently type keyword(s) or short phrases related to what he actually
needs. Very rarely do users remember
domain names.

Domain names must be thoroughly
decided when naming a website as they need
to incorporate most of important keywords in
them. However, it is also true that domain
names should not be too long, otherwise it
becomes difficult to refer to it in written or
oral communications.

E. Submission to Search Engine
Directories
The Open Directory Project,
http://dmoz.org, is the most important
taxonomic directory on the Web [1]. The
DMOZ is not web-automated and sites can
be promoted when webmasters submit their
sites to it. Submitting websites to the ODP is
the best way to get indexed by search
engines, including Google. Therefore, ODP
cannot be neglected as far as SEO is
concerned.

F. Negative Impacts of SEO
This section describes how webmasters
are using SEO to make their website gets a
better rank even when they do not really
deserve that rank. This is a very big problem
because the ranking of websites in the list of
results displayed by search engines often
becomes irrelevant. Therefore, users have to
spend more time on the web to search for the
required information.

Due to the dishonest application of SEO
techniques, it is not necessary that the most
relevant websites are listed on the first page.
This is why one reason why Google changes
its PageRank algorithm on a frequent basis.

Good websites with fresh contents are
sometimes bypassed by other not so websites
because of over-aggressive SEO techniques.
It is very important to know these bad
practices as search engines can block these
websites. One of the basics of SEO is to
make sure that a search engine is not
offended.

By playing with font color, many people
fool users of the Web by hiding text and
links for search engines to display them in a
way they are invisible. For example, they
input many keywords and links on a page
with the same colors as the background
colors. This makes them not visible to users
and when the users make their search, they
are sent in these irrelevant websites.

Deceptive links are links that redirects
the users to another page [1]. Sometimes the
page contains some brand of high quality
products but is in fact a web spammer page.

Keyword loading is the addition of
irrelevant content to the page only to input
more keywords. The proper placement of
keyword is not respected nor is the limit in
the number of keywords respected.

6. How Can SEO Benefit MAURITIUS?

In this section, we have identified the
different pillars of the Mauritian economy
and tried to suggest how SEO techniques can
boost the sector.

A. SEO in Education
To attain success in terms of studies,
information about specific subjects is very
important and it must be readily available.
So with thousand of websites sometimes on
the same topic, it is difficult to obtain
relevant and precise information.

The syllabus followed by students in
each level of studies is very important.
Nowadays many notes are posted online. The
knowledge SEO techniques can allow
teachers to know where to submit the links
of their blogs or websites so that their
information can be indexed rapidly by search
engines and therefore readily accessible to
students. The contents will be fresh and
therefore they can have access to up-to-date
syllabuses and important notes.

Nowadays many students have their
own websites or blogs where they display
their information and their skills. They also
use it to communicate between friends and share information. Companies may be interested in employing them if ever they meet the requirements of the companies. Therefore it is very important for their blogs or websites to get indexed and be found easily on results list of search engines.

B. SEO in Business
To cope with the global economic crisis, Mauritius, which is a developing country, has to work very hard to compete with worldwide businesses, and all its resources and capabilities must be shown to others countries so that they invest more, become partners or trade with Mauritius. In order for big companies worldwide to know how competent Mauritius is in many fields, information must reach them and the Internet becomes a very precious tool.

C. SEO in Textile
Textile companies in Mauritius asked help from SEO Company Pakistan Luqman. With a good knowledge in SEO, IT managers or webmasters in the companies will understand how major search engines work and which SEO techniques can be used to have a better rank in results list. The textile companies in Mauritius may have to hire only one SEO expert or a website administrator to optimize their websites.

Knowledge in SEO will also allow Mauritian textile companies to display accurate information targeting the desired traffic and also provides for a community service so that they can have feedback from the general public on their products. SEO tools can be used to search for other textile companies abroad which would like to do partnership with Mauritian companies.

D. SEO in Agriculture
Agriculture is very important in Mauritius and many crops are used to manufacture products which are exported to other countries. Now these products must be of good quality and in order to check for that, the inspector will check websites of huge agricultural companies for information.

An SEO tool will enable agricultural websites to be indexed easily by search engines. With the concept of inbound links, other companies such as pharmaceutical companies may be interested in referencing the websites of agricultural companies.

E. SEO in Tourism
The Tourism sector is the second pillar of the Mauritian economy just after sugar. However, it is the vision of the government to increase the number of tourists visiting the island from 1 million to 2 million by the year 2015. All hotels in Mauritius have their websites. However, it is doubtful whether any of them are optimized to appear within the first page.

If people throughout the world are looking for nice hotels to stay for their holidays, they will type keywords like cheap hotels, holidays, car rental, Paradise Island, etc but not Mauritius because they do not know about us.

Now if the hotels in Mauritius have made good use of SEO techniques and followed many of the guidelines, they will be surely be optimised for the phrase “cheap hotels” and can be ranked on the first page of a results list. As a result, more tourists can be interested to check the websites and spend their holidays in Mauritius. Mauritius can benefit a lot from an increased inflow of tourists.

F. SEO in ICT
The number of Internet users in Mauritius in increasing rapidly. The gives rise to a heavy general traffic. This is because Mauritius is fast becoming a Cyber Island. The numbers of Information Technology companies is also increasing very rapidly. All these companies have their websites and many blogs.
In order to compete with other companies worldwide, all the websites and blogs must be optimized. And if they are not well optimized, the companies can easily lose business. An SEO tool can help IT companies to use the different SEO techniques to satisfy their users.

7. Conclusions

Regardless of what business you are in, a website can be a primary point of contact between you and your customers. Mauritian companies who have websites have no longer the choice. They should act fast. Those who do not have a website need to have one. With the continued decrease in the cost of Internet, the number of surfers has increased considerably. By applying appropriate SEO techniques, these companies or individuals will benefit both on the national and international levels. The increase flow of visitors will undeniably increase their business prospects and make them more competitive than other similar businesses.

Applying SEO techniques is not necessary the domain of an expert in IT. Most of these techniques can easily be learned and applied in a few days by someone who has some basic knowledge in web development. Instead of spending large amounts of money on advertising their websites through email campaign or on other costly websites, webmasters can have a constant influx of visitors at no cost. The majority of Internet users come to a website though organic search i.e. through the usage of keyword(s) or short phrases in search engines.

In this paper, our discussion was mainly focused on Google although there exists many other search engines. However, once the principles of SEO are understood though Google, almost the same concepts applies to the other ones search engines like Yahoo and Bing. We believe it is high time that Mauritian companies invest massively in SEO and SEO education. The government should also conduct workshops, seminars and/or conferences on SEO. This will benefit everyone.

References