



An Analytical study on Digital Marketing

Dev Vikas Juneja

Diploma Student, Computer Engineering

Pimpri Chinchwad College of Engineering, Pune

Yash Dilip Khadse

Diploma Student, Computer Engineering

Pimpri Chinchwad College of Engineering, Pune

Abstract—The Internet provides an easy and uniform way for businesses to make their brands and products visible to their customers. Every website has a specific target audience and requires a different type and level of content. We describe a process of capturing the Return on Investment (ROI) from Search Engine Marketing (SEM) focusing on two main techniques: Search Engine Optimization (SEO) and Pay Per Click campaign (PPC) which are used to improve the visibility of e-business to generate more traffic and sales. Our idea aids in automating the discovery and identification of marketing tags firing on a website which is significantly challenging if done manually. The paper studies how digital marketing is alike stock market by taking different perspectives into consideration that determine why Rebirth of India is inevitable. The paper also describes about big data that enables companies to better target the core needs of customers by developing rich and informative content. We describe the results of optimization, its impact on the companies' future strategy in this paper.

Keywords: Digital Marketing, SEO, SEM, PPC, Big Data, Stock Market, Rebirth of India.

I. Introduction

Digital marketing, a term which refers to the concept of using digital technologies for promotion of products or services has been growing at a rapid pace over the last few years.[5] E-

BUSINESS IS GROWING EXPONENTIALLY

WITH MORE THAN THREE million new websites appearing in the Internet every month. Due to the vast number of web sites it is very difficult for a company to achieve increased visibility and competitive advantage over their rivals, which is a key sales success factor. [10]

To ensure visibility, companies are investing their resources in search engine marketing (SEM) whose main aim is to expose the website to potential visitors and attract them so they visit the website and either use a service or buy a product.[7] SEM consists of many techniques that can be used to increase brand visibility. However Search Engine Optimization (SEO) and Pay Per Click (PPC) campaigns [2] prove to be the most effective techniques for generating high ROI [3] The challenge faced by many e-businesses is to decide whether their online marketing strategy should be based on SEO, PPC or on both [4].

Search engine optimization is done mostly for the Google search engine, since it has an overall searching volume share of 81.11% [6]. Hence optimizing for this search engine is the top priority when considering the e-marketing strategy. SEO consists of optimizing a web site to improve its performance within organic listings on a search engine. An organic list contains those results which appear on SERP (Search Engine Results Page) based on their keyword relevance rather than being paid adverts.

The pay per click (PPC) system invented by Google. With this approach a company can decide for which keywords or phrases their advertisement will appear and is charged for every click search engine users make on the advertised links. [2] In this paper we will describe our efforts to systematize the process of capturing the ROI in two companies having significantly distinct sales approaches:

- A company selling tiles directly online.
- A company selling software and selling through sale representatives, but not selling directly online.

For online marketers, the business of marketing, advertising is often much more unpredictable than it seems. By paying attention to the rules of the stock market, though, an online marketer may be able to pick up some essential tips for a successful online marketing strategy. [3] Here are three ways that online marketing resembles the stock market:

- Patterns Matter
- Research Counts
- Never end investment early

II. Return on Investment and associated strategies

ROI is the key metric when comparing PPC and SEO, as the cost of investment can vary between the two and is calculated as a difference of “gain from investment” and a “cost of investment”, divided by “cost of investment”. Businesses set their e-marketing strategy to generate more traffic to their website to promote the company’s products. This can be realized by implementing SEO/PPC or even both. In this section, we describe several factors that can help businesses in choosing the most effective e-marketing technique.

The cost of a PPC campaign can be considerably higher than an SEO due to the constant acquisition and bidding on keywords to maintain a lead over competing adverts.

A PPC campaign can be set up promptly and it can provide a ROI within days .Whereas, SEO may take

several weeks or a month before it can produce any beneficial results because it depends on when the website is crawled by the search engine. Although, SEO does not provide immediate ROI, it can generate more traffic and eventually more profit once a high ranking has been achieved. This is because search engine users tend to click on organic links rather than paid links. This is backed up by research by iProspect that showed 72.3% of Google users click on links generated through searching, compared to 27.3% who clicked on paid listings. [9]

On the SERP main attention is given to the top left of the page in a triangular shape to the bottom “above the line” of visible results as shown in Figure 1.

This proves the most important areas of user attention on SERP. As can be seen in Figure 1, attention of all experimental users was focused on the three top listings on the SERP and this was reduced to 85% of users at the bottom of the above the (red) line listings. Attention appears to decrease sharply downwards on the SERP for organic listings. Attention then dropped dramatically below the line from 50% of users to just 20% of users. On the other hand, attention on the sponsored PPC adverts is considerably less. Attention starts at 50% of the experimental users and it gradually drops to 10% at the bottom [9]. This clearly illustrates the imperative of SEO for the ongoing sales and brand recognition.



Figure 1 – Google Heat Map for Displaying Eye Activity

We have selected two companies in order to carry out e-marketing research and to compare their results in terms of ROI. A brief comparison is in the following table:

	Company A	Company B
Product or service	Tiles sales	IT consultancy with special emphasis in SharePoint customizations
Form of sale	Direct sale through the website	Sale done through the network of sales managers.
Usage of the website	To promote the company, products and for direct sale.	To promote the service the company provides. The website was not used for direct sales. Tools for enabling contact with sales and support were enabled on the website.
Features of the product provided	Large quantities of non expensive products provided to the customer.	Small quantities of custom - development projects delivered according to the specification of the customer.
SEM budget	PPC - £3200 SEO - £2200	PPC - £1600 SEO - £2200

Table 1 – Comparison between Company A and Company B

Search Engine Optimization

SEO is the practice of optimizing websites and web pages for discovery in search engines and, as a result, more visible placement on search engine results pages. This is accomplished through a variety of means, from

what is known as “on-page” SEO to “off-page” techniques. There are two main types of SEO, “off page” SEO and “on page” SEO. [1]

On page SEO is concerned with the text and content of the site ensuring pages are “search engine friendly”, which means that the content of the page is perceived by the search engine crawler as having a high value for designated keywords. “on page” techniques include generating unique content, using title, description and header tags, ensuring no duplication, URL friendly complete links, images employing the “alt” tag, using relevant anchor text and general well written site code to ensure usability, accessibility and overall good site performance.

Unlike on-page SEO techniques, off-page SEO refers to strategies that affect the site as a whole. Common off-page SEO techniques include link building and exchange, social bookmarking, content marketing, submissions to directories and search engine indexes, and the creation of online communities on social media. These techniques are not aimed at manipulating the results of the search engine, but rather improving the quality of the content and as a consequence increasing the rank of the page.

III. Pay Per Click

PPC a model of internet marketing created by Google in which advertisers pay a fee each time one of their ads is clicked. Essentially, it's a way of buying visits to your site, rather than attempting to “earn” those visits organically. [2]

Search engine advertising is one of the most popular forms of PPC. It allows advertisers to bid for ad placement in a search engine's sponsored links when someone searches on a keyword that is related to their business offering. For example, if we bid on the keyword “PPC software,” our ad might show up in the very top spot on the Google results page. The principle behind the bidding process for keywords is simple, if you are willing to pay for the position more than your competitors, your link will be displayed above your competitors.

IV. Big Data in Digital Marketing

Big data helps an enterprise to understand their customers better. It guides a service provider to utilize the data in more innovative and stable way when designing a product for a potential customer. [4] Marketers can develop different buyer personas using data like customer behavior, purchasing patterns, favorites and background. For example, they may find that women are more likely to respond to email campaigns, use coupons and engage in bargains and deals, and shape their digital marketing campaign from there.

Big Data can help in showing appropriate web content, Making Better Pricing Decisions, personalized targeting, enhance equipped to target and in many more ways.

Netflix does an exceptional job providing visitors with individualized recommendations based on the movies and shows they have watched.

According to data by International Data Corporation (IDC) report, the total revenue generated from big data and business analytics will witness a significant boost from \$122 billion in 2015 to \$187 billion in 2020.

Big data has transformed the way businesses use to spend and generate the revenues. Thus, Big data has raised the opportunities for organizations to use data to track benefits, customers' and company's activities across the world.

V. Three Ways Online Marketing Is Like The Stock Market

Digital Market resembles stock market in the following three ways:

1. Pattern Matters: Stockbrokers will all tell you one for sure thing about the stock market: patterns matter. For online marketers, the saying is exactly the same – trends and patterns in online marketing are important to follow, and can determine whether or not your marketing approach is successful or not.
2. Research Counts: If you don't do plenty of thorough research about the stocks that you're planning in investing in, chances are that your investment won't be nearly as successful as it would be otherwise.

Rather than approaching your online marketing strategy blindly, taking time to learn as much about the industry as possible, and having trained staff on hand who can tackle the strategy head-on, is essential.

3. Never end your investments early:

Marketing and the stock market certainly have their differences, but they have their similarities too. With both, paying attention to patterns, conducting thorough research, and staying with your investment (even during the toughest of times!) are all essential to profit and success.

VI. Conclusion

In this paper we have discussed the two main techniques of e-marketing: search engine optimization and pay per click. We have discussed the key metric ROI while comparing PPC and SEO. India is adding 10 million active users a month. Here is what it means for the Rebirth of India: the bulk of the Indian demographic has come online in the past three-four years driven by smartphone and 4G adoption. However, the Indian internet growth story will take another four to five years to reap digital demographic dividend. In its Rebirth phase, India must ensure that the rise of internet usage is optimally leveraged, to make social and economic services available to the remotest corners of the country resulting in boost in digital marketing.[8] We hope that this research will become a good starting point for further investigation and will help to support SEM with empirical evidence of efficiency and trustworthy measures of its ROI.

VII. References

- [1] Moz, "What is SEO?" Available: <https://moz.com/learn/seo/what-is-seo> [Accessed 13 September 2019]
- [2] Larry Kim, "What is PPC?" Available: <https://www.wordstream.com/ppc> [Accessed 14 September 2019]
- [3] Steve Olenski, "three ways online marketing is like the stock market", Available: <https://urlzs.com/Hy28K> [Accessed 14 September 2019]

[4] [X]cube Labs, “How Is Big Data Influencing Digital Marketing Strategy?”, Available:

<https://urlzs.com/k1Bsj>

[Accessed 15 September 2019]

[5] SAS, “Digital Marketing. What it is and why it matters”, Available:

<https://urlzs.com/G6qqY> [Accessed 15 September 2019]

[6] 3plains, “How important is Google First Page”, Available: <https://urlzs.com/XBxxu>

[Accessed 17 September 2019]

[7] WordStream, “Search Engine Marketing (SEM): What It Is & How to Do It Right”,

Available: <https://wordstream.com/search-engine-marketing>

[Accessed 17 September 2019]

[8] Tanushree Banerjee, 50 Reasons why the Rebirth of India is inevitable: Equity Master Agora Research Private Limited,2019.

[9] Adam Grzywaczewski, Rahat Iqbal, Nazaraf Shah, Anne James , “E-Marketing Strategy for Business”, 2010.

[10] Tsung-Chih Hsiao, Carol Han, Mixue Qi and Xioaguang Yu, “The Development and Research Of Digital Marketing in the Contemporary Society”,2013.

