A Strategic Analysis of Search Engine Advertising in Web based-commerce

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Abstract

Endeavor of this paper is to explore the role play of Search Engine in Online Business Industry. This paper discusses the Search Engine advertising programs and provides an insight about the revenue generated online via Search Engine. It explores the growth of Online Business Industry in India and emphasis on the role of Search Engine as the major advertising vehicle. A case study on revolution of Indian Advertising Industry has been conducted and its impact on online revenue evaluated. Search Engine advertising strategies have been discussed in detail and the impact of Search Engine on Indian Advertising Industry has been analyzed. It also provides an analytical and competitive study of online advertising strategies with traditional advertising tools to evaluate their efficiencies against important advertising parameters. The paper concludes with a brief discussion on the malpractices that have adversarial impact on the efficiency of the Search Engine advertising model and highlight key hurdle Search Engine Industry is facing in Indian Business Scenario.

Keywords: **Online Advertising Industry; Pay per Click; Adsense Revenue; Search Engine; SEO;**

INTRODUCTION

In this information age the explosion of World Wide Web as an important information source has molded the behavior of many information seekers and consumers. As more and more users are relying on Internet for information Search Engine has emerged as a handy tool for information retrieval. Fueling this trend is the fact that Search Engines have become popular both as information-seeking vehicles and as an online advertising media. According to survey conducted by Bo Xing and Zhangxi Lin (2006) an American uses Search Engine as shopping tool. This has created a race to expand business online. In the last decade, there has been a tremendous surge of interest in Search Engines among net users. According to a study done by the Internet and Mobile Association of India, IAMAI (2006), there are about 65 million people who use Search Engines in India and the current size of market for Search Engine advertising is $50 million. This market is expected to grow over the next five years.

Search Engine has not only emerged as backbone of the Online Industry but also has given birth to new industry of Search Engine Optimization, popularly known as SEO. SEO is a kind of Internet marketing that includes set of marketing methods to increase visibility of a company through its website globally using Search Engine. Popularity of Search Engine has made it inevitable for companies to rank high in search results and this has led to the rise of Search Engine Optimization Industry. In India there are many SEO firms dedicatedly engaged in getting client's website rank high among Search Engine results. There are many methods for online advertisements. Rich media advertising companies use Banner Advertisements, Wallpaper Advertisements, Pop-ups, Video Advertisements, streaming audio, streaming video and mobile advertisements.

Affiliate marketing and Email Advertising are other forms of online advertisement. Search Engines have created an era of context based advertising. Google Adsense, Yahoo Publisher Network and MSN Ad Center provide contextual advertising which have attracted many online ad-publishers. With the evolution of Search Engine Marketing (SEM) Search Engines have extended their role as major Online Advertising Vehicle.

QUANTITATIVE ANALYSIS OF ONLINE ADVERTISING STRATEGIES VS TRADITIONAL ADVERTISING CAMPAIGN

The growth and popularity of online media is in direct contrast to the declining value of rational media, as reflected in the decreasing use of TV, newspapers, and other sources. According to online media survey conducted by PipperJaffray (2006), 40% of the respondents said they watch less TV than they did two years ago, while less than 18% said they watched more. It has been analyzed that search and specifically Google dominate the Internet. This survey shows that consumers are spending far less time and attention on TV and newspapers; they are busy searching, or more accurately, Googling, on Web. Table [1] provides a comparative analysis of Online Advertising and Traditional methods.

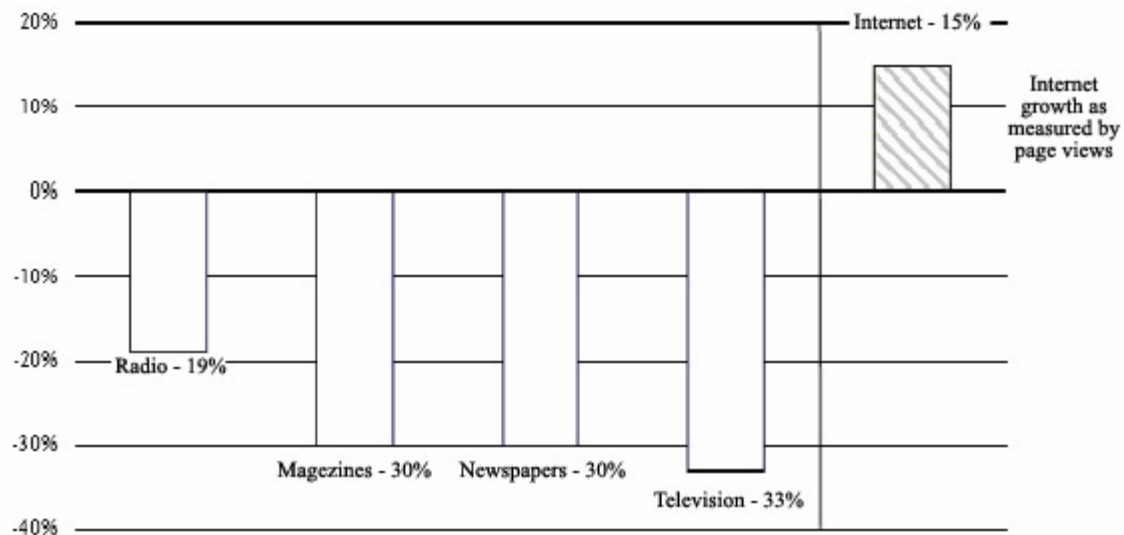**Table 1: Traditional method Vs Online Advertising**

Factors	Traditional Method	Online Advertising Method
Criteria of measuring cost of Advertisement	The cost of an advertisement based on how often and when advertisement is shown.	Based on number of clicks made by the user on the advertisement.
Mechanisms for translating "cost per impression" into sales	There is no reliable method for translating "cost per impression" into sales. Advertiser cannot determine revenue generated through individual advertisements.	Advertiser can study the statistics showing number of people who visited the link, number of people who clicked the link and through the link how many visitors came over and checked the online store. It is also possible to measure the number of users who executed a transaction or took an action on the Web site.
Advertisement Relevancy to the user/viewer	In traditional methods advertisement selection is irrespective of the intent of the user.	The uniqueness of Paid Search Strategies lies in the fact that it is via keyword selection of the users advertisers determine the user's underlying intent and attach some monetary value to it. E.g. Suppose a user searches for "cheap tickets" then the advertisers selling cheap tickets will bid for this phrase or phrases related to this to get their websites ranked for this key

		phrase.
Unique Feature	Popular among consumers	Content provider, Search Engine, and user have mutually supporting goals. Each of them has their on desired purpose which is taken care mutually.

According to study conducted by Anurag Gupta (2006) growth of Online Advertising Industry in India in the year 2005 has been found to be close to 100%. It has been analyzed that more and more advertisers are using online medium. Most of the advertising is being sold directly by the publishers, 90% of online advertising revenues is generated from top 8-10 portals / portal group sites. Almost 70% of online Advertising is happening for performance related websites. Largest categories are Internet players & financial services. These two together accounts for close to 60% spend. Almost 30-40% of advertising is happening through direct deals between Advertisers and Publishers. Search Engine share a market share of 24% and are showing a growing trend. The Indian Online Advertising trend in year 2006 can be observed in the fig [1]. It shows that among the top advertising portals search has generated advertising revenue of 15 millions in 2006.

CONSUMERS SPENDING LESS TIME WITH TRADITIONAL MEDIA
% Spending Less Time With Medium Due To Time Spent Online

Fig 1: Online Advertising Vs Traditional Advertising media

EVOLUTION OF SEARCH ENGINE MARKETING

Internet marketing, Search Engine marketing, or SEM, can be described as marketing methods to increase the visibility of a website in Search Engine result pages (SERPs). SEM is most important for the businesses who sell goods and services online or who use their websites to generate sales leads. Other goals for SEM include competent task like (i) Building Brand, (ii) Enhancing Reputation with investors,(iii) Generating Media coverage, and (iv) Driving Traffic to physical business locations. Organizations such as non-profits, universities,governments, and political parties also use SEM to promote their ideas.

Search Engine Marketing can be broadly categorized into two different categories:

1. Search Engine Optimization attempts to improve rankings for relevant keywords in search results by improving a website's structure,content and relevant backlink count.

2. Paid Placement Strategies popularly known as Pay per click advertising uses sponsored Search Engine listings to drive traffic to a web site. The advertiser bids for search terms, and the Search Engine ranks advertisements based on a competitive auction.

PAID PLACEMENT STRATEGIES

Bill Gross (1998) of Idealab is credited for creating the paid-search paradigm in 1998 with the launch of GoTo.com which later became Overture and now is popular as "Yahoo! Search Marketing". Google on similar lines developed its own paid-search technology, AdWord. According to Terry McCarthy (2005) these two entities now account for the majority of paid search traffic today. The economic impact of paid search is immense. In 2004 Paid Search Industry stood as an $8 billion industry and has emerged as a vital pillar for the success of the major Search Engines—for example, 99 percent of Google's revenue came from advertising, while Yahoo! received 84 percent of its income from paid advertisements. In 2005, paid search generated $10 billion globally and this figure is expected to soar to $55 billion by 2010. According to Bernard J. Jansen (2005) Paid search strategy popular as Pay per Click Strategy is easy to use and implement and its economic impact is immense. Its process is dynamic and it is unpredictable even for the Search Engine or the advertiser himself to judge where the targeted advertisements will be displayed and how much traffic the advertiser site will fetch from such display. Paid search can now be visualized as a primary business model for Web Search Engines. However, as on today not much published studies are currently available on the effectiveness of paid search and anecdotal evidence suggests that sponsored results are just as relevant as non-sponsored results for search queries. Research Survey, PipperJaffray (2006), shows that search has emerged as the most successful category for earning online revenue via Advertising. The success of Search community can be analyzed from fig [2] which shows that search has emerged as the most reachable and monetizing category among other popular categories such as News, Sports, Entertainment etc…

MONETIZATION POTENTIAL INTERNET CATEGORIES
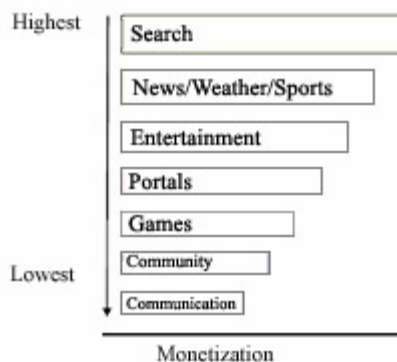
Fig 2: Monetizability of the popular categories of Web.

Fig [2] depicts that Search Engine has emerged as an advertising platform for business and services of companies. Understanding Search Engine Marketing strategies is much important in order to achieve success in Online Business. The simplicity of the model lies in the fact that searchers are not disturbed by the visibility of advertisements and their search results are not hampered by the advertising process.

STEP-WISE LAY OUT OF SEARCH ENGINE ADVERTISING

Step 1: When a Web user enters a search query in Search Engine search box, Search Engine returns with a result page containing search results and the sponsored links, i.e., paid advertisements which are most relevant to the user query.

Step2: SERP contains a clear distinction between Search Engine advertisement and the actual search results. Such advertisements depend upon the keyword or key phrase entered by the searcher and different searches yield different sponsored links.

Step 3: Advertisers target their advertisements based on query keywords and/or phrases. For instance, if a travel agent buys the word "Singapore," then each time a user performs a search on this word, a link to the travel agent will appear on the search results page.

Step 4: When a user clicks on the sponsored link, he is sent to the advertiser's Web page. The user click constitutes a referral to the advertiser from the Search Engine.

Step 5: Whenever an advertiser gets a visitor from Search Engine sponsored links, the advertiser needs to pay Search Engine for referring the user, and hence the pricing strategy gets its name "pay-per-click" pricing.

Here is an example:

 A searcher searches for flights to Singapore. He enters phrase "flights to Singapore" in the Search tool bar. The screen shot of search results is displayed in Search Engine
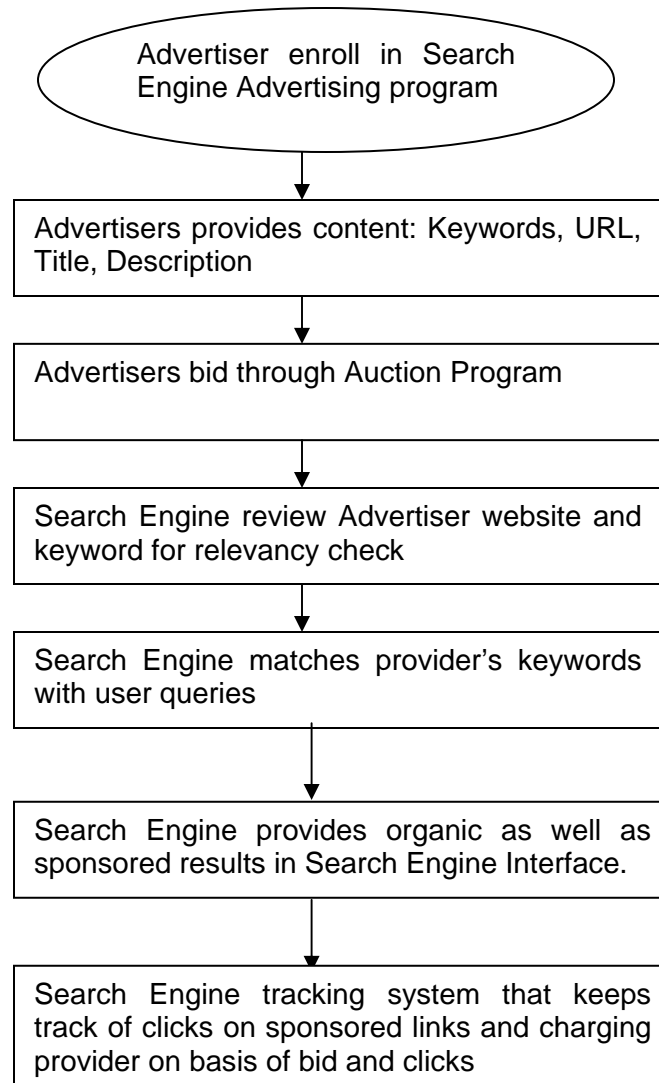
interface [fig 3]. The results marked "Sponsored links" are paid results and the other ones are organic search results.

Fig 3: Search Engine Interface

WORKING OF PAY PER CLICK STRATEGY

Paid Search Strategies are easy to use by a person conducting online business. However the working of such strategies is difficult to understand. According to Hemant K. Bhargava, Juan Feng (2002) its complexity is further enhanced by the fact that online advertising is a dynamic process as its unpredictable even for the Search Engine or the advertiser himself to judge where the targeted advertisements will be displayed and how much traffic the advertiser site will fetch from such display. The working of the Paid Placement Strategy has been outlined in Fig [4].

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        │  Advertiser  enroll  in  Search │
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     │ Advertisers provides content: Keywords, URL, │
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     │ Search Engine provides organic as well as │
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     │ Search Engine tracking system that keeps │
     │ track of clicks on sponsored links and charging │
     │ provider on basis of bid and clicks     │
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Fig 4 Pay-Per Click Strategy

ADVERTISING ONLINE VIA SEO FIRMS

Search Engine Optimization (SEO) as discussed is the practice of optimizing web pages in a way that improves their ranking in the web search results, which are also known as natural or organic results. In this type of advertisement, advertisers pay SEO firms which specialize in this practice. Recently, SEO is gaining momentum primarily for two reasons. First, Cost per Click (CPC) has increased tremendously over years. Advertiser needs to pay more for each click made by a user on his advertisement. Second, it has been realized that organic results are more appealing to searchers because these results are considered more objective and unbiased than sponsored results. According to an online survey by Georgia Tech University, Bo Xing and Zhangxi Lin (2006), over 70% of the Search Engine users prefer clicking organic results to sponsored results. The SEMPO (2006) survey concurs with this finding, showing that organic listings are chosen first by 70% of the people viewing search results, while sponsored listings receive about

24.6% of clicks.

ANALYZING FACTORS THAT PLAY KEY ROLE IN SUCCESS OF SEARCH ENGINE

This enormous success of Search Engine lies in its unique features like free access, user friendly interface, and availability of multiple Search Engines. The expertise of a Search Engine lies in its search algorithm which is a major player in fetching results for user query. India has seen the emergence of Online Business Industry as a major revenue generating Industry. This has created a race to expand business online. Google, Yahoo, MSN, have emerged as major Search Engines in India. Apart from these India has seen the emergence of local tailor made Search Engines like Khoj, Guruji, Justdial. The success of Search Advertising strategy lies in the fact that it is based on contextual advertising. Contextual advertising implies that the advertisements will be displayed relevant to the search query of the user. This increase the probability that the user will click the advertisement as it may be of its interest. Study by Anurag Gupta((2006) shows that search advertising globally is already as large as banner / display advertising. Popularity of Search Advertising lies in the fact that it is contextual and so leads to better response and secondly and more important the entire cost is based on performance (clicks) i.e. an advertiser only pays when someone clicks on his advertisement. Search Engine Marketing (SEM) has emerged as truly the marketing model of the future. With big companies like Kingfisher Airlines, MTV, Pfizer, Novartis investing in the Pay Per Click (PPC) model many Indian companies like communicate 2,web techies have came up that are totally based on Search Engine Marketing Industry.

ONLINE BUSINESS INDUSTRY IN INDIA

Most of Indian industries are expanding their business online. Study, Anurag Gupta(2006) shows that new players are emerging with the popularity of web. Travel Industry has one of the most successful online Industries. It has been estimated that nearly 20,000 tickets are being sold online. At average total revenue earned by Online Travel Portals would be in the range of Rs 430-540 Crores. www.MakemyTrip.com has emerged as the clear leader enjoying more than 50-55% of the market share. Indiatimes travel and Yatra follow behind with close to 10-15% market share each. Other prominent players include Travelguru, Cleartrip, Xplorz etc. Similarly there has been much boom in shopping entertainment industry. Yahoo India, MSN India, eBay India, Google India, Monster India has emerged as some of the most popular digital consumer brands in India. Among the popular desi digital brands – Naukri.com, Indiatimes.com, Shaadi.com, Rediff.com, Bharat Matrimony.com, and MakeMyTrip.com among others have carved a space for themselves in the Indian consumer's mind.

INDIAN ONLINE ADVERTISING INDUSTRY

As per Internet and Mobile Association of India (IAMAI) statistics India Online Advertisement market has grown to a figure of 162 crores in 2006 as compared to 42 crores in 2004. In India more and more companies are adopting Internet based advertisement methods. Big spenders are ICICI Bank, Citibank, Hindustan Lever Limited

(HLL) etc. Also matrimonial sites like Bharath Matrimony and Shaadi are offering affiliate marketing features. India's net population is expected to cross 100 million in another 2 years. So there is a huge potential for online advertisement in India. Analyzing 2006 advertisement revenue it can be analyzed that 24% revenue was generated from financial services like credit card, debit card, personal loans, home loans, insurance, mutual funds, bill payments, card loans, utility payments and investments. 11% of total advertisement revenue came from tech field, 12% from travel and 11% on automobiles. Personal online services like matrimonial services and placement services accounted total revenue of 11%. Survey by IAMAI (2006) shows that almost 70-80% of online advertising in India is happening on a handful of large sites like India times, Rediff, Yahoo India , Google India, Sify, Moneycontrol and MSN India.

SEARCH ENGINES FOR INDIA

 With the popularity of use of Search Engine Indian Online Market has seen the emergence of many local tailor made Search Engines. It has been analyzed that 90% of Internet search queries are local in nature e.g. When a user in India searches for "newspaper" Search Engine should display the top Indian newspaper websites rather then providing globalize results. To answer these queries there has been emergence of local search engines. Guruji.com backed by Sequoia Capital India is focused on providing better search results to Indian consumers, by leveraging proprietary algorithms and data in the Indian context. Khojguru, launched on 26 Sep 2006, is a local search engine which provides info about all the shops, vendors and service providers in Gurgaon. JustDial.com is a portal based Just dial service. It provides efficient search mechanism supporting synonyms and phonetics. Major Search Engines has come up with local versions to support different customers in India. Google came up with versions in Hindi, Oriya, Tamil, Telugu and more to help local people.

Table 2: Tailor made Search Engine for Indian Market [7]

Indian Local Search Engine	Description
SearchIndia.com	Search Engine on India & Indians Worldwide
BengaliBabu.com	Search Engine on West Bengal
Mirchika.com	Mumbai Search Engine
KempeGowda.com	Bangalore Search Engine
TamilRaja.com	Search Engine on Tamil Nadu
Sagar.com	New Delhi Search Engine

EMERGENCE OF A DYNAMIC MODEL FOR GETTING RICH ONLINE

Apart from establishing a successful online advertising industry Search Engines have also developed a model for getting rich online. This model is based on a simple rule i.e.

"Earn pennies at a time in exchange for allowing Search Engine to place advertisements on a personal or small-business Web page".

Major players in this role are Google and Yahoo. This model is also based on the pay-per click strategy discussed above. The Ad-publishers are supposed to give permission to Search Engine to place advertisements in their website and for every click a user makes on the advertisement the website owner gets paid by the Search Engine. People with creative ideas can get rich relatively quickly by permitting advertisers to piggyback on any web site that attracts a lot of viewers. It has been analyzed that Google pays Adsense publishers 78.5 cents on the dollar as revenue share. Google never officially disclosed details on revenue sharing but it has been observed that, as per rule Google shares 50 cents of every dollar to partners and can range up to the full dollar, depending on the size of the relationship. The study on revenue generated by Website owner's shows that most of the revenue is generated by Search Engine Advertising Industry e.g. Google Adsense program. The revenue generated by some websites using Adsense has been summarized in Table [2]. Many Indian companies are surviving on Adsense business and many Indian are earning month's salary just through such pay per click programs.   Many companies like ACT Media, Web Techies are specialized for successful Adsense campaign integration to the client's website. The revenue generated by the program highly depends on the traffic of the website. Amit Aggarwaal (2006), owner of Digital Inspiration has revealed that his blog gets around 1.25 million hits per month with a majority originating from Google followed by direct traffic (like bookmarks, rss feeds, etc). The major traffic comes from four countries - US, India, UK and Australia (in the same order). The maximum site traffic comes from four countries - US, India, UK and Australia (in the same order) and the majority of revenue earned is from Adsense. Priya Shah, an Editor, Editor Http://EbizWhizPublishing.com in her article states that "Google's TOA prevents me from making any disclosures here, but I can safely say that I now make in a day what I used to earn in a month(over a year ago)".

Table 3: Revenue generated by Adsense Publishers

Website	Revenue generated via Adsense (per month)
www.Freeweblayouts.net	$100,000
www.SeatGuru.com	$10,000 to $20,000
www.podcastdirectory.com	$30,000 to $40,000

EMERGING THREAT TO SEARCH ENGINE ADVERTISING INDUSTRY

The emergence of Search Engine as a popular advertising tool has raised the responsibility of Search Engine for providing latest, accurate quality result at minimum time. This is essential for maintaining the trust of their users and revenue generators (advertisers). Analyzing the pattern of growth of spamming on Web, it can be easily seen that spamming has evolved with the evolution of Search Engines. Spammers are now deploying different techniques just to make their way to high ranking. It could be analyzed that these techniques revolve around the Search Engine's criteria of finding relevancy of a particular page. The popularity of making money online using Search Engine model has led to creation of "Made-for-AdSense" web pages that contain little content and lots of ads, which critics say clutter the Internet and divert online searches. Such sites are created just for monetizing using advertising programs such as Google

adsense. According to Chellapilla and David Maxwell Chickering (2006) Web spam is one of the biggest threats to Search Engine industry. More spam has been observed for keywords which are popular and carry high monetary value. Web spammers act as intermediaries and sell search ranks for specific queries to businesses. Since these commercial sites are ranked inline with the other genuine Search Engine results, online users cannot tell them apart. The major techniques of Web Spamming can be listed as follows:

• Cloaking
• Click Fraud
• Link Spamming
• Advertisement blocking

CONCLUSION

Online Advertising Industry is one of the most promising revenue generating Industry. With the popularity of Web as information hub and evolution of Online Business Industry Search Engine have emerged as a most popular Advertising vehicle. Search Advertising Strategies have also captured mind of Indian advertisers and are getting popular in Indian Industry. The important reason behind its popularity is that it is a contextual based advertising and it has revenue generating options for the websites which host their ads. However, Search Engine faces leadership challenge in restricting spamming activities. Much research is required to combat such unethical practices that have adversarial affect on Online Business Industry. While analyzing the role of Search Engine in Indian business industry it has been observed that India has not mined this valuable resource completely. The basic reason is unawareness among the population. According to E-marketer daily (2005) Internet use is still uncommon in India. Many consumers do not use Internet and are dependent on traditional methods. India currently has an Internet penetration rate of less than 5% despite the existence of millions of Web users in its cities. This is the major hurdle to the use of Search Engine. To score high in Online Business Search Engine is the best medium and India needs to learn mining this valuable tool completely to get an edge in global Online Industry.

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