SUPPORT OF IT AND E-MANAGEMENT TO RESOLVE THE GLOBAL CRISIS AND RECONSTRUCT THE GLOBAL OPPORTUNITIES

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Abstract

The world is near the bottom of a global recession that is causing widespread business contraction, increases in unemployment, and shrinking government revenues. Although recent data indicate the large industrialized economies may have reached bottom and are beginning to recover, for the most part, unemployment is still rising. Numerous small banks and households still face huge problems in restoring their balance sheets, and unemployment has combined with sub-prime loans to keep home foreclosures at a high rate. Nearly all industrialized countries and many emerging and developing nations have announced economic stimulus and/or financial sector rescue packages. This paper compares the policy choices in the recent global financial crisis with those in past episodes and draws some preliminary policy lessons focusing mainly on crisis management tools and techniques in IT sectors and E-management. Country experiences in recent and past crises are examined with a particular focus on the extent to which policy choices have been affected by initial conditions and the nature of the crisis. The paper reviews the current state of financial and operational restructuring, as well as provides policy implications for the near and long term agendas and E-management Techniques. This paper will examine the various E-managements and IT policies and how it has resolve the global crisis and reconstruct the global opportunities which are affected human financial activities, pointing out in addition some of the advantages and disadvantages of the IT policies and E-management.

Keywords: E-management, IT policies, Financial Crisis, Crisis management tools, widespread business contraction, ICT

1. Introduction

"Recession is a part of the business cycle. It's foolish to assume that business will grow despite recession. It's the length and depth of recession that determines business growth." is the view of a scientist (DoMS-IITM, 2008). More than the cost arbitrage advantage that India enjoys, the main reason for the success of India is that it has the youngest workforce. The Indian IT companies should look at value co-creation with the clients and sustained profitability. They are currently either problem solvers or strategic advisors. They should increasingly look at growth as process and learn from companies like GE which has an initiative called Eco-imagination. He talked about operational levers – parameters that can affect their revenues and which help to sustain excellence. Certain Indian IT companies use their foreign exchange based growth which essentially means they use hedging to bet their base rupee value against the dollar unlike the strategy employed by mPhasis which doesn't go in for hedging. Control your destiny or somebody else will. IT firms should try and find their core competence and why are they so successful. Leverage balance sheet instead of Profit & Loss statement. The future of IT is in SaaS (Software as a Service) model but yet the IT companies are still wary of its usage and have not actually accepted their cost advantages. It helps to save 80% labour costs and increases the marginal productivity of the P/E multiples of top IT firms is actually better than its global counterparts despite its devaluation in recent months.

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The future trends of IT sector would be inorganic growth as a growth strategy rather than as an option. Industry will move towards consolidation and there will be a substantial gap in revenues of the Top 3 and the rest. Innovation and IP-led services will drive its profits. The future of Indian IT sector will entirely depend on the way it perceives its operations to be. The wider the outlook, the better the growth will be. The Indian IT companies should look at - "Going global, be global".

The global crisis triggered in 2011 from United States of America also affects a sector that accounts for the past two decades one of the determinants of growth in the global economy, that of information technology and communication (ICT). The aim of this paper is to analyze the consequences of the crisis in the ICT sector on the African countries and draw some lessons on policies to contribute to ICT development in Africa while limiting the impact of the crisis World sector. The paper examines the impact of the global crisis in the sector of information technology and communication, and the implications and lessons of this crisis for the development of the ICT sector in Africa. It is interesting to compare the impact of the global crisis in the ICT sector in Africa and the rest of the world in order to assess the more or less strong level. The limited impact of this crisis can be explained by several factors namely, first the high profits, and secondly the strong market demand. The opportunities offered by ICT are important for the growth and the development of the continent. Special measures should be taken to better organize the monitoring and control of the sector. Similarly, innovation and lower prices should be encouraged to allow ICT to play a role in the development strategy. To achieve this, it is important to strengthen regulatory authorities and establish institutes specialized in ICT training in order to have the necessary human capital. It is also important to reduce taxation. The paper is structured as follows: the first section describes the crisis of global ICT, the second section is an overview showing the place of ICT in African countries, costs and market structure, the third section shows the impact of the crisis of ICT in Africa and the fourth section draws some lessons with a focus on ICT policy in Tunisia and Mauritius, among those countries that have recorded the best performance in Africa in this field.

E-Management, an award-winning information technology (IT) solutions firm, is quickly emerging as a leader in leveraging IT capital to help government organizations. Through our services, we help agencies mitigate risk by planning, engineering, developing, or securing mission IT systems. eGov Risk Portfolio Manager provides a quick, easy, and secure way for government officials to seamlessly manage agency, program, or project-related risks. With over a decade of service to our government, e-Management brings a rare level of expertise, tools, and processes to ensure your organization's success. With the country facing significant challenges on many fronts-an energy crisis, healthcare, food safety, aging infrastructure, and wars abroad-government must play its role in building and sustaining practical solutions that better serve citizens, businesses, and local communities. That requires a partnership with industry and government where IT capital is leveraged to develop IT solutions that work in an intelligent and cost-effective way for your organization.

1.1 Resolve and Reconstruction Technique for global crisis in IT sector
- **Web Promotion.**
- **Web Marketing.**
- **Search Engine Optimization Techniques.**
- **E-governance.**
- **E-marketing.**

1.2 SEO / Search Engine Optimization:

SEO is short for search engine optimization, the process of increasing the amount of visitors to a Web site by ranking high in the search results of a search engine (Opal Infotech, 2012). The higher a Web site ranks in the results of a search, the greater the chance that that site will be visited by a user. It is common practice for Internet users to not click through pages and pages of search results, so where a site ranks in a search is essential for directing more traffic toward the site. SEO helps to ensure that a site is accessible to a search engine and improves the chances that the site will be found by the search engine.

1.3 PPC / Pay Per Click:

Pay per click (PPC) is an advertising technique used on websites, advertising networks, and search engines. Pay per click (PPC) is an advertising technique used on websites, advertising networks, and search engines (Media Marketing Online, 2009). For example, if an advertiser sells red widgets, he/she would bid on the keyword "red widgets", hoping a user would type those words in the search bar, see their ad, click on it and buy. These ads are called "sponsored links" or "sponsored ads" and appear next to and sometimes above the natural or organic results on the page. The advertiser pays only when the user clicks on the ad. While many companies exist in this space, Google Adwords and yahoo search Marketing, which was formerly Overture, are the largest network operators as of 2006. In the spring of 2006, MSN started beta testing their own PPC service, MSN. Depending on the search engine, minimum prices per click start at US$0.01 (up to US$0.50). Very popular search terms can cost much more on popular engines. Abuse of the pay per click model can result in click fraud.

1.4 Pay Per Inclusion

Paid inclusion is a search engine marketing product where the search engine company charges fees related to inclusion of websites in their search index. Paid inclusion products are provided by most search engine companies, the most notable exception being Google. The fee structure is both a filter against superfluous submissions and a revenue generator. Typically, the fee covers an annual subscription for one webpage, which will automatically be catalogued on a *regular* basis. A per-click fee may also apply. Each search engine is different. Some sites allow only paid inclusion, although these have had little success. More frequently, many search engines, like Yahoo!, mix paid inclusion (per-page and per-click fee) with results from web crawling. Others like Google (and a little recently, Ask.com), do not let webmasters pay to be in their search engine listing (advertisements are shown separately and labelled as such). Some detractors of paid inclusion allege that it causes searches to return results based more on the economic standing of the interests of a web site, and less on the relevancy of that site to end-users. Often the line between pay per click advertising and paid inclusion is debatable. Some have lobbied for any paid listings to be labelled as an advertisement, while defenders insist they are not actually ads since the webmasters do not control the content of the listing, its ranking, or even whether it is shown to any users. Another advantage of paid inclusion is that it allows site owners to specify particular schedules for crawling pages. In the general case, one has no control as to when their page will be crawled or added to a search engine index. Paid inclusion proves to be particularly useful for cases where pages are dynamically generated and frequently modified. Paid inclusion is a search engine marketing method in itself, but also a tool of search engine optimization, since experts and firms can test out different approaches to improving ranking, and see the results often within a couple of days, instead of waiting weeks or months. Knowledge gained this way can be used to optimize other web pages, without paying the search engine company.

1.5 Banner Advertising Programmes -- Cost Per Impression (CPI) / Cost Per Thousand (CPM), Cost per Action (CPA) / Cost Per Click (CPC)

The web banner or banner ad form of online advertising entails embedding an advertisement into a web page. It is intended to attract traffic to a website by linking them to the web site of the advertiser. Banner Ad programs can be structured into any of the following types of programs. Cost Per Impression is a phrase often used in online advertising and marketing related to web traffic. It is used for measuring the worth and cost of a specific e-marketing campaign. This technique is applied with web banners, text links, e-mail spam, and opt-in e-mail advertising, although opt-in e-mail advertising is more commonly charged on a Cost Per Action (CPA) basis. The Cost Per Impression is often measured using the CPM (Cost Per Thousand; "M" is the Roman numeral for 1,000) metric. (A CPM is the cost of one thousand (1,000) impressions.) CPM is considered the optimal form of selling online advertising from the publisher's point of view. A publisher gets paid for each ad that is shown. This type of advertising arrangement closely resembles Television and Print Advertising Methods for speculating the cost of an Advertisement. Often, industry agreed approximates are used. With Television the Nielsen Ratings are used and Print is based on the circulation a publication has. For Online Advertising, the numbers of views can be a lot more precise. When a user requests a Web Page, the originating server creates a log entry. Also, a third party tracker can be placed in the web page to verify how many accesses that page had. CPM and/or Flat rate advertising deals are preferred by the Publisher/Webmaster because they will get paid regardless of any action taken. For Advertisers a Performance Based system is preferred. There are two methods for Paying for Performance: 1) CPA - Cost per Action/Acquisition and 2) CPC - Cost per Click Through.

1.6. Affiliate Marketing

Affiliate marketing is a method of promoting web businesses in which an affiliate is rewarded for every visitor, subscriber, customer, and/or sale provided through his/her efforts. It is a modern variation of the practice of paying a finder's fee for the introduction of new clients to a business. Compensation may be made based on a certain value for each visit (Pay per click), registrant (Pay per lead), or a commission for each customer or sale (Pay per sale), or any combination. Merchants like affiliate marketing because it is a "pay for performance model", meaning the merchant does not incur a marketing expense unless results are realized. Some e-commerce sites run their own affiliate programs while other e-commerce vendors use third party services provided by intermediaries to track traffic or sales that are referred from affiliates. Some businesses owe much of their growth and success to this marketing technique, although research has shown in general the increase to be approximately 15-20% of online revenue. Merchants who are considering adding an affiliate strategy to their online sales channel have different technological solutions available to them. Some types of affiliate management solutions include: standalone software, hosted services, shopping carts with affiliate features, and third party affiliate networks. Revenue generated online grew quickly. The e-commerce website, viewed as a marketing toy in the early days of the web, became an integrated part of the overall business plan and in some cases grew to a bigger business than the existing offline business. Many companies hired outside affiliate management companies to manage the affiliate program.

1.7 Online Reputation Management

Online reputation management is a developing field that encompasses public relations and search engine optimization. Consumers go online to make buying decisions. When they research branding search engines, the results that they observe often influence how they behave. Consumer generated media sites offer the general public the opportunity to express

their views of brands. This information can be found in search engine results. Members of the public such as competitors, and ex-employees can take part in the online conversation which can adversely affect the brand reputation. Online reputation management is a field that involves the monitoring of online conversation, and the action undertaken, to improved brand reputation within search engine results. These components are extremely crucial in order to successfully marketing your products and services online. With the right Online Marketing firm, your company can see exponential growth with a highly satisfactory return on investment. The most rewarding aspect of online marketing is the brand recognition that comes with your campaign. The actually campaign effectiveness can be tracked in terms of dollars through ROI calculations. However, this is would be part of short–term success.

1.8 Blended Search Optimization

Blended Search Optimization has been one of the most important areas of focus for online marketers in the last couple of years and will be in next coming years. With the release of Universal Search in May of 2007, Google was the first major search engine to delve into blended search results. ASK quickly stepped in with the very cool ASK 3-D results, but it continues to be Google that leads the way when it comes to blended search result. So, what are blended search results? Simply put, blended search results are those results that are not the typical blue link and description that we have traditionally seen on a Search Engine Results Page (SERP). Blended results consist of:

*   news results
*   video results
*   image results
*   blog results
*   book results
*   and more

Blended Search Optimization should be part of your online marketing strategy. Search Marketing Now is presenting a webcast on Blended Search: Strategies for Large SEO Campaigns. Blended search is often referred to Search 3.0.

Search 1.0 - keyword matching an Boolean logic, the first generation of search engines. Was easy to optimize for and easy to spam.

Search 2.0 - link analysis and linking popularity features of the algorithms. A link to a site was treated as a "vote of authority" for a given page, rankings were determined as a result. The results of the top 10 links were selected from an index of billions of pages
.
Search 3.0 - Blended Search - other types of content, articles, news and vertical searches such as images and videos.

Google has taken a conservative approach with blended search. For some queries Google restricts the number of blended results that is displayed. They do this so that they do not alienate their existing users. This has made it difficult to do a pure "Web Search" on Google. Google has now turned to a more speculative approach to serving up results. Blended search is that we can have more than 10 results appearing on search results in the search engines. As a result good SEO is still crucial. People are relying more and more on search engines to take them to the sites that they are looking for. Current SEO techniques are not going away, but online marketers will need to apply best practices for optimizing the various types of content for blended search. As an example:

- images should include descriptive alt text, filenames and keyword rich surrounding text
- images in blended search are most liekly to appear for products, people or famous places
- news releases should include links as press releases are crawled and included in Google News Search.
- optimize news release content as you would a normal webpage
- optimize for local search (if you have a local business)
- ensure that you local information is accurate, timely and up-to-date
- include tons of location based content on your website to be found in local results
- with video, be sure to include rich and descriptive information about your video
- use descriptive text on the page where the video is embedded
- include the URL to your site within the video to encourage traffic to your web properties

Blended Search offers an opportunity to convey your content to your audience through various formats. There were some great questions during the Q&A session of the Webcast.

2. E- Management (E-marketing)
2.1 Content of e-marketing

What's the e-marketing? Up to now, there is no united or standard definition. But, from the very definitions given now, we find out that, e-marketing is not only including the professional works that the marketing department deal with in marketing operating, but also it needs the cooperation by the relation business department such as procurement departments, producing department, financial department, Human Resource department, Quality supervision management department, product developing and designing department etc., and according to the demand of marketing to redesign and recreate the enterprise business standard by using computer network, so as to adapt to the demand of digital management and business in the network knowledge economy era (Lao, 2005).

So, e-marketing is the strategy that the agency or organization uses the modern communication technology methods to exchange the potential market into reality market. It is an important part of the whole marketing strategy, and it is a kind of marketing tactics to realize the marketing goals based on Internet]. The network marketing is that we can use Internet making continuously services in the every step of products pre-selling, products selling and products after-selling. It runs in the whole process of business operations and includes the search for new customers, service for old customers. It is the process which is based on modern marketing theory and uses of Internet technology and its functions to meet needs of customers, in order to realize the goals of developing new marketing and increasing operating profit.

2.2 Characteristics of SEO and E-marketing

(1) They have same basic theories such as computer science, management science, information system, economics, marketing, financial accounting, as well as sociology, linguistics (involving the translation of international trade), robotics, operation research / management science, statistics, public policy etc.

(2) They have same basic technologies such as modern communication technology, computer network technology, especially the internet technology, Web technology, wireless network technology, database technology, electronic payment technology, security technology etc.

(3) They have similar content of business activities because of having same function of promotion, such as displaying of e-commerce product, web site promotion, product marketing information transporting etc.

(4) They have same invisible characteristics because of the data expressing and transmitting are all electronically.

(5) They have same across temporal and spatial characteristics. Scale of operation is not restricted by time and geographical.

(6) They all can achieve low-cost. Both of them all have a "no inventory" feature, and very low cost advertising and operating.

(7) They all can change the operation mode of enterprise, and will promote the enterprises to reform the model of business and management.

2.3 Implementing process of SEO and E-marketing

E-marketing is the e-marketing in the environment of e-commerce, its smooth developing requires supporting by e-commerce and SEO platforms, and requires supporting by external basic environment such as banks, trading centers, and laws and regulations, policies relating to SEO, a certain number of internet companies and the number of internet users, the necessary internet resources etc, and requires supporting by the internal basic conditions such as the concepts and strategies of operating and managing, information technology etc.

In theory, no matter what kinds of e-marketing to take, as long as they links to the internet, the enterprise has the basic conditions to develop e-marketing, and it can make initial marketing activities such as publishing some supply and demand information on internet, and exchanges with customers by e-mail, etc. However, an enterprise wants to carry out SE and e-marketing, in addition to build SEO platform firstly, but also needs to make a series of analysis and comparison, and needs to make e-marketing programs according to the enterprise demands and internal conditions. Generally, there are four programs on building e-commerce platforms to be adopted by enterprises (Meng, 2009), and the working steps of SEO and e-marketing shown in Table1.

Table1. General workflow of SEO e-marketing

Three Stages	Market Analysis and Research	Implementing SEO and E-marketing
Content (Steps)	Content of analysis and Research	Steps to implement SEO and E-marketing.
	1. Product Characteristics	1. Information colleting.
	2. Competing Environment.	2. Web Promotion.
	3. Financial	3. Online negotiating and Signing of contract.
	4. Human Resources	4. Online transacting and paying.
	5. S/W and H/W collection.	5. Link Building.
	6. Algorithm implementation and flow charts.	6. Other work.

2.4 Developing Model of SEO and E-Marketing

While the management philosophy is continuously improving, the method of modern management science is innovating; the information network technology (especially wireless network technology) is developing and is being applied (Meng, 2009). SEO e-marketing will be developed toward the integrating direction, and it must gradually form an integration that the wired network and wireless networks co-exists, internal management and external commodity trading and marketing activities coordinate, and SEO and e-marketing gradually integrate.

(1) Integration of every component. The model is an organic integration of the various parts, the e-commerce, e-marketing, internal management and external customers is linked by wireless or wired network, to coordinate with each other and interrelated.

(2) Network. It is mainly linked by wired network between internal departments (module), but it is mainly linked by wireless network between external customers, to realize trade activities, marketing activities, personalized services and negotiations.
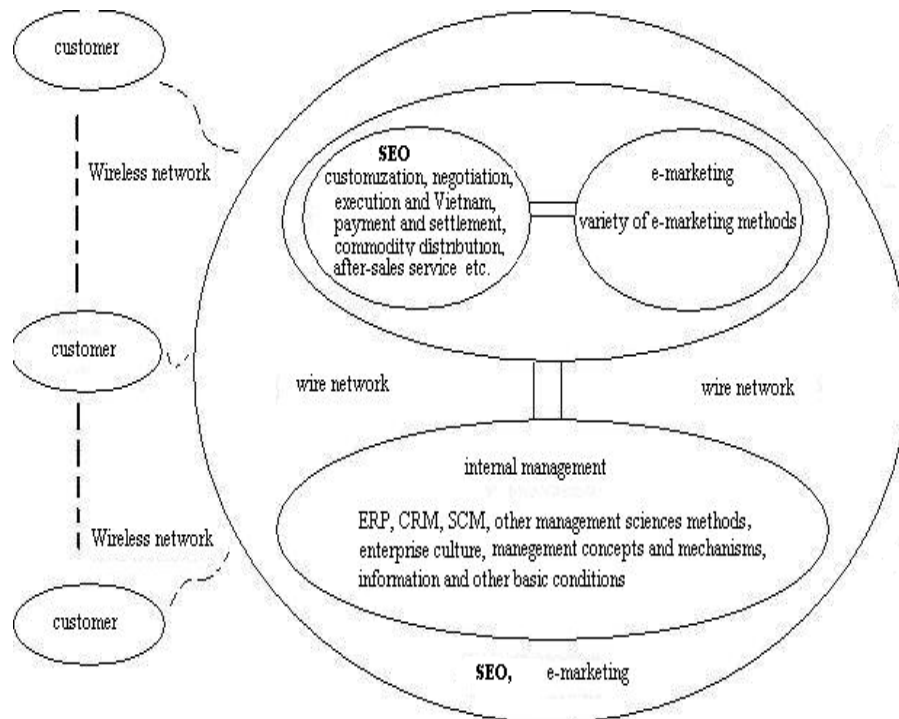

Figure 1. Developing model of SEO and e-marketing

(3) Functions of each part. SEO module should have functions that meet customization needs of customers, business negotiating, online signing, online payment and settlement, commodities distributing and logistics services, after-sale service etc. E-marketing module should have functions such as search engine marketing, online advertising and other "wired" .E-marketing, as well as short message marketing and other "wireless" e-marketing methods. A variety of online marketing methods are more flexible and integrated application. Internal management module should comprehensive use ERP, SCM, CRM and other advanced modern management science methods to make the internal enterprise management, and at the same time, it integrated with the corporate culture, management philosophy, management system, information technology infrastructure.

3. Conclusion

The Indian IT sector, especially software services, will do well to sustain the growth momentum as demand for its offerings in export and domestic markets continue to be favourable despite uncertainty, arising mainly out of the Euro crisis," a top industry representative told IANS ahead of the third quarterly (Oct-Dec) earnings season. According a research study by an international bank, the Indian IT vendors are in a position to pitch for multi-billion dollar deals that are due for renewal this year and compete for large annual contracts that are up for grabs in new service lines. "In hard times, when companies across verticals look for cutting costs and focus on core business, they will scout for partners to manage their non-core activities such as IT services, which means more business for our sector," with the help of applying strong E-management and strong SEO Techniques (IT) .

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