

PGDM / PGDM (IB), 2012-14

Technology Management

DM-543 / IB-542

Trimester – IV, End-Term Examination: September 2013

Time allowed: 2 Hrs 30 Min

Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means**. In case of rough work please use answer sheet.

Sections	No. of Questions to attempt	Marks	Marks
A	3 out of 5 (Short Questions)	5 Marks each	3*5 = 15
B	2 out of 3 (Long Questions)	10 Marks each	2*10 = 20
C	Compulsory Case Study	15 Marks	15
		Total Marks	50

Section A

3 out of 5 (Short Questions) 5 Marks each, 3*5 = 15

1. What is Technology Management? Why do we need it ?
2. What is the Purpose of Strategy and how Technology helps in achieving it?
3. Draw the S-curve and explain its various stages
4. Draw the timing and impact of management attention at different stages of technology development ? Explain with a diagram.
5. What are the motivations of doing Strategic Information Technology Planning?

Section B

2 out of 3 (Long Questions) 10 Marks each, 10*2 = 20

6. Describe with a suitable diagram the Integrated IT Planning framework as explained in the class
7. Describe with a diagram Technology Management Strategy Process. Explain the motivations for adopting technology management
8. What are the components of Operational and Analytical CRM. Explain each one of them with an example.

Section C

Marks 15 Answer all questions with respect to the case given

9. What are major business problems discussed in this case.
10. What are Actions and initiatives taken by the organization with technology management perspective to address them.
11. Given the new technology such as SMAC, Big Data, Ubiquitous computing etc coming up, would you give some suggestion where they can be used and for what benefits. (Please see the case over leaf)

Case for section C

GOOGLE CASE STUDY

Google was started as a research project by two Stanford PhD students named Sergey Brin and Larry page. They registered the domain name google.com in the year 1997 and in September 1998, it became a privately owned incorporate Google Inc. With its extensive research on search algorithms and use of state of the art technology, Google successfully established its brand name in internet search engines market. By the year 2004, Google came up covering over 75% of US web search market. Though Google is a dominating player in internet searching market, it has to compete with its rivals in this field where there is no long time entry barrier. Google can expand / change its business model to survive in this best search engine race.

Google SWOT Analysis

STRENGTHS

1. Google – Already number one search engine has established a brand name, in which its users trust. It's dependable, reliable and fast.
2. Google needs very little end user marketing as the name itself is getting word by mouth publicity.
3. Google has a simple interface and it gives comprehensive results without confusing
4. Google has low operation cost as it uses low cost UNIX web servers for indexing millions of web pages across internet.
5. Google has hired PhDs who are continuously working hard in order to enhance search algorithms and make searching faster, efficient and relevant.
6. Google provides an interface to 88 languages to make it comfortable to search for its users in different countries.
7. Google uses state of the art search technology to index pages regularly in order to give most updated results to its users.
8. Google also weights the votes and ranks web pages with its Page Rank technology to give its user access to most important pages first.
9. Google is not biased towards advertisers. It clearly separates relevant advertisements and actual results by giving "Sponsored Links" tag to sponsored results when user searches to get information with some keyword. Moreover, it also ranks sponsored links to keep most relevant sponsored links on the top.
10. Google offers localized search called "search by location" where users can get results showing vendors, products and services nearby their areas.

11. Google also has a range of innovative additional services like Images, Groups, Directory, and News. Google didn't complicate its website by making itself a portal; rather it kept tabs for these services on its homepage so users can easily navigate and that also keeps the website as simple as it was earlier.
12. Google has also come up with solutions for wireless handheld devices, personalized toolbars, catalogues which are added essence strengths.
13. Google quickly routes the user to the webpage and doesn't linger for ad revenue.

WEAKNESSES

1. Many spammers manipulate Google's ranking technology by creating dummy sites with thousands of links to pages that they wanted Google to rank highly.
2. Google's link based ranking did not employ actual traffic analysis.
3. Google's Cost Per Click advertising charging and ranking policy is confusing and makes it difficult for marketers to predict where their ads would be positioned and how much they would cost.
4. Google's contextual advertising was perceived by marketers to be less effective in generating sales because visitors to web pages showing editorial content were less likely than searchers to be ready to buy.
5. Contextual search algorithms are not 100% perfect and many a times make mistakes.
6. Google's localized search algorithms too sometimes result in errors due to automated indexing.
7. Google's business model is complex, depending upon both google.com and mass market portals for its revenue.
8. Although Google is a dominating player among search engine websites, only 50% to 65% of web search queries are answered accurately by it.
9. Google doesn't have "sticky" like Yahoo! And MSN have which can attract users.
10. Google doesn't have highly personalized search by which it could charge users with switching cost if they decide to leave Google's services.
11. Portal to lock in large number of users and advertisers.
12. Google can start giving fully fledged services on hand held mobile devices

THREATS

1. Google partially depends upon some portals like AOL. Getting those contracts terminated, Google would lose considerable share of its revenue.
2. There is no long time entry barrier in this business. Many competitors can emerge in coming years with same services, better interface and names and can catch up Google's market.
3. Google's confusing Cost Per Click ranking and charging policy could disappoint its advertisers and company would start losing many of them.
4. Competition and rivalry:
 - Portals like yahoo provide more services and solutions with conventional search than Google do. Google would start losing its users due to added attractions in such portals.
 - MSN is coming up with its new operating system called "Longhorn" which would be having "implicit query" feature. Longhorn search will be able to search the web, blogs, news sources, hard drive files, email plus attachments all from a keyword search without a browser. Users will be able to search directly from already established Microsoft programs like MS word. This would handcuff users and ultimately it would harm Google's market.
 - Overture has been Google's old competitor. Though Google has acquitted more advertisers than Overture, Google's share of market revenue lags behind overture by 20% and there is always competition for getting collaborated with well known mass-market portals like AOL, Yahoo and MSN.

5. Google's scale might also become a liability in order to cop up with new and enhanced search techniques if company's ability to modify its algorithms and database architecture was constrained by its server infrastructure and the size of its index.
6. If Google comes up becoming portal, it may lose its simplicity and comprehensiveness because of which it is a favorite among its users.
7. Google can get trapped in issues regarding privacy if it decides to go for highly personalized search for which it has to capture user's personal information.
8. If Google decides to merge with some already established mass-market portal, it will start losing its well earned brand name.