

Website Evaluation of Select Pharma Industries: An Evaluation

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Abstract

Technology has expanded the range and ease of information access at the expense of personal contact. The implications for libraries are substantial: a need to more clearly identify groups of users and their different needs. One way of attempting to meet such needs, and one of the most important new elements in the electronic library environment, is the website. Simultaneously, the need for evaluation is felt very keenly in libraries. In times of rapid and profound societal and technological change, evaluation is essential to preserving the viability and the visibility of libraries. This article describes how top ranking Pharma Industries perform, show their information strength. Therefore, their websites are evaluated to indirectly know the emphasis on information. This study has outlined the major aims and methods of select Pharmaceutical Industries websites. It has explored the criteria by which library websites are evaluated and the measures used to assess those criteria. Generally for evaluating websites there are many criteria available in literature. However, certain special criteria depending on the nature of subject and type of organization were found out for evaluation.

Keywords: Website evaluation, Pharmaceutical Industry

1. Introduction

Healthcare is one of important service provided by the government of any Country. Creating congenial atmosphere for establishing and sustaining pharma industry is an essential step in providing healthcare. The foundation of the modern Indian pharmaceutical industry was laid in 1901, when a small factory known as the Bengal Chemical and Pharmaceuticals Works, was established in Calcutta. After independence, the development of Indian drugs and pharmaceutical industry did not commensurate with the size of this country and the growing needs of population. Since then the progress of this industry has been substantial and many-sided with the result that it has become one of the country's leading industries.

R & D is the key to the future of pharmaceutical industry. The pharmaceutical advances for considerable improvement in life expectancy and health all over the world are the result of a steadily increasing investment in research. The R & D expenditure⁶ by the Indian pharmaceutical industry is around 1.9% of the industry's turnover whereas foreign research-based pharma companies spend 10 - 16% of the turnover on R & D.

One of the principle roles of the pharmacist is the retrieval and communication of information and the Internet will undoubtedly become an important tool. There is a wide range of pharmaceutical information available on the Internet with new sources of information appearing continuously. A good starting point is Pharm Web. It was developed for pharmacists, health-related professionals and patients in 1994. The types of information available include journals, drug and health-related information, discussion groups, pharmaceutical company information resources, conference information etc. Many of the sources of information (e.g. pharmacopoeias) that are presently accessed via paper or CD-ROM are now becoming available via the Internet.

It is relatively easy to create a web site with a convincing and professional 'look and feel'. Many health-related websites have been developed by non-professionals. These sites may contain inaccurate and/or potentially hazardous information that may be perceived erroneously as reliable sources by the general public. It is important that the professional can assess the validity of such sites. Several criteria have been proposed to evaluate these sites.

2. Objectives/Methodology of the Study:

Generally for evaluating websites there are many criteria available in literature. In view of this the present study has set the following three objectives:

1. to identify general and special criteria suitable for evaluation of select multinational pharmaceutical industries websites,
2. to compare the pharmaceutical industries based on their content of websites and,
3. to rank the institutions covered in view of the above study.

The nature of objectives suggests that it is an evaluation study, and the evaluation is carried out using content analysis (C.A.) of websites. Evaluative research is almost like comparative study. Only one difference is that, in comparative research more than one object are considered and compared with each other. On the other hand, in evaluative studies the objects of research are compared with some model or ideal or standard objects/system/process. This type of comparison only points at how good or poor is the object under study with respect to some chosen criteria/norms/standards. In this study the ten select pharma industries websites are compared by using some general and special criteria. Whereas C.A. focuses on the present and past time, yet it is neither a survey nor a historical study. But, it has shades of these two methods. The greatest advantage of C.A. is that it is very economic in its applications. It saves time, labour and money because it is basically a deskwork. Researcher can work at his convenience. The process of analysis is based on scoring and cummulation of the scores.

The following 10 pharmaceutical industries were selected for the study:

1. Ranbaxy
2. Dr. Reddy's Laboratories
3. Cipla
4. Lupin Labs
5. Ipca Laboratories

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6. GlaxoSmithKline Pharma
7. Sun Pharma
8. Aurobindo Pharma
9. Johnson and Johnson
10. Piramal Healthcare

The core aspect of project was evaluation of websites of Pharmaceutical Industries. Finally, the websites were evaluated by using the following general and special criteria:

A. General Criteria

1. Authority
2. Accuracy
3. Objectivity
4. Currency
5. Coverage
6. Content
7. Graphics
8. Ease of Use/Navigability
9. Use of Colour
10. Readability
11. Hyper Links

B. Special Criteria

Therefore, it can be seen that an attempt is made to cover many of the pharmaceutical industries websites. The scope of this project is limited to ten websites and an attempt is made to cover all the aspects of the site by using the following seven special criteria.

1. Investor Relation

The investor relations function of the site attempts to give every possible information that an investor/prospective investor or analyst needs.

2. Global Presence

It gives the links/details of all the Family or Group of Companies around the world. Details and links to branches and specialized units should be provided.

3. R & D

It gives the detail about the drug discovery, drug development and clinical research etc. is given. It reflects openness towards research attitude. It helps in building better image.

4. Patented Products

The list of patented products should be given. It tells how progressive the company is. Besides, money flows in by licensing the patents.

5. Product and Service Range

If you would like to know what products the companies sell in your country or if a specific product is sold in your country, recent products and the service range, one of the best ways to find out is through the local Websites of the operating companies. This increases the utility of the site, and it does true marketing of the firm.

6. Employee Desk

The best method of knowing about a company is to find out all you can from the people working in that company. So go ahead and take a look at what people have to say about working at company. Employee speak and employee development programme/scheme, career advancement, rewards etc. offered by the Industries.

7. Career Opportunities

This section covers the questions regarding careers and job opportunities available at the company.

Values were given to each site with respect to each criteria, by considering the following scoring system:

TABLE 2.1: Scoring system

Score	Connotation
1	Poor
2	Fair
3	Good
4	Very Good
5	Exceptional

The scoring has to be unambiguous, consistent and uniform. Therefore, the following base was created –

TABLE 2.2: Ranking Method

Sr. No.	Criteria	Sub-Criteria	Description	Ranking				
				5	4	3	2	1
General Criteria:								
1	Authority	Contact details	address under each heading	✓				
			separate link which give vast list of address		✓			
			few main addresses like corporate, career, investors etc.			✓		
			only corporate office address				✓	
			no address					✓

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2	Objectivity	Advertisement and external links	no advertisement and external links	✓					
			Adversitement and external links					✓	
3	Currency	Last update details	if daily updated	✓					
			if daily updated BSE/NSE information		✓				
			if details are current like events etc			✓			
		If copyright year is:	© 2009		✓				
			© 2008			✓			
			© 2007				✓		
			© on or before 2006					✓	
no information						✓			
4	Accuracy	Are the facts well researched, documented and able to be verified	- if each special criteria are covered	✓					
	Coverage	Treatment of the topic							
	Content	Is enough information present			✓				
	Readability	Pages/Layout easy for the visitor to read	- any one criteria left			✓			
	Hyper Links	Links to more information on the topic relevant and carefully selected	- any two criteria left - more than two criteria are left - no information about any special criteria				✓		
5	Graphics	Loading time	no loading time	✓					
			less than a 30 sec.			✓			
			less than a minute				✓		
			a minute time					✓	
			excessvie time						✓
		Navigation	graphics with navigation		✓				
			no graphics no navigation						✓

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Special Criteria:						
6	Investor relation	Covers annual results, financial results, shareholding details, balance sheet, profit and loss acoutns, cash flow till 2008-09	✓			
		Covers annual results, financial results, shareholding details, balance sheet, profit and loss acoutns, cash flow till 2007-08		✓		
		only annual reports and few details			✓	
		only annual report				✓
		no details				✓
7	Global presence	map with link	✓			
		name of the countries with link		✓		
		brief information and address with image			✓	
		just address				✓
		no information				✓
8	R & D	information available under the proper heading as 'R & D'	✓			
		information available in some other heading		✓		
		information available with no proper heading			✓	
		no information				✓
9	Product and Service Range	product name with image, logo and link	✓			
		product with breif information		✓		
		country wise alphabetical list only			✓	
		alphabetical list only				✓
		no detials				✓
10	Employee	Employee speech with name and designation and in audio form also	✓			
		Employee speech with name and designatio		✓		
		information given in paragraph about employee development programme, training, etc.			✓	
		information in small paragraph				✓
		no information				✓
11	Career	Vacancies details available department wise with description, posting date and apply option	✓			

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	Current opening with email option		✓			
	Just a information is available to send resume					
	No information			✓		✓

The following sheet used to evaluate the select 10 pharma industries:

1=Poor, 2=Fair, 3=Good, 4=Very good, 5=Exceptional

Sr. No.	Name of the Criteria	Ranking				
		1	2	3	4	5
A. General Criteria						
1	Authority					
	Can the page author be easily identified?					
	Where is the document published? Check the URL domain?					
	Contact person is stated with their addresses?					
2	Accuracy					
	Are the facts well researched, well documented, and able to be verified?					
	Is the information reliable and error-free?					
	Is the information up-to-date?					
3	Objectivity					
	Is there any advertising on the page; If so information might be biased?					
	Is the site inwardly focused or linked to external sites?					
4	Currency					
	Is the page dated; If so when was the last updated?					
	The document includes date of copyright.					
	If statistical or research data is presented, is the time of collection clearly stated?					
5	Coverage					
	Is the treatment of the topic (selected or broad) clearly stated?					
	Is the page complete or under construction?					
	What does this page offer that is not found elsewhere?					
6	Content					
	Is the page or site title appropriate and descriptive?					
	Has the content Print/Email option?					
	Is enough information present to make the visit worthwhile?					
7	Graphics					
	Are graphics clear and attractive and Do graphics contribute to the purpose of the page?					
	Will graphics contribute to excessive loading time?					
	Do graphics aid visitor with navigation?					

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8	Ease of Use/Navigability						
	Is the site layout easy to understand? And can you navigate readily from page to page?						
	Easy to get back to Home page or the top of a page?						
	Is the loading time excessive?						
9	Use of Colour						
	Are colours attractive and appealing to most visitors?						
	Do too many colours contribute to messy look?						
10	Readability						
	Are the pages easy for the visitor to read?						
	Are type fonts readable, attractive and properly sized?						
	Will your pages look good with various browsers?						
11	Hyper Links						
	Are links to more information on the topic relevant and carefully selected?						
	How many links really contribute to the purpose of your site?						
	Are your links easy for the visitor to spot?						
B. Specialize Criteria							
12	Investor Relation						
13	Global Presence						
14	R & D						
15	Patented Products						
16	Product & Service Range						
17	Employee Desk						
18	Career Opportunities						

Total Points Obtained = _____ Out of 200

3. Results and Discussion:

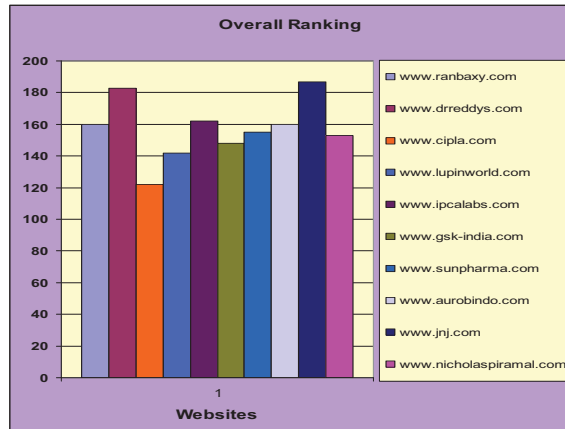
Overall observations of 10 pharmaceutical industries websites can be explained with the help of following table and diagram:

TABLE 3.1: Overall Ranking of Ten Websites

Name of the Website	General Criteria										Special Criteria						Marks out of 200	Rank		
	Authority (15)	Accuracy (15)	Objectivity (10)	Currency (20)	Coverage (15)	Content (20)	Graphics (15)	Navigability (15)	Colour (10)	Readability (15)	Hyperlinks (15)	Investor Relation (5)	Global Presence (5)	R & D (5)	Patented Product (5)	Service Range (5)			Employee (5)	Career (5)
www.ranbaxy.com	15	11	10	14	14	16	09	10	10	13	13	03	05	05	03	03	05	01	160	4 th
www.dmedidys.com	15	13	10	18	15	20	09	15	10	15	15	05	04	04	03	03	05	04	183	2 nd
www.cipla.com	08	11	10	12	12	09	03	11	10	11	10	04	01	01	03	03	01	02	122	10 th
www.lupinworld.com	15	13	10	14	13	10	03	13	07	11	12	04	01	05	04	04	01	02	142	9 th
www.ipcalabs.com	15	13	10	14	15	16	03	15	08	14	15	03	02	04	04	04	02	05	162	3 rd
www.ask-india.com	15	11	10	16	13	14	03	13	09	12	12	04	05	01	03	03	01	03	148	8 th
www.sunpharma.com	15	13	10	14	09	14	15	09	09	12	13	04	01	05	04	05	01	02	155	6 th
www.aurobindo.com	15	12	10	12	14	15	10	14	10	13	14	04	02	03	03	03	01	05	160	5 th
www.jni.com	13	15	10	19	15	20	13	09	10	15	15	05	05	03	05	05	05	05	187	1 st
www.nicholaspiramal.com	14	14	10	15	14	15	03	13	04	13	14	05	01	05	03	03	02	05	153	7 th

Note: Bracket marks indicate the total marks under each criteria

GRAPH 3.1: Overall Ranking of Ten Websites



A. Some Observations of General Criteria

- Out of ten websites Cipla secured the least number of marks in authority because it does not have a proper title and contact addresses except corporate office whereas Johnson & Johnson and Nicholas Piramal secured highest marks.
- Websites Johnson & Johnson and Nicholas Piramal secured highest marks in accuracy than the other sites.
- All ten sites secured full marks in objectivity as they had not given any advertisement and even not focused or link to external information resources.
- Out of ten websites not a single site is updated daily.
- Johnson & Johnson and Dr. Reddy sites secured highest marks in currency whereas Aurobindo and Cipla secured less marks.
- Johnson & Johnson, Dr. Reddy's and Ipca sites secured highest marks in coverage whereas Sunpharma secured the least scores as it does not give the information about all special criteria.
- Johnson & Johnson and Dr. Reddy's secured highest marks in content whereas Cipla secured least marks as site title is not mentioned, print/email option is not available and the entire special criteria are not covered.
- Sunpharma secured highest scores in graphics whereas Johnson & Johnson followed because of loading time.
- Dr. Reddy's and Ipca sites secured highest marks in navigability whereas Johnson & Johnson secured less marks because of loading time and not easy to get back to homepage or the top of the page.
- All sites secured highest marks in use of colour except Nicholas Piramal where too many colours give messy look to the site.

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- Johnson & Johnson and Dr. Reddy's secured highest marks in readability because the option is available to increase or decrease the font size whereas remaining sites secured good marks.
- Both Ranbaxy and Aurobindo secured the same total but the ranking is done on the basis of marks secured in special criteria.

B. Some Observations of Special Criteria

- Johnson & Johnson, Dr. Reddy and Nicholas Piramal secured highest marks in investor relation by giving up to date details till 2008-09.
- Johnson & Johnson, Ranbaxy and GlaxoSmithKline Pharma secured highest marks in global presence whereas Sunpharma, Nicholas Piramal, Lupin and Cipla had given no information about it and secured less marks.
- Ranbaxy, Sunpharma, Nicholas Piramal and Lupin secured highest marks in R & D than the other sites.
- Johnson & Johnson secured highest marks in Product and Service Range.
- Johnson & Johnson, Dr. Reddy and Ranbaxy secured highest marks by giving excellent information about employee development, training and employee speech with name and designation whereas Aurobindo, Sunpharma, GlaxoSmithKline, Lupin and Cipla had not given information about it.
- Johnson & Johnson, Ipca, Aurobindo and Nicholas Piramal had secured highest marks by giving excellent information about the career opportunities whereas Ranbaxy had not given information about career opportunities and secured less marks.

C. Observations of Top Three Websites Evaluated

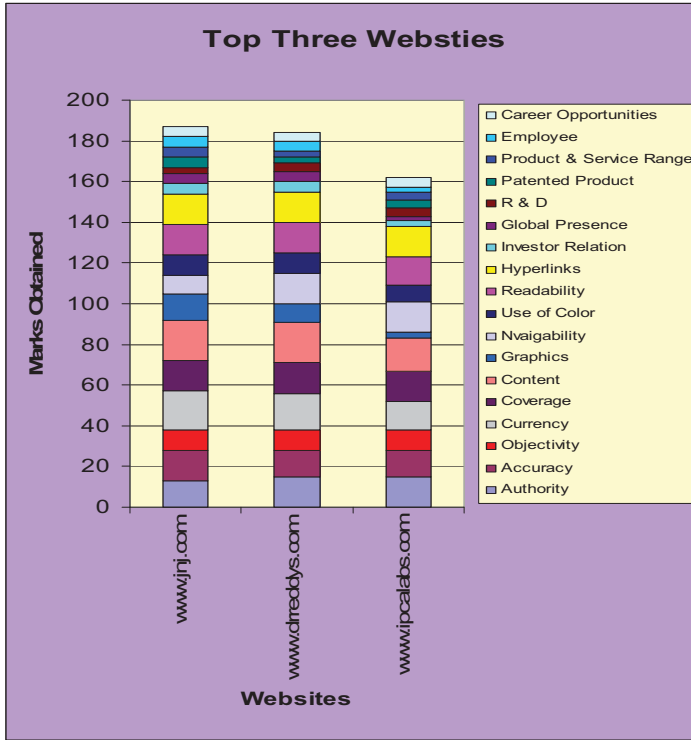
The following section focuses on the three top ranking pharma industries.

TABLE 3.2: Marks Scored By Top Three Websites

Name of the Website	General Criteria										Special Criteria							Marks out of 200	Rank	
	Authority (15)	Accuracy (15)	Objectivity (10)	Currency (20)	Coverage (15)	Content (20)	Graphics (15)	Navigability (15)	Colour (10)	Readability (15)	Hyperlinks (15)	Investor Relation (5)	Global Presence (5)	R & D (5)	Patented Product (5)	Service Range (5)	Employee (5)			Career (5)
www.inl.com	13	15	10	19	15	20	13	09	10	15	15	05	05	03	05	05	05	05	187	1 st
www.dirredlys.com	15	13	10	18	15	20	09	15	10	15	15	05	05	04	03	03	05	04	184	2 nd
www.ipcalabs.com	15	13	10	14	15	16	03	15	08	14	15	03	02	04	04	04	02	05	162	3 rd

Note: Bracket marks indicate the total marks under each criteria

GRAPH 3.2: Top Three Websites



The table 3.2 shows the results in tabular form followed by graphic representation. The following are the observations:

- Johnson and Johnson has secured overall 1st Rank because it secured highest marks in both general and special criteria. The information can be accessed in text or graphic version also. It secured less marks in R & D compared to other two sites. It secured highest marks in graphics and secured less marks in navigability as it takes loading time.
- Dr. Reddy's which secured 2nd rank is rich in navigability than Johnson and Johnson and good in other criteria than the Ipca.
- Ipca is comparatively secured highest marks in general criteria and lagged behind in special criteria.

4. Findings & Recommendations:

Empowerment due to technology and complexities of users' needs of interdisciplinary research have made it necessary that librarians have to filter and provide only that information which is reliable. Here is an attempt to evaluate websites of ten top ranking pharma industries.

The findings of the study are consolidated in the following section:

Three objectives are set before conducting the research. The corresponding findings are:

1. Web sites are evaluated based on both general and special criteria. The general criteria considered were Authority, Accuracy, Objectivity, Currency, Coverage, Content, Graphics, Ease of Use/Navigability, Use of Colour, Readability and Hyper Links. The special criteria considered for pharma industries were Investor Relation, Global Presence, R & D, Patented Products, Product and Service Range, Employee Desk and Career Opportunities.
2. Values were assigned to each criteria and the scores were standardized. This was necessary for unambiguous and consistent evaluation of selected sites (Table 2.2). Scoring system is explained in Table 2.1. Ten websites of pharma industries were evaluated.
3. The results were consolidated and the ranks were determined for all the ten selected pharma industry sites (Table 3.1). In addition to this objective – driven findings, many other offshoots of the results were found. (p. 13)

Conclusions

Organization's homepage website should provide links only to reliable sources. Even pharma colleges and other institutions of pharma should provide links to commercial pharma industries. It will not only give pharma research in progress, but also make the study more socially relevant. It will also help in identifying job opportunities. It will also help colleges to organize placement fairs etc.

Recommendations

This type of evaluation has to be done frequently because ranks may change. Similar studies can be done for international pharma industries etc. One can take up comparison and sites of two different countries or those manufacturing similar drugs i.e. for Blood Pressure (B.P.) or Diabetes etc.

Library services are moving from a collection-centered model to access-and-service-oriented model. New policies are emerging to uphold the need for shared and networked information landscape where today, information 'access' rules over 'ownership'. The diversity of library activities increasingly web-oriented in nature. New roles and alliances have empowered librarians in technological skills to be able to exploit the technology to its optimum. Web based information is becoming more dynamic and continuously changing. Therefore, its evaluation also need to be done more frequently. This study is one positive step in that direction.

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