

Product Marketing: The Future of pharmaceutical Industry with special reference to anti-ulcer drugs

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Abstract: The research paper focuses the benefits of product marketing techniques in Pharmaceutical Industry with reference to anti-ulcer drugs. This is an industry where a number of characteristics suggest the product matters.

This study comes up with pharmaceutical firms and their difficulty in bringing new drugs to market, with many challenges. Secondly, the Indian pharmaceutical industry is largely diversified into various spheres of activities from research and development to their marketing aspects. Thirdly, for firms it is necessary to establish and sustain a strong market presence by formulating best of product marketing strategies. Finally, this research establishes the attributes of a product which a customer is looking for.

Keywords: Pharmaceuticals, Product Marketing Strategy, Product Mix.

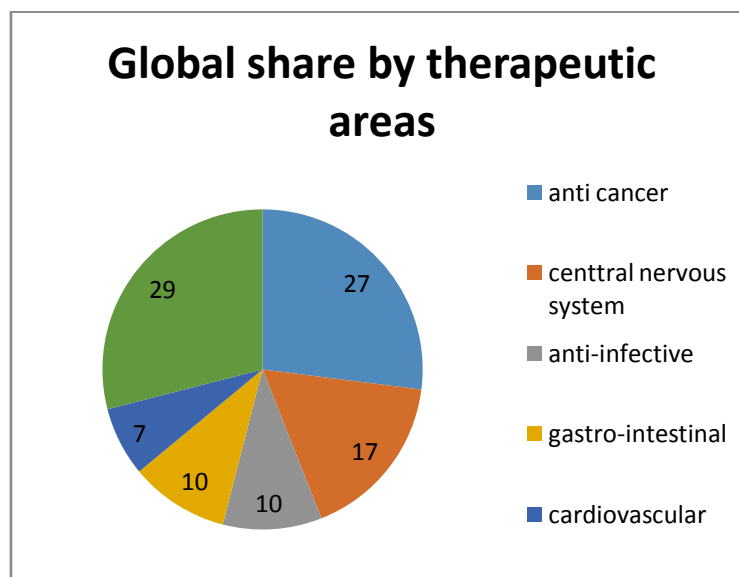
I. Literature Review

Pharmaceutical Market:

CCI (2014), reported that India has achieved an eminent global position in pharma sector. The Indian pharmaceuticals industry is highly organised worth of 4.5\$ billion with 9% growth rate in 2014 constitute nearly 70 to 80 per cent of branded generics.

The Indian Pharmaceuticals considered to be a highly fragmented industry, consolidation has increasingly become an important feature of the Indian pharmaceutical market. The Union Cabinet has given its approval for FDI up to 100 per cent under the automatic route for manufacturing of medical devices subject to specified conditions. The advantage in Indian market will be competent work force, rapid urbanisation, raising healthcare insurance, consolidation and so on.[1]

McKinsey (2015), reported global pharmaceutical sales depend on the ability of companies to align their product portfolio towards chronic therapies for diseases such as anti-cancers, central nervous system, anti-infective, gastro intestinal, cardio vascular and others are on the rise.[2]



Source: McKinsey analysis

Anti-Ulcer Drugs:

Dr. Rafi Abul Hasnath Siddique (2014) in the article "Prevalence of Peptic Ulcer Disease among the Patients with Abdominal Pain Attending the Department Of Medicine in Dhaka Medical College Hospital, Bangladesh" investigated a wide variety of patients with abdominal pain choosed them as subjects and recorded. Health care facilities in Dhaka Medical College Hospital were found to be highly adequate in providing affordable mass scale treatment of peptic ulcer disease with remarkable success rates. However, the socio-economic conditions and educational levels of the patients with the disease were found to be under par. In addition, the patients having a family history of the disease, stress, diabetes, hypertension and those who smoke were affected. These aspects including possible lack of awareness about the disease, its consequences and its available treatment options could be the main contributing elements in aggravating the burden of peptic ulcer disease in Bangladesh with a resultant higher prevalence compared to more developed nations.[3]

Vatsala Misra, Renu Pandey, Sri Prakash Misra, Manisha Dwivedi (2014)"Helicobacter pylori and gastric cancer: Indian enigma" investigated the incidence of gastric cancer in the Indian continent cannot be attributed to infection by H.pylori only, other factors such as diet, tobacco and socioeconomic status may also have a role.[4]

Marketing Strategies:

Anil Kalotra (2014) in his paper "Marketing strategies of different pharmaceutical companies" The article presents the changing marketing strategies of a pharmaceutical companies shifting from acute base to chronic therapy base.[5] Rizwan Raheem , Ahmed, Irfan Sattar and Vishnu Parmar(2014) in their paper "Product Strategies in Pharmaceutical Marketing: A Perspective of Pakistani Pharmaceutical Industry" discussed on new product development and product life cycle strategies.[6]

Objective of the study:

This study focuses on finding the important product related marketing factors. The research has been done to find out the expectation of doctors and pharmacists from anti-ulcer drugs.

Questionnaire

A questionnaire was developed based on the literature survey done as described earlier. The responses were analysed by 5-point Likert scale of “Strongly Disagree - Strongly Agree” (5 point scale).

Research Sample

The target sample is from doctors and pharmacists in the industry who, on a daily basis, prescribe drugs(anti-ulcer). The doctors and pharmacists were approached via medical representatives of the various Multinational national Companies . The target sample is that the population consists of various specialities of doctor as general surgeon, general medicine and gastro etiologist etc.

Data Collection

The questionnaire was provided to the research sample and received after as it is a paper-based survey. The respondent’s responses were collected and entered in a spreadsheet and uploaded into SPSS tool. The questionnaire had a covering letter introducing and explaining the purpose of the research. The data collected from 110 valid responses have been analyzed through SPSS 17

Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.766	13

Item Statistics			
	Mean	Std. Deviation	N
The Quality of ingredient that costs more	4.07	.709	70
Quality of ingredient recommended by medical research organization	4.21	.587	70
Product name related to molecule	4.39	.644	70
Product name related to disease	3.69	.910	70
Product name related to organization	3.63	.981	70
Brand image	4.34	.883	70
Ease of Administration	4.61	.597	70
Time for onset of Action	4.47	.717	70
Frequency of Administration	4.36	.682	70
Shelf Life	3.73	1.062	70
Drug Side Effects	3.93	.906	70
Drug Interactions	4.04	.824	70
Clinical Trials	4.20	.987	70

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
53.67	29.905	5.469	13

Inference: Cronbach’s alpha has been run for to check their reliability. The above table displays some of the results obtained. The overall alpha for the all items is 0.766, which is very high and indicates strong internal consistency among the given items.

II. Result Analysis

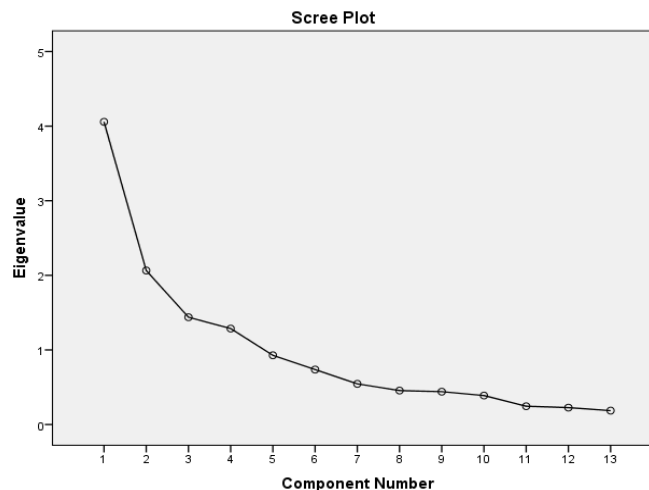
We have used the method Principal Component analysis. After applying the same on the data collected from the respondents we got results which are presented in tabular format as shown below.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.736
Bartlett's Test of Sphericity	Approx. Chi-Square	342.528
	df	78
	Sig.	.000

Factor Analysis is a data reduction technique. It also helps in structure detection among the variables and further helps in studying the underlying crucial factors that cause the maximum variation. Before we proceed for factor analysis first the researcher tested the eligibility of the data by checking KMO- Bartlett's test which is a measure of sampling adequacy. The KMO value is 0.736 >0.5(indicates meritorious). Bartlett's Test of Sphericity indicates a measure of the multivariate normality of set of variables (Sig. value is less than 0.05 indicates multivariate normal and acceptable for factor analysis.

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.057	31.210	31.210	4.057	31.210	31.210	2.977	22.900	22.900
2	2.065	15.883	47.093	2.065	15.883	47.093	2.763	21.253	44.153
3	1.439	11.067	58.160	1.439	11.067	58.160	1.673	12.870	57.023
4	1.287	9.896	68.056	1.287	9.896	68.056	1.434	11.033	68.056
5	.928	7.138	75.194						
6	.736	5.665	80.859						
7	.545	4.194	85.052						
8	.455	3.503	88.555						
9	.441	3.389	91.944						
10	.389	2.990	94.934						
11	.245	1.887	96.821						
12	.227	1.744	98.565						
13	.187	1.435	100.000						

Extraction Method: Principal Component Analysis.



Component Matrix ^a				
	Component			
	1	2	3	4
The Quality of ingredient that costs more	.482	.188	-.457	.303
Quality of ingredient recommended by medical research organization	.402	-.452	.135	.251
Product name related to molecule	.485	-.540	-.216	.089
Product name related to disease	.254	.225	-.702	.447
Product name related to organization	-.003	.477	.423	.611
Brand image	.413	-.191	.608	.455
Ease of Administration	.725	-.457	.090	-.099
Time for onset of Action	.801	-.400	.104	-.056
Frequency of Administration	.855	.083	-.148	-.066
Shelf Life	.653	.188	-.077	-.293
Drug Side Effects	.561	.479	.240	-.393
Drug Interactions	.554	.598	.136	-.202
Clinical Trials	.497	.471	.035	.215
Extraction Method: Principal Component Analysis.				
a. 4 components extracted.				

Rotated Component Matrix ^a				
	Component			
	1	2	3	4
The Quality of ingredient that costs more	.178	.224	.697	.044
Quality of ingredient recommended by medical research organization	.640	-.092	.032	.168
Product name related to molecule	.702	-.069	.226	-.182
Product name related to disease	-.016	-.006	.898	-.010
Product name related to organization	-.227	.069	.098	.845
Brand image	.537	.050	-.162	.683
Ease of Administration	.820	.269	-.013	-.087
Time for onset of Action	.838	.335	.033	-.023
Frequency of Administration	.501	.620	.358	-.036
Shelf Life	.271	.660	.153	-.145
Drug Side Effects	.025	.862	-.098	.052
Drug Interactions	-.055	.826	.105	.163
Clinical Trials	.031	.514	.346	.363
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

The PRINCIPAL COMPONENT MATRIX gives the component matrix which is rotated using the VARIMAX rotation technique which gives the ROTATED COMPONENT MATRIX. Rotation of factors helps in the better interpretation of factors. Since the first factor in the ROTATED COMPONENT MATRIX is heavily loaded with the Product name related to molecule. Factor loading Values of 0.702. This is the highest in the first column of rotated component matrix. The first factor represents Product name related to molecule.

The second factor is heavily loaded with Drug Side Effects (0.862) and thus the subsequent factors can be interpreted based on their factor loading values. The final list of 04 factors which collectively account for 68.05 % of the variance in the data is shown below

S.NO	FACTOR NAME	FACTOR LOADING VALUE
1	Product name related to molecule	0.702
2	Drug Side Effects	0.862
3	Product name related to disease	0.898
4	Product name related to organization	0.845

III. Conclusion

The results are giving the important attributes which doctors and pharmacists looking for. Attributes like Product name related to molecule, Drug Side Effects, Product name related to disease, Product name related to organization comes out to be important one in prescribing drugs to patients with reference to anti-ulcer drugs. Pharmaceutical companies are giving lot of efforts in making good medicine. If they give some more focused approach on other products attributes this will be helpful to the doctors, pharmacists and so to the pharmaceutical companies also.

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