



## Social Media Performance Analytics of CNX Pharma Stocks

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### ABSTRACT

Social media has become an inevitable medium to understand the consumer sentiments about a brand for effective Business to Consumer (B2C) marketing. The growth of the Pharmaceutical market in India is increasing day by day with increase in the product lines. Introduction of personal care and healthcare products by these companies like soaps, Hand wash liquid etc. enhances their product portfolio. In order to position their product in such markets, it is significant for these companies to understand the behavior of the consumer and their sentiments. The paper deals with the performance of pharma companies face book page and the patterns found among the scores derived from various sources.

**Keywords:** Social media, Consumer sentiments, Brand awareness, Pharmaceutical market.

### INTRODUCTION

With increasing healthcare costs, the pharma sector is gaining importance day by day. Nowadays consumers are becoming aware to analyze the composition of the medicine prescribed by the doctor. Generic medicines are sold by various companies under different brand names. These medicines are available from low to high prices. Gaining the trust of the brand and enhancing the familiarity of the brand becomes important to sell the products at a premium price. It becomes inevitable for the pharma companies to promote their brands in the social media, which is emerging as a new space for discussion among the various consumers. This paper deals with the analysis of performance of facebook pages by pharma companies listed under CNX pharma and to understand the pattern along with the share prices.

### Literature Review

Social media has found a wide range of application right from information sharing to e-governance and Anti-corruption tool. The growth of the social media is phenomenal<sup>9</sup>. It is becoming a medium for Brand Awareness and Word of Mouth among the consumers and there is a higher ROI with minimum investment. Social media is the playground for viral marketing enthusiasts<sup>2</sup>. Social Media had been an excellent Backchannel Communication channel and serves as a support during disasters like Storms, floods etc. Thus social media support the influence of existing public side information production and distribution<sup>10</sup>. Social media like blogs creates an impact on the music sales when the album is sampled and shared<sup>13</sup>. Twitter tweets have been a main tool for the increase in the earned audience for the television programs. This in turn has raised the sponsorship for such television programs and acts as a

catalyst for revenue generation<sup>11</sup>. Organisations have started exploiting the social media for their recruitment and the social influence scores like klout and kred scores have started gaining importance<sup>8</sup>. Social Media has served the purpose of knowledge creation and sharing since its evolution. If followed with professional etiquettes, it becomes a responsible platform for information distribution<sup>7</sup>. Social media helps consumers in making informed decisions as it provides various reviews and recommendation about product and services<sup>1</sup>. Consumers are motivated to participate in e-Word of Mouth in the social media and potential for consumer engagement is enormous<sup>5</sup>. Social media reveals the General Brand Impression (GBI) which is an important component in building brand sentiments<sup>3</sup>. Social media is finding its application in healthcare recently<sup>4</sup>.

### Methodology

The CNX pharma Index stock details were collected from moneycontrol.com. Face book page analytics were extracted using Fan Page Karma Website. By performing search using the facebook page of the pharma company on Google Search Engine, the top rated result is considered to be the facebook page and the Link is fed into the Fan Page Karma tool. SPSS is used for the Analysis of the extracted data.

### Analysis and Interpretation

When a Face book page is fed in the search toolbar of the Fan page Karma Website, it returns the following values.

### PPI

The Page Performance Index (PPI) is a combination of engagement and growth. It combines both figures to provide an estimate value for a pages success and is based on the average growth and engagement values of



all pages in our index. The PPI will be set to 100%, if a page is part of the top 10%, so 90% of the pages we are monitoring have less engagement and growth. Afterwards the engagement and growth are multiplied, the square root is extracted and the values scaled to 100 to present the top end.

**Example**

Page A has an average Growth rate of 3% and an Engagement rate of 0.2%. Both values are better than 90% of all pages in our index, which produces “temporary” values of 100% Growth and 100% Engagement. These temporary stand-in values multiplied equals 10,000 (100\*100), the square root of 10,000 again is 100, which results in 100% PPI.

**Table 1:** Page Performance Index of CNX Pharma Stocks

Company Name	Page Performance Index
Aurobindo Pharma	4.0%
Cadila Health	4.0%
Cipla	4.0%
Divis Labs	4.0%
Dr Reddys Labs	4.0%
GlaxoSmithKline	24.0%
Glenmark	3.0%
Lupin	26.0%
Piramal Enter	30.0%
Sun Pharma	5.0%

From the above table, it is evident that GSK, Piramal enterprises and Lupin pharma have a higher page performance.

**Number of Fans**

It refers to the total number of audience who liked a particular facebook page.

**Table 2:** Number of Fans of CNX Pharma Stocks

Company Name	Number of fans
Aurobindo Pharma	4898
Cadila Health	2219
Cipla	5573
Divis Labs	108
Dr Reddys Labs	3464
GlaxoSmithKline	160161
Glenmark	4234
Lupin	4857
Piramal Enter	4524
Sun Pharma	10673

From the above table it is evident that, GSK, Sun pharma have higher fans while Divis Labs have lowest number of fans.

**Growth Rate**

The growth rate tells you the average weekly growth of a Face book page. It does this by answering the question “How much had the page to grow in a week on average to get from value 1 to value 2?”

That makes sense, because it gives you a more “stable” impression about your growth without being too vulnerable to sudden spikes or extreme differences.

**Example**

Page A has 2000 fans, when two weeks ago it only had 500. Just the difference is 1500 fans or 300% of the starting value of 500. The calculation of the average weekly growth rate “only” equals to 100%: The page grew by 100% in the first week, which is 500 fans: 500 fans + 500 fans = 1000 fans. For the second week it’s another 100%: 1000 fans + 1000 fans = 2000 fans.

**Table 3:** Average Weekly Growth of CNX Pharma Stocks

Company Name	Average Weekly Growth
Aurobindo Pharma	5747.21%
Cadila Health	0.41%
Cipla	0.72%
Divis Labs	1.97%
Dr Reddys Labs	0.56%
GlaxoSmithKline	2.4%
Glenmark	0.2%
Lupin	0.65%
Piramal Enter	0.82%
Sun Pharma	88.47%

From the above table, it is evident that Aurobindo pharma has a highest Weekly growth rate and it seems to have started investing high in social media.

**Correlation Analysis**

H0: There is no significant relationship between share price and number of fans

H1: There is significant relationship between share price and number of fans

**Table 4:** Correlations

		Price	No_of_Fans
Price	Pearson Correlation	1	.463
	Sig. (2-tailed)		.178
	N	10	10
No_of_Fans	Pearson Correlation	.463	1
	Sig. (2-tailed)	.178	
	N	10	10

From the above table, we can find that there exists a medium positive relationship between the share price and the number of fans following the facebook page.



### Correlation Analysis

H0: There is no significant relationship between Page performance and Number of fans

H1: There is significant relationship between Page performance and Number of fans

**Table 5:** Correlations

		No_of_Fans	PPI
No_of_Fans	Pearson Correlation	1	.422
	Sig. (2-tailed)		.224
	N	10	10
PPI	Pearson Correlation	.422	1
	Sig. (2-tailed)	.224	
	N	10	10

We could find that the number of fans has a positive relationship on Page Performance Index for the CNX pharma stocks.

### CONCLUSION

From the findings, it is evident that pharma companies must invest in social media for their branding. They have to develop strategies to attract more visitors for their page and increase the number of fans. They have to improve their page performance by engaging their customers with attractive content thereby lot of audience like, share and comment their posts. As we have found a positive pattern for number of fans and share price, increasing fans in the social media is inevitable.

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