# LEVERAGING SOCIAL MEDIA ANALYTICS

# IN

# DEVELOPING COMPETITIVE INTELLIGENCE

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**Abstract**

Competitive intelligence plays a crucial role in defining the strategies of any company. Marketers have long been used the web to gather competitive intelligence. However, with the billions of users in the social networking sites, marketers can no longer afford to ignore the deluge of information generated every moment about themselves and their competitors. Especially after the advent of the advanced analytics, it's possible to precisely extract the desired information by dint of data mining and other sophisticated tools. The present paper highlights the different ways through which the corporate in the present era can exploit the social media to generate competitive intelligence.

**Key Words: Social Media Analytics, Competitive Intelligence**



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## Introduction

One of the important goals of marketing is to develop deep, long lasting relationships with all the stakeholders that could leave an impact on the success of the firm's marketing activities (Kotler and Keller, 2012). Since the exponentially growing popularity of social media like Facebook, MySpace, MeetUp, LinkedIn and Twitter cannot be ignored in satisfying the objectives of creating and maintaining relationships, marketers have also started exploiting social networking sites for multiple objectives. Ehrlich and Carboni (2005) observes that social networking analysis is applicable to a vast range of business problems, for instance, knowledge management and collaboration; creation of innovative teams and facilitating post-merger integration; human resources functions like monitoring work force diversity, retention, leadership development; sales and marketing functions like tracking the adoption of new products, ideas and technologies; and last but not the least, industry ecosystem analysis which includes gathering competitive intelligence. With the deluge of information available after the tsunami of social networking sites, competitive intelligence (CI) needs to be congregated through appropriate metrics, applications and analytics to achieve hegemony. The objective of CI is to systematically, timely and ethically gather a wide range of information about the products, policies, customers, suppliers and other related aspects about the competitor and then analyze the information to provide a complete understanding of the competitor's strength, weakness, position and performance which will ultimately develop deep insight for the decision makers. Bill Hoffman explores the various facets of effective CI which includes monitoring the competition, understanding its goals, strategy, and tactics; anticipating its actions and understanding the expected impact of those actions and lastly implementing counter strategies (Exhibit 1)

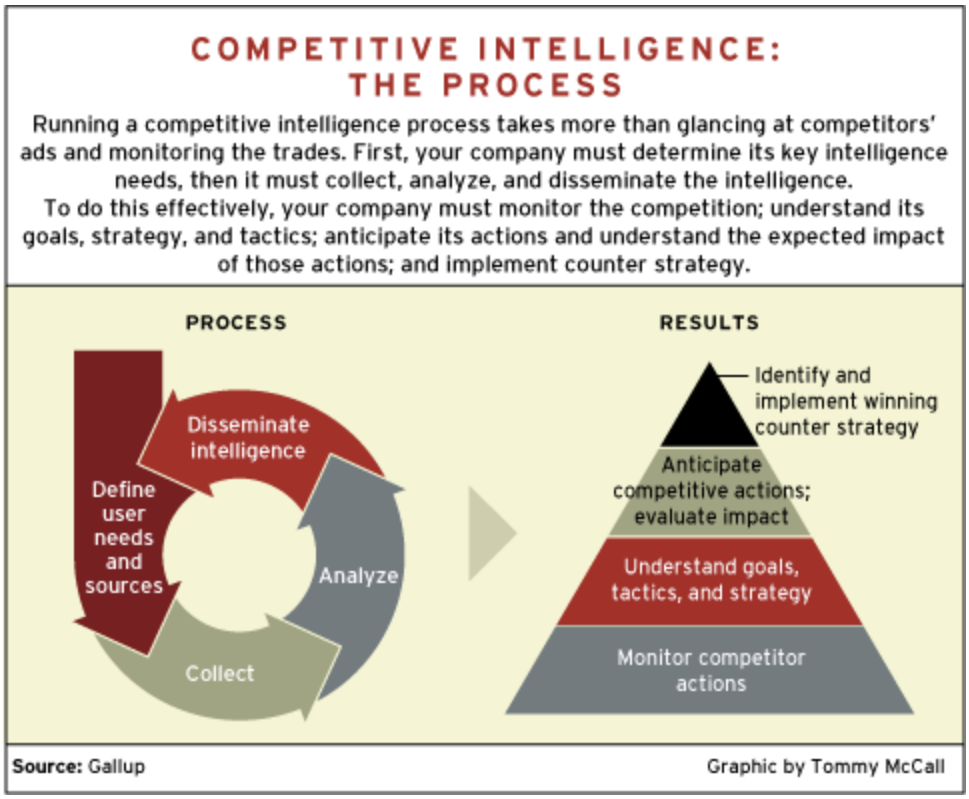


Exhibit 1: Competitive Intelligence: The Process

Focusing on the science and art of collection of competitors' current information, open source intelligence (OSINT) has long been used for the purposes of scanning, finding, gathering, exploitation, validation, analysis, and sharing with intelligence-seeking clients of publicly available print and digital/electronic data from unclassified, non-secret, and grey literature sources (Fleisher, 2008).

Kaplan and Haenlein (2010) define social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content." Suter, Alexander, & Kaplan (2005) observe social software as a tool for augmenting human social and collaborative abilities and as a medium for facilitating social connection and information interchange. O'Reilly (2006) defines Web 2.0 as

"the business revolution in the computer industry caused by the move to the internet as platform, and an attempt to understand the rules for success on that new platform. Chief among those rules is this: Build applications that harness network effects to get better the more people use them".

With the advent of social networks like *MySpace* and *FaceBook* and business networks like *LinkedIn*, expanding sources of information, including employees, current and former executives and others who have valuable insight regarding a company's information are accessible (Bose, 2008). Facebook was founded by Mark Zuckerberg in February 2004, originally for connecting the students of Harvard College, where users can populate their own profile page with personal information and build up a set of friends (Hopkins, 2012). Dekay (2012) observed that on the wall of a Facebook page, corporations generally post five types of entries, or discussion threads:

(1) Direct marketing of products or services;

(2) Promotion of sponsored events;

(3) Surveys;

(4) Informational announcements; and

(5) "Fun" postings, usually in the form of questions related to recent or upcoming events.

The present paper explores the ways through which the data from these five forms of entries in Facebook could be analyzed to gather competitive intelligence.

**Research Objective**

The objective or aim of this paper is to identify the different metrics and analytics which are applied to generate competitive intelligence from social media.

## Contribution of the Study

Web analytics is heavily used for tracking competitive intelligence. Similarly, social media analytics is also used by the organizations to measure their ROI in social media. But, social media analytics as a competitive intelligence tool is yet to gain currency among the corporate fraternity. This paper shows the avenues to the corporate world about how they can exploit social media analytics to develop competitive intelligence.

## Literature Review

### Competitive Intelligence and Web Analytics

Web analytics was utilized to generate competitive intelligence long before the advent of social media and its associated analytics. Ong, Tan, Ng, Pan and Li (2001) described the use of an application code named FOCI (Flexible Organizer for Competitive Intelligence) which helps in gathering, organizing, tracking and dissemination of the information about the competitors by using text mining techniques. Digimind provides seven main criteria and three related criteria to choose the right CI software. The seven main criteria are sourcing, collection, monitoring, process and analysis, collaboration and capitalization, dissemination and project development. The three related criteria are security, consultancy and stability of the service provider. Compete.com provides website analytics for the competitors' websites by providing by delivering traffic and engagement metrics (Exhibit 2); demographic data; keyword and search metrics. The information provided by Compete.com helps in benchmarking and also information about the websites that the competitors are using to drive the web traffic.

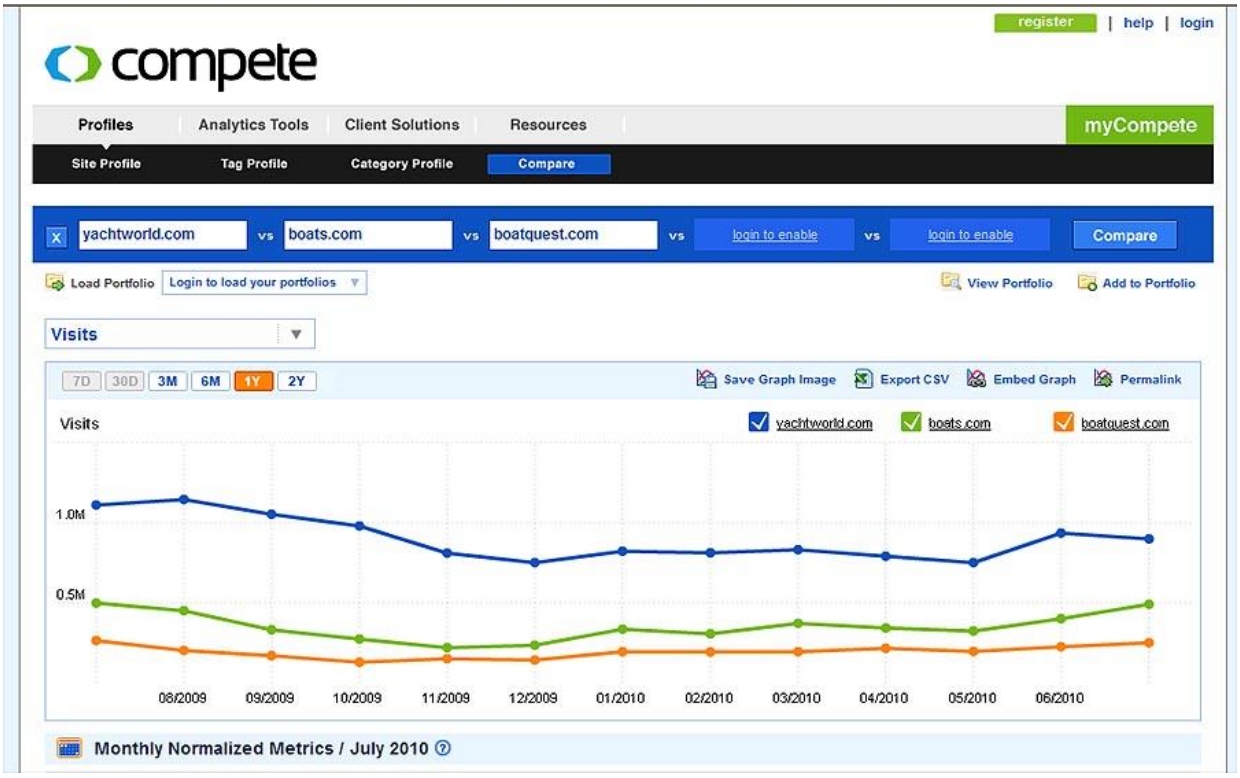


Exhibit 2: Traffic of competitor's website in compete.com

Nielsen.com also provides a wide range of sophisticated analytical tools to increase the competitive intelligence.

**Social Media Analytics without the Application of CI**

Social media analytics can largely be used to capture the return on investment in social media. However, Sutton (2011) observes that many marketers do not take full advantage of the available social media metrics. Facebook Marketing Solutions (Exhibit 3) provide distinct numbers for Total Likes, Friends of Fans, People Talking About This and Weekly Total Reach where Total Likes signify The number of unique people who like a Page, Friends of Fans shows the number of unique people who are friends with the fans, including the current fans, People Talking About This imply the number of unique people who have created a story about the page in the last seven days and Weekly Total Reach denotes the number of unique people who have seen any content associated with the page in the last seven days. It also provides an insight about the number of engaged users i.e. the number of unique people who have clicked anywhere on the post and virality the number of unique people who have created a story from the page post as a percentage of the number of unique people who have seen it.


Exhibit 3: Facebook Marketing Solutions

Facebook provides further options to extract the data in Excel file or CSV (comma separated value) file within a specified date range. Google analytics provides ten social media analytics applications like Sprout Social, Campalyst, Argyle Social, AddShoppers Social Analytics for Retail, SocialReport.com, Agencyplatform, Snip-n-Tag Firefox Add-on, Unilyzer, Social Commerce Insights (TM) and Actionly Social Media Monitoring which provides diverse utilities and benefits to the users. Through Sprout Social, it is possible to assess the impact of social media activities on the web traffic of the company's website. Campalyst helps in assessing ROI by tracking the customer engagement activities on the social media to the purchase by those customers. Argyle Social also helps in identifying the powerful social contents in generating conversion, revenues and ROI. AddShoppers Social Analytics for Retail helps in tracking revenue from a product and SKU level through social media. SocialReport.com can be used to track all the social accounts and blogs and is helpful for understanding conversion rates and semantic analysis. Agencyplatform helps in tracking and assessing the internet marketing campaigns. Snip-n-Tag Firefox Add-on helps in measuring web traffic from Twitter where as Unilyzer converts marketing data into meaningful information. Social Commerce Insights (TM) helps in measuring social commerce activities and Actionly Social Media Monitoring helps in assessing social media ROI. techcrunch.com provides the traffic summary by presenting the tweets and clicks graphically (Exhibit 4).

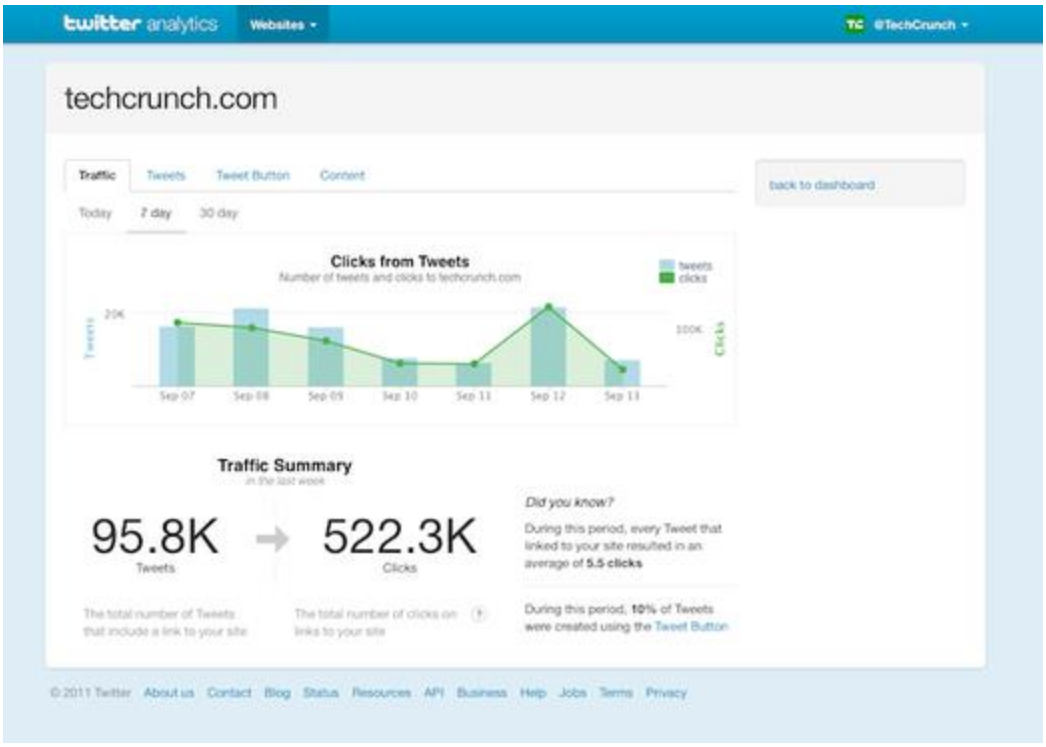


Exhibit 4: Traffic Summary in techcrunch.com

## Research Methodology

Cormode, Krishnamurthy and Willinger (2010) identified three methods to collect data from social networks. The first one is API (Application Programming Interface) provided by the OSN to query the entities, properties and relationships. The second one is scraping based where the measurer directly accesses the site via a web client. And the third one is Passive network measurement where the measurer understands network traffic 'and sifts out and parses requests to and from the OSN of interest'. In the present research, the metrics and analytics are congregated from the current practice across the industries which are applied to social media.

**Results and Discussion**

Hurd (2010) designs a flow chart of the procedures to be followed for generating competitive intelligence from the social media. He suggests that one should first start with defining the business problem and then create a competitive intelligence strategy which should detail the information required to collect the business problem and lastly developing the insight from the social media. Hurd (2011) further enlists the different type of information available about the competitors from the social media. The information comprises the details about competitors' clients, employees, vendors, projects, mega-trends that they want to monetize, clients view about the competitors, the key words that are sending traffic and revenue in the marketplace, social trends that connects with the sales process, the individual/ organizations work for the competitors and the information what the competitor have access to about one's organization i.e. counter competitive intelligence. SocialMention.com (http://socialmention.com/) provides daily email alerts about the competitor's activities and customer's feedback about the competitors in the social media. The metrics like *Share of Conversation* which is measured as *Posts discussing topic on your brand/ Posts discussing topic* can also be used to measure the competitor's popularity, when used cleverly by changing the numerator to *Posts discussing topic on competitor's brand*. LeBrun (2009) exhibits the *Share of Voice* of different competitors in social media (Exhibit 5), when a particular need or product is discussed.

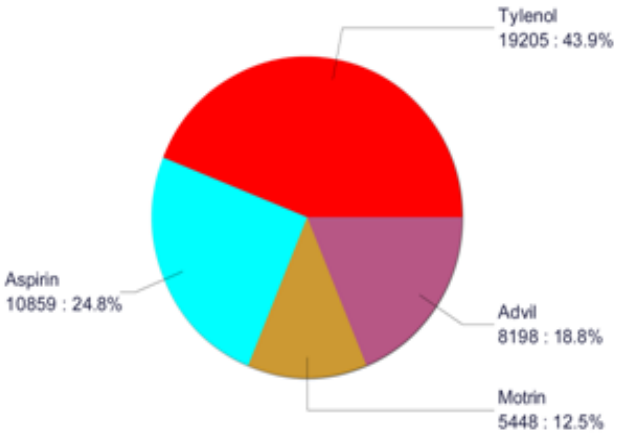


Exhibit 5: Share of Voice by Different Brands

Melin (2012) shows (Exhibit 6) the way it can further be customized by incorporating the time frame. This facility also makes it feasible to track whether the competitors' share of conversation is increasing or decreasing with time. Further research can be pursued to understand the reasons for sudden spikes and falls.

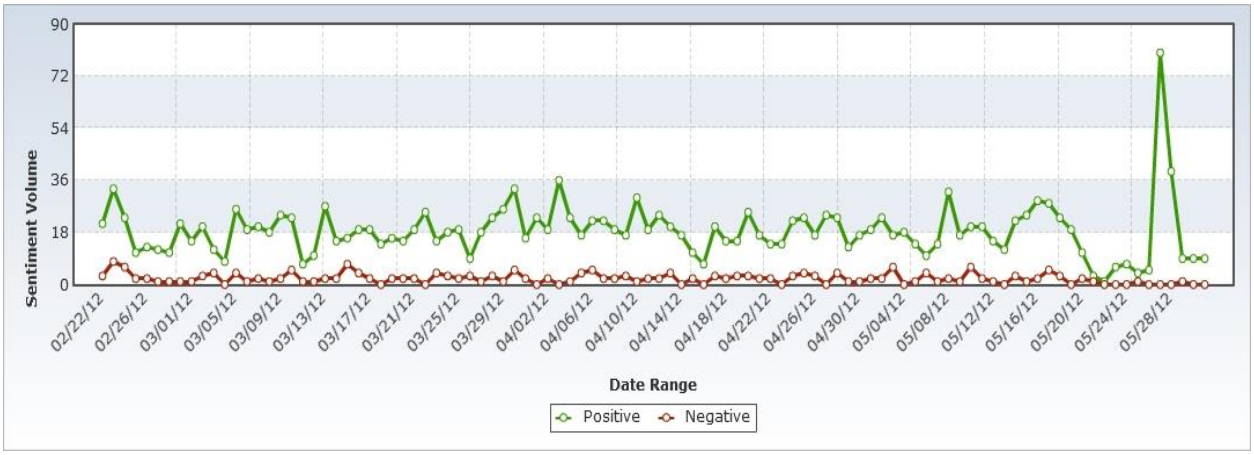


Exhibit 6: Volume or sentiment spike

[*Image from Spiral16 Social Research Platform as acknowledged by Melin (2012)*]

Melin (2012) further proposed to find out the website which the competitors are leveraging. Exhibit 7 explores the different types of websites used by the competitors.

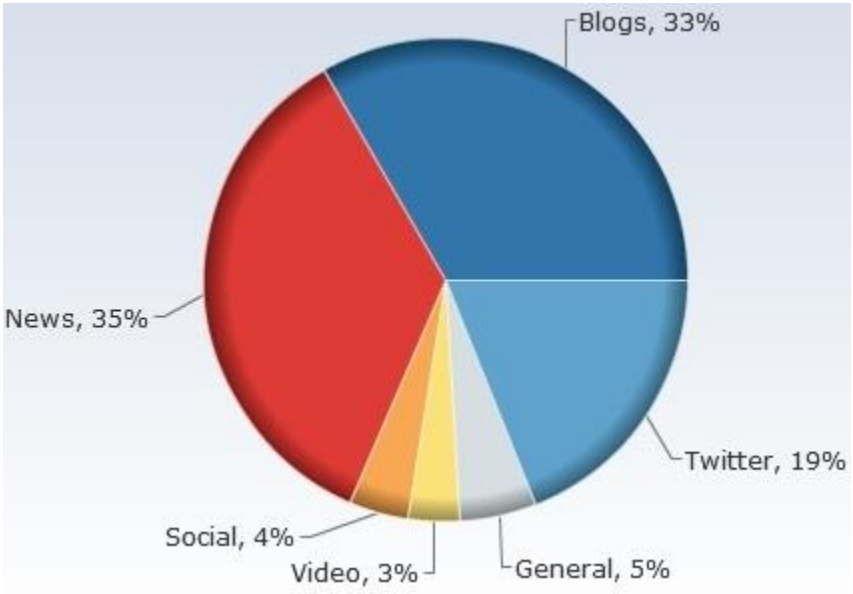


Exhibit 7: Site type the competitor is leveraging

[*Image from Spiral16 Social Research Platform as acknowledged by Melin (2012)*]

Melin (2012) identified the outreaching opportunities by exploring the posts about competitors which are found when the customers search about the product [Exhibit 8]. It is also possible to find out the author of such posts and approach them in the right context.

| | | |
|---|---|---|
| 1 | Nw | Social Marketing: Heading Toward Mainstream, but Uncertainties, Challenges Remain -- NEW YORK, Dec. 6, 2011 /PRNewswire/ -- |
| 2 | Bg | 6 Truths about Social Media and Social Business - Digital Influence Mapping Project |
| 3 | Bg | The State of Social Marketing 2012 - Brian Solis |
| 4 | Nw | Pivot and Solis Partner to Launch Spiral16 Web Monitoring Platform |
| 5 | Bg | Pivot Study Shows There's Life Outside of Facebook |
| 6 | Bg | The Social Network ? The Future of Social Media and Business: PivotCon Ideas & Links |
| 7 | Bg | The State of Social Marketing 2011 - 2012 \| Social Media Today |
| 8 | Bg | Charlene Li at Pivot Conference Oct 2011 |

Exhibit 8: Posts about the competitors

[*Image from Spiral16 Social Research Platform as acknowledged by Melin (2012)*]

Besides, it is easily possible to know from the posts about the individuals who are the loyal to the competitors, the demographic and economic profile of such customers and the reasons for their loyalty. It is also possible to know about the customers who are unhappy with the competitors' brand. Karanikas, Koundourakis, Kopanakis and Mavroudakis observes that text mining techniques helps in uncovering the implicit meaning of the conversations in the competitors' social media page by applying specialized data mining and Natural Language Processing (NLP) tools which ultimately help in Information Extraction (IE) for Competitive Intelligence. Software like Kapow helps in extracting and structuring data from the social media about the competitors even without the support of Application Programming Interface (API). Graham (2011) figured out the ways to measure one's social media presence, growth and influence relative to the competitors (Exhibit 9). He calculated several metrics of the competitors from social media like the monthly growth of the fans for different competitors across different social media networks,

the monthly tweet percent growth, the monthly follower percent growth, monthly view percent growth in YouTube, the fans in Face Book etc.

## Social Media Competitive Intelligence Snap Shot

| Jan-11 | Coca-Cola | Dr Pepper | Fanta | Pepsi | MountainDew |
|---|---|---|---|---|---|
| **Facebook** | | | | | |
| Fans | 22,209,744 | 7,742,017 | 252,686 | 3,260,865 | 4,138,717 |
| Fan Growth | 624,431 | 165,053 | 32,036 | 293,486 | 455,650 |
| Monthly % Fan Growth | 3% | 2% | 15% | 10% | 12% |
| **Twitter** | | | | | |
| Tweets | 21,732 | 4,345 | 0 | 2,230 | 4,406 |
| Monthly Tweets | 1,930 | 355 | 0 | 110 | 134 |
| Monthly Tweet % Growth | 10% | 9% | | 5% | 3% |
| Following | 65,427 | 20,331 | 0 | 39,242 | 30,745 |
| Followers | 195,719 | 31,366 | 0 | 55,156 | 33,003 |
| Follower Growth | 16,260 | 1,947 | 0 | 3,795 | 1,145 |
| Monthly % Follower Growth | 9% | 7% | | 7% | 4% |
| Listed | 9,726 | 1,076 | 0 | 2,737 | 844 |
| **Rankings** | | | | | |
| Twitaholic Follower Rank | 1,235 | 7,022 | 0 | 180,343 | 6,279 |
| RetweetRank | 8,784 | 31,141 | 0 | 11,832 | 60,013 |
| **Buzzom Stats** | | | | | |
| Influence Ratio | 96 | 85 | 0 | 84 | 70 |
| ReTweet Ratio | 24 | 45 | 0 | 40 | 2 |
| Tweet Efficiency | 97 | 96 | 0 | 100 | 96 |
| ReTweet Count | 86 | 69 | 0 | 26 | 1 |
| Followers Count | 100 | 100 | 0 | 100 | 100 |
| Overall | 81 | 79 | 0 | 70 | 54 |
| **YouTube** | | | | | |
| Channel Views | 4,465,732 | 484,803 | 151,643 | 1,026,210 | 958,303 |
| Total Upload Views | 12,857,258 | 1,813,978 | 467,945 | 7,967,937 | 1,107,937 |
| Monthly Views Growth | 1,114,812 | 55,369 | 564 | 246,190 | 136,675 |
| Monthly Views % Growth | 9% | 3% | 0% | 3% | 14% |
| Subscribers | 20,132 | 1,101 | n/a | 11,315 | 3,079 |
| Uploads* | 121 | 19 | n/a | 134 | 214 |

Exhibit 9: Social Media Competitive Intelligence Snapshot

Monitter.com (http://monitter.com/) helps to track a few key words in Twitter which helps the tracker to gain an insight on what the conversers are speaking about the competitors. Brandmixer.com reports about one's brand and the top competitors within a category. comScore Social Essentials also provides competitive intelligence from social media by highlighting quantifiable, comprehensible and actionable data on the size and audience composition of the social media, reach and frequency of exposures and brand engagement and intention to spend. SAS Social Media Analytics (Exhibit 10) also helps in generating competitive intelligence by developing an insight on how the competitors are perceived in social media. It analyzes the conversation data to recognize the sources and threats of organization reputation and brand image. It also incorporates predictive analytics to forecast the impact of future social media conversations on business results. The text analytics for social media helps in identifying the opinion leader about the competitors' brand and their impact on the conversation can also be assessed.

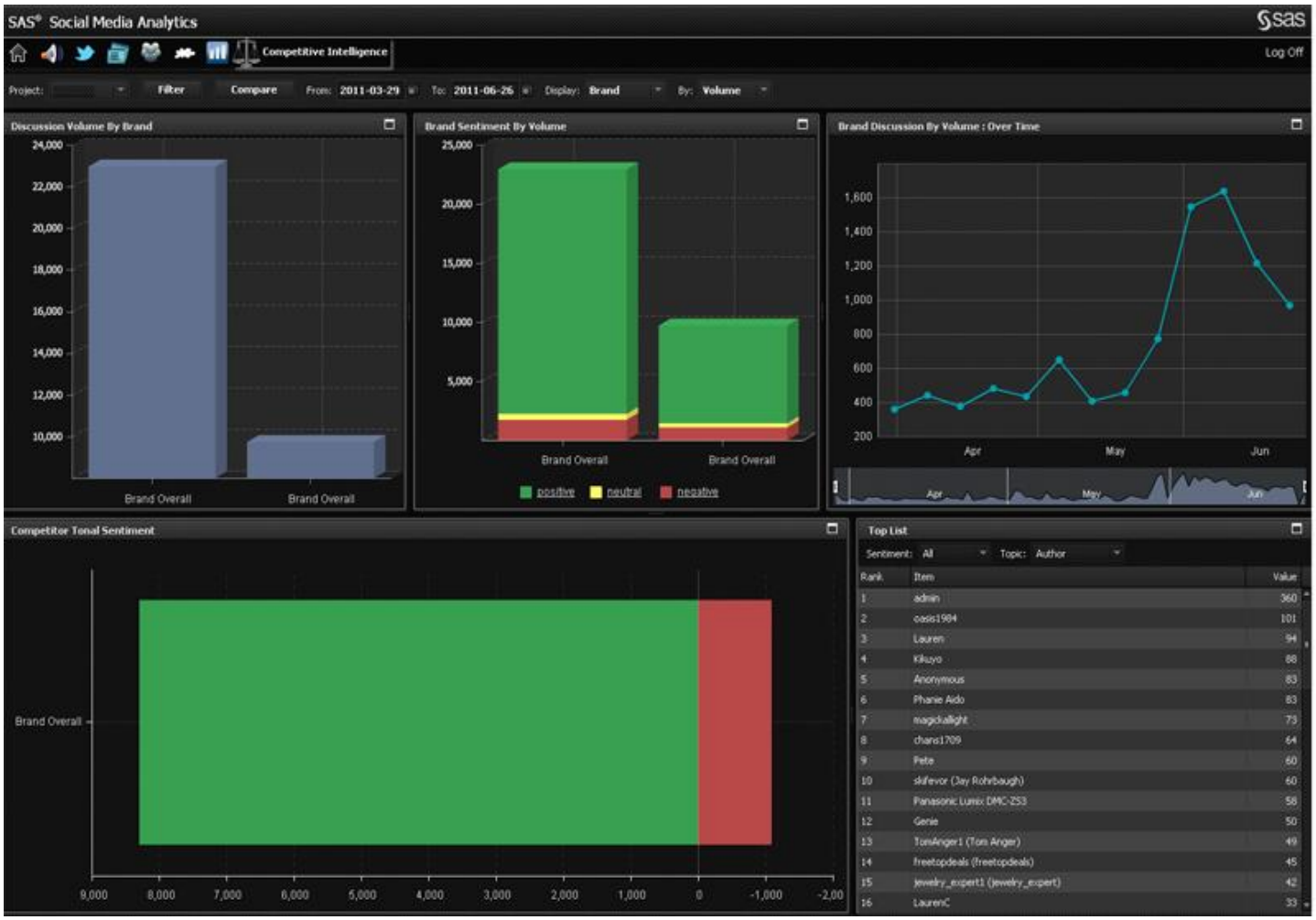


Exhibit 10: SAS Social Media Analytics

Customer engagement in the social media is the buzzing area in the marketing literature in the recent times. Customer engagement is defined as "behaviors [that] go beyond transactions, and may be specifically defined as a customer's behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers" (van Doorn et al., 2010). The S-O-R model suggests that the websites influence users' online experience and subsequently affects responses (i.e. intention to purchase) (Eroglu et al., 2003; Parboteeah et al., 2009). The application from simplymeasured.com provides the graphical presentation (Exhibit 11) of the 'Total Engagement' and 'Engagement as % of Fans' of the different competing brands in their respective Facebook page.

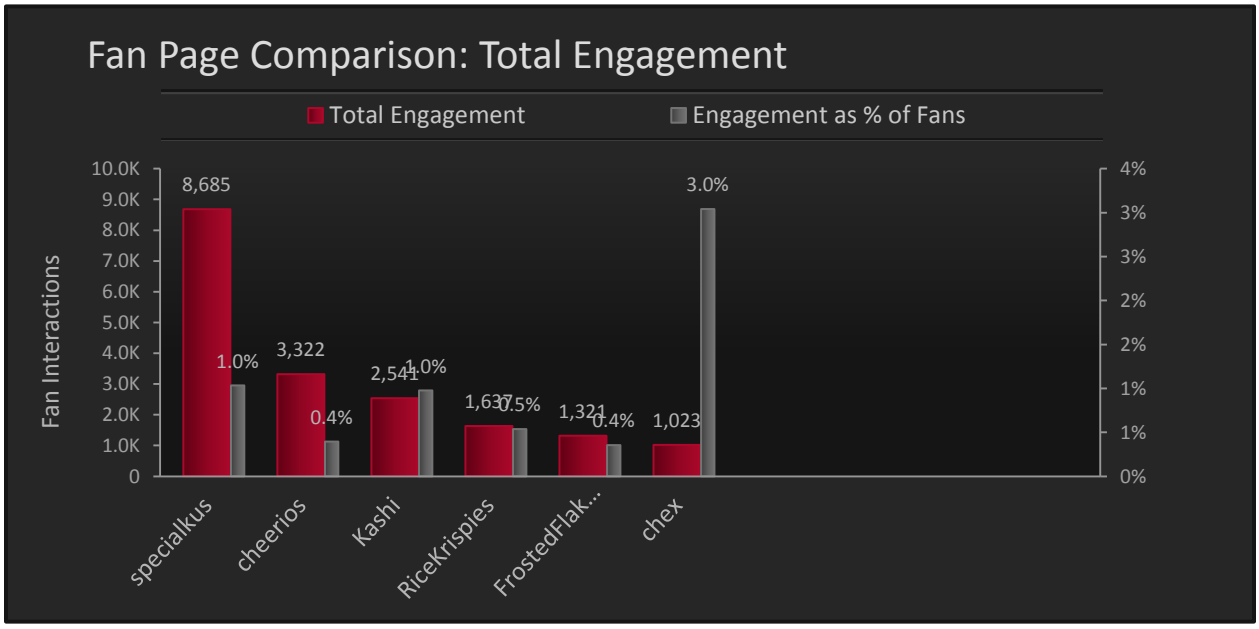


Exhibit 11: Fan Page Comparison: Total Engagement

[Image from https://app.simplymeasured.com/]

Baird and Parasnis (2011) observed that a company on Facebook can establish a rapport with existing and potential clients, post sales information, promotions, and new product announcements and promote those products with engaging drawings and giveaways. The application from simplymeasured.com shows (Exhibit 12) the relative share of engagement by the competing brands.

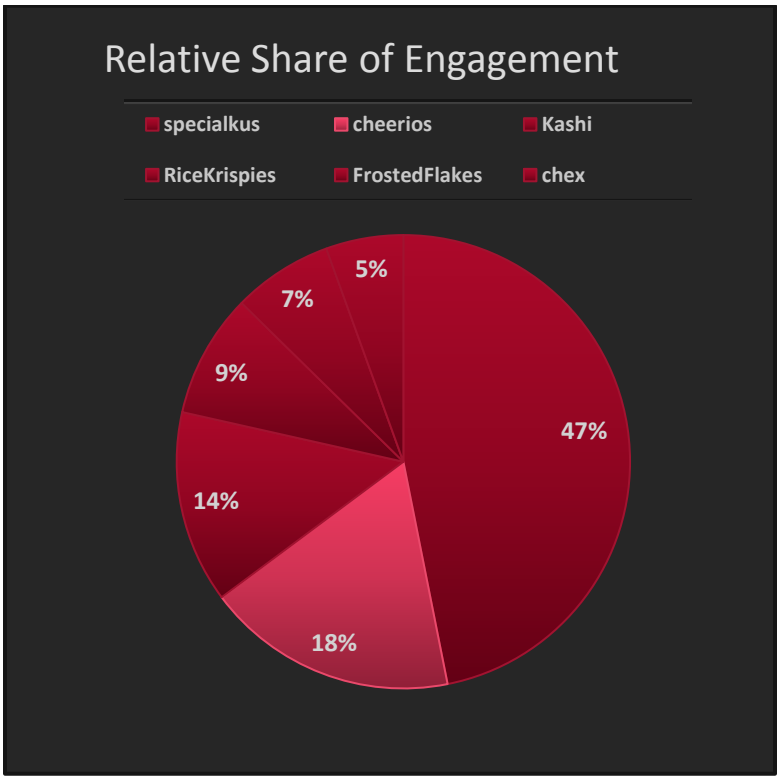


Exhibit 12: Relative Share of Engagement

[Image from https://app.simplymeasured.com/]

Fans resemble the followers of a particular brand who want them to be updated with the new arrivals and the latest schemes of that product. The total number of fans maintained by the competitors Facebook page are captured by the application from simplymeasured.com and is presented in Exhibit 13 shown below.

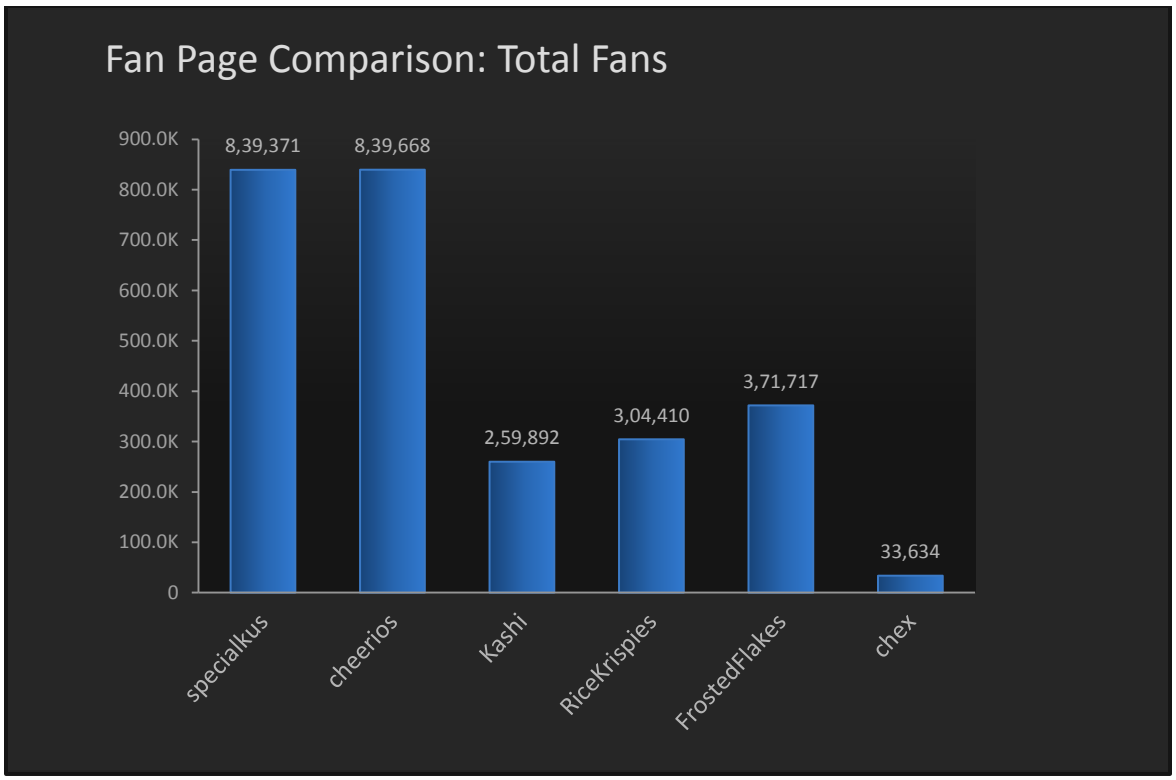


Exhibit 13: Fan Page Comparison: Total Fans

[Image from https://app.simplymeasured.com/]

The application from simplymeasured.com further captures the types of posts the fans create in the different competitor's page. It graphically presents (Exhibit 14) the constituent components of the posts like sharing of status, links, photos, videos etc. in the competitors' Facebook page.

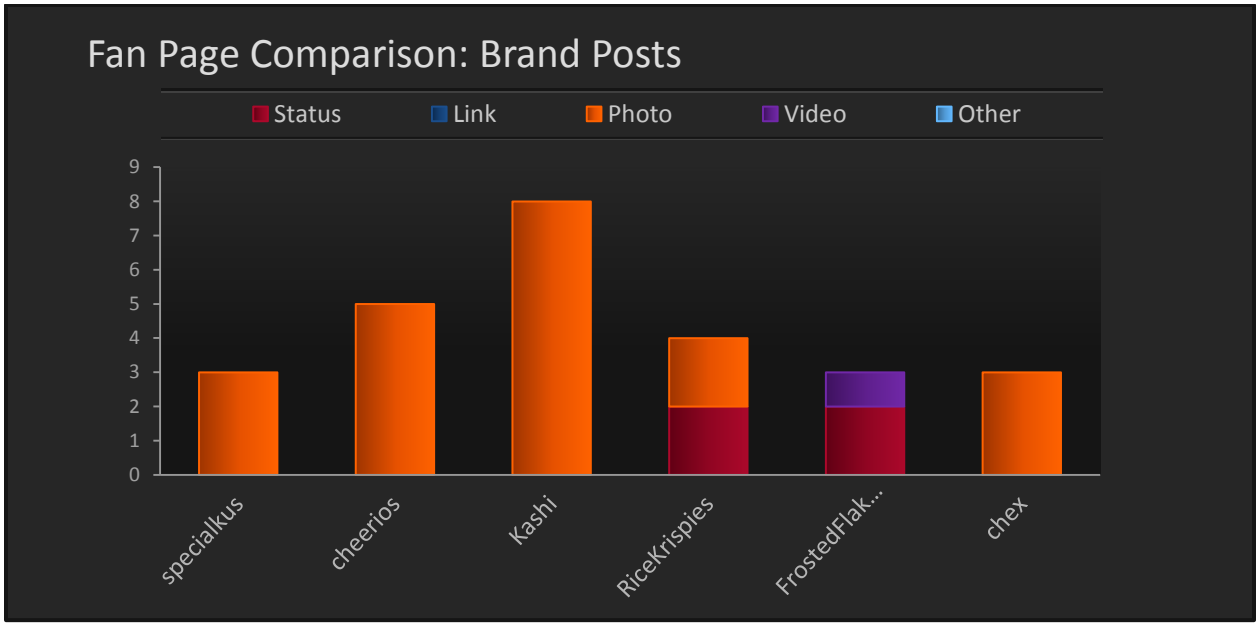


Exhibit 14: Fan Page Comparison: Brand Posts

[Image from https://app.simplymeasured.com/]

The application from simplymeasured.com also measures the average number of brand posts on the competitors' Facebook page and is shown in Exhibit 15 given below.

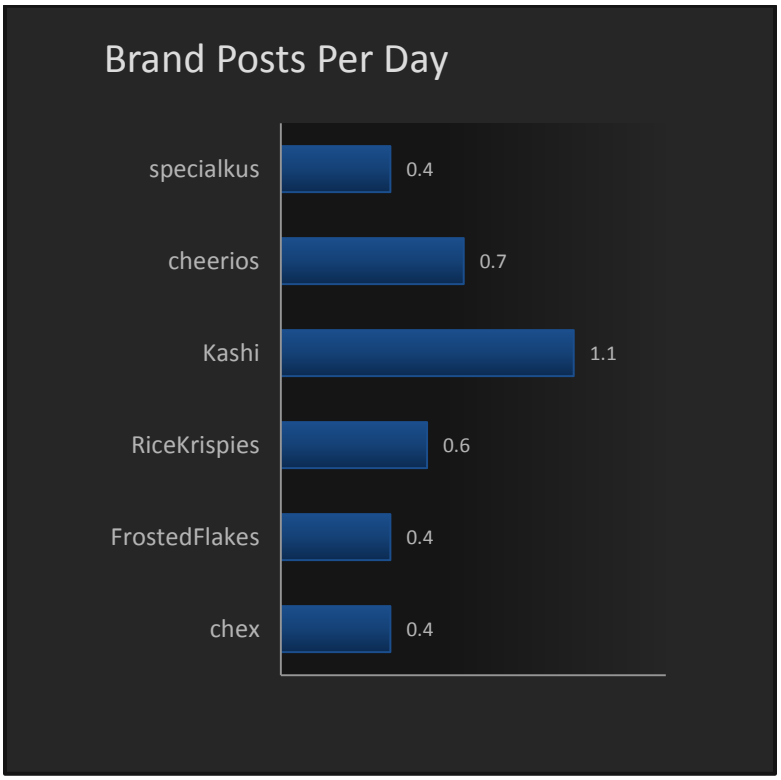


Exhibit 15: Brand Posts per Day

[Image from https://app.simplymeasured.com/]

The data are actually captured on a daily basis. So the exact impact of a new launch or a new scheme, or even a controversy can be tracked through the Fan Page Engagement Comparison over Time shown in Exhibit 16.

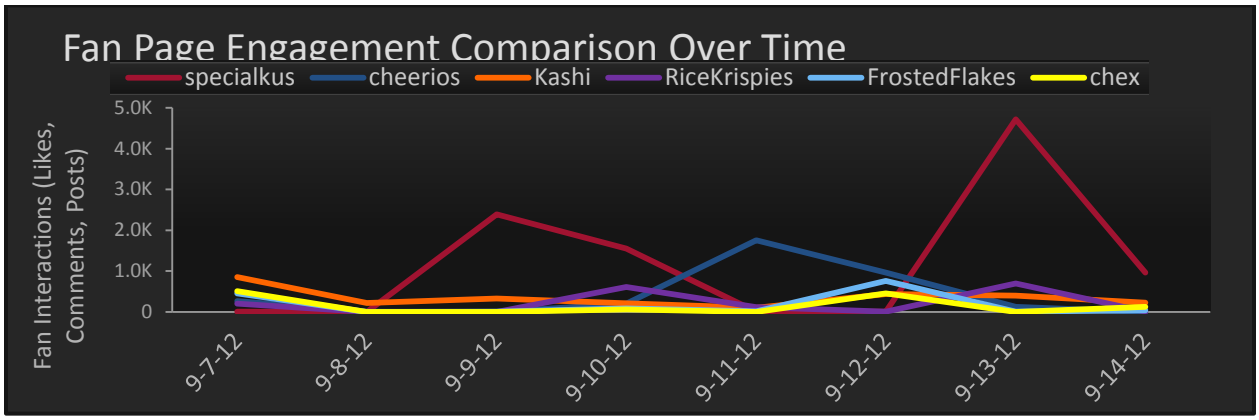


Exhibit 16: Fan Page Engagement Comparison over Time

[Image from https://app.simplymeasured.com/]

The engagement details like the Fan Likes, Fan Comments and the Fan Posts of the competing brands' Facebook page can be captured through the application from simplymeasured.com and is shown in Exhibit 17.

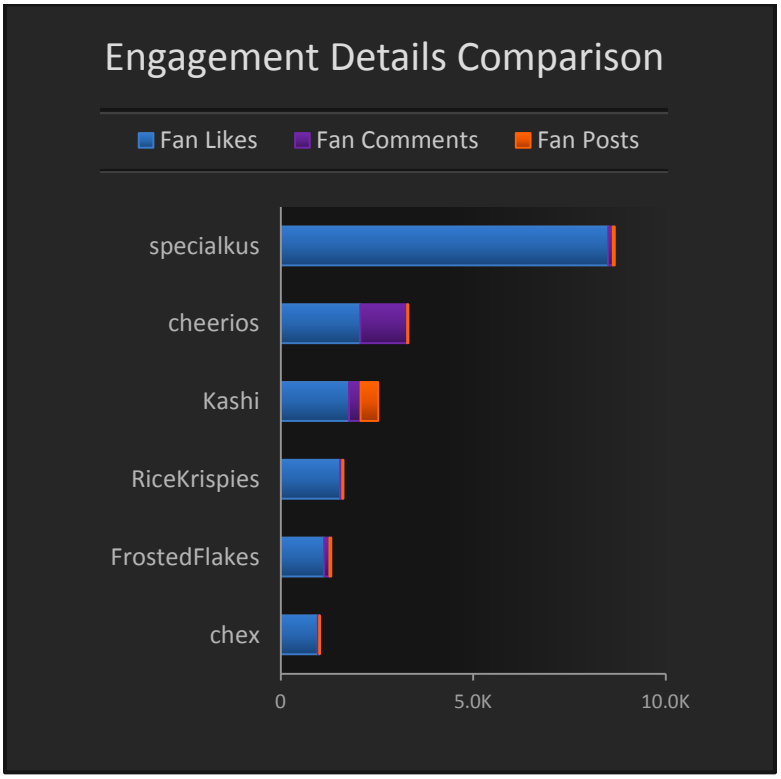


Exhibit 17: Engagement Details Comparison

[Image from https://app.simplymeasured.com/]

Besides the number of fans and their posts, the application also tracks the significance of those posts by the number of responses that those posts fetch. The responses captured by the application are in terms of Likes per Post, Comments per Post and Clicks per Post are shown in Exhibit 18.

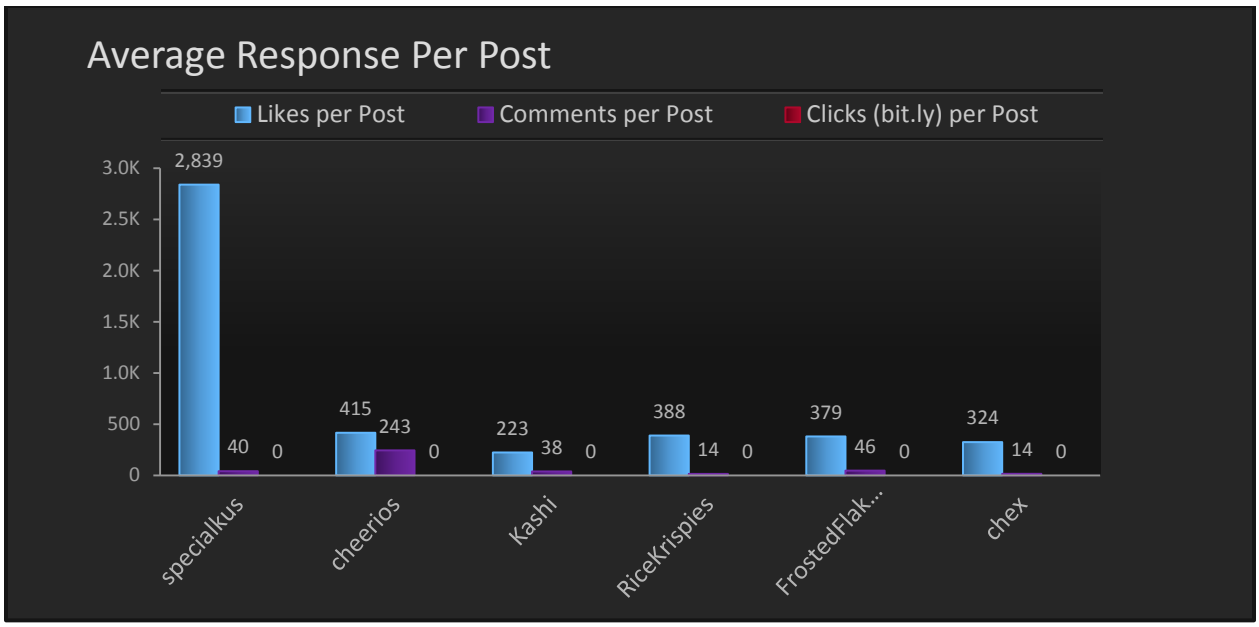


Exhibit 18: Average Response per Post

[Image from https://app.simplymeasured.com/]

Initially, the marketers in Facebook used to measure customer engagement through a number of metrics like ‘Likes’, ‘Active Users’, ‘Comments’ etc. However, in October, 2011 Facebook introduced the metric ‘People Talking About This’ (PTAT) to track customer engagement with a Facebook page. PTAT is a measure of the number of people who have created a story about the page. The Facebook Page Insights enlists that PTAT includes everyone who:

• Liked your Page

• Liked, commented on, or shared your Page post

• Answered a Question you’ve asked

• Responded to your event

• Mentioned your Page

• Tagged your Page in a photo

• Checked in or recommended your Place

From the last spring, Facebook also includes friends of fans who interact with a brand's post to account of the viral potential of the social network (Creamer, 2012). The PTAT score of the competing brands are shown in Exhibit 19 given below.

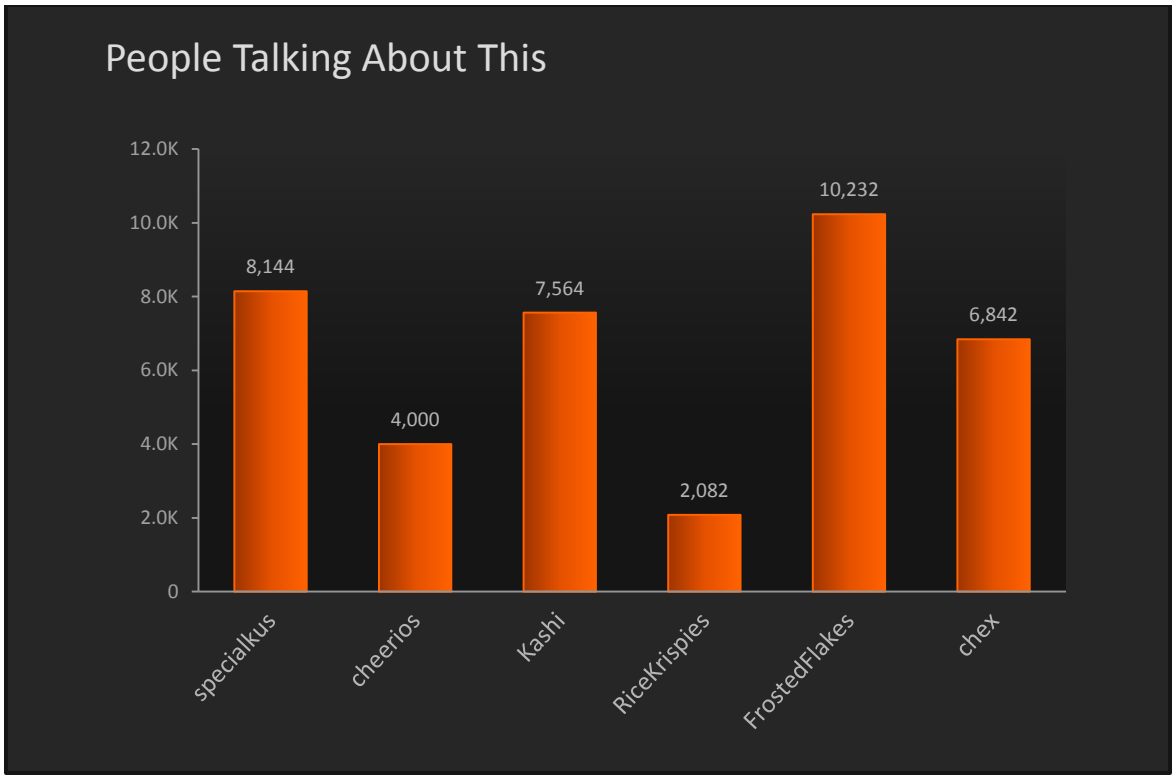


Exhibit 19: People Talking About This

[Image from https://app.simplymeasured.com/]

**Implications**

In the present era of mass craze and high level of involvement with the social networking sites like *FaceBook* and *Twitter*, no organization can afford to turn a blind eye to manage their presence in the social networking sites. This paper provides an insight to the marketers about the ways to track the competitive intelligence from the exponentially increasing and most easily available social networking sites.

## Conclusion

The paper presented the different metrics and analytics to gain an insight into the competitors' popularity and acceptance among the customers. It also helps to explore consumers' attitude and purchase intention of their brand vis-à-vis their competitors' through zettabytes of qualitative data as well.

## Limitation

The present research only prescribes the different metrics and analytics through which the competitive intelligence can be gathered from social networking sites and have not performed any analysis thereof.

## Future Research Possibilities

The future researchers can use the prescribed metrics and analytics to gather real time competitive intelligence for specific organizations. They can formulate strategic and tactical decisions based on those data after checking its reliability and validity.

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