USING ANALYTICS FOR UNDERSTANDING THE CONSUMER ONLINE

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Abstract:
To stay competitive companies need to understand the present consumer behavior and anticipate it for the future. As online businesses continue to grow and people spend more time on Internet, analytics services became essential in this new world of communication, globalization and localization. Web analytics provide invaluable insights into the behavior of visitors and consumers. The purpose of this paper is to analyze how the analytics data can be effectively used for understanding the present consumer behavior. The result shows that through the use of analytics a company can predict the future consumer behavior and tailor specific messages and promotions sent to each individual. Patterns and anomalies identified at this step can help improve overall understanding of business processes and web site content and design.

Key words: web analytics, consumer behavior, business online

JEL classification : C10, C40, C87, D01, L20

1. Introduction to Web Analytics

Many marketers know the inherent value of analytics insight for their business online. The analytics services help them to take smarter decision and understand how to strategize better their business. The online environment is complex. Analytics services offer comprehensive information of not how the advertising performs post-click, but also search and affiliate marketing, organic search performance and the myriad ways consumers find a site. That puts analytics services on the center of the action and enables marketers to manage information and performance and take more effective decisions.

The types of analytics specialized companies offer tend to be extremely sophisticated, and overlap among advertising, marketing, merchandising, and editorial department, as they provide intelligence across a broader swatch of initiatives than just advertising. Analytics are tools – not ends in themselves. They cannot tell why visitors behave the way they do or which improvement to be made. That needs hiring expertise, training existing staff, using the service of an external consultant, or a combination of all these (Clifton, 2010). Marketers have a wide selection of analytics vendors to choose from; however the differences between them tend to be slight (Plummer, Rappaport, Hall, Barocci, 2007). Analytics because of strong Google branding has come to mean to many only Google Analytics, but there are far more sources which an Online Marketing Manager need to be aware of (Wirtz, 2009). Yahoo purchased IndexTool in mid-2008, so they became analytics services provider, released at beginning only to the Yahoo customers. Omniture, recently acquired by Adobe, is a good example of a competitive vendor also. Their online marketing analytics and website optimization products provide extensible applications that connect easily with partner applications for a consolidated view of customer interactions (www.omniture.com). SiteCatalist, its flagship web analytics tool, is now one of its core offerings. Omniture provides also multivariate testing and behavior targeting solutions, offers website surveys, and it can power ecommerce services (Kaushik, 2009). Among the well-known analytics service

provides there are: Piwik, Clicky, Reinvigorate, Woopra, GoingUp, StatCounter, Spotplex, SiteMeter, TraceWatch, DaCounter, HiStats, Charbeat, VisitorVille, Analog, Grape, FireStats.

Web analytics is an important part in driving performance marketing (Burby, Atchison, Sterne, 2007). Generally the analytics services provide with real-time intelligence and helps monitor the effectiveness of the overall web strategy:

- Analyze where the website visitors come from, evaluate which sources send the most quality users and which traffic source delivers more returning customers;
- Monitor which are the most used keywords by prospects to search and find that website;
- Monitor number of inbound links, growth of inbound links from previous months
- Track what prospects and customers are doing on the website
- Measure the effectiveness of the overall web strategy by evaluating key matrix such as:
    - Average, daily, monthly number of pages prospects and customers view per visit
    - Average, daily, monthly amount of time prospects and customers spend per visit
    - Number of unique visitors
    - Percentage of one page in-and-out users
    - Most effective marketing channels for potential customers
- See which are the most popular conversions paths
- Analyze which online paid campaign provides a better ROI, revenue per page, and percent users generating revenues

Web Analytics Services offer a multitude of benefits to any business online. **Some of the most common benefits include**:

- *analyze and increase the sales*: the detailed website analysis helps marketers to identify which are the best ads designs and page layouts to increase the sales. They can use analytics data in many ways to optimize a sale channel and increase conversion.

- *track the website revenue*: analytics services generate comprehensive information used to keep complete the business picture in terms of revenue by customer category, revenue by channel, revenue by keyword, conversion rate, average order, loyalty and other important measurements.

- *identify exit pages and improve content*: the bounce rate is an important indicator connected to revenues and engagement of customers. Bounce rate is the percentage of entrances on the page that result in the visitor immediately leaving the site. To decrease its value marketers should identify the web pages and content from which most visitors are exiting the website.

-*track the content optimization and traffic:* once the marketer changes have taken effect these are visible in the analytical reports. These reports show which sources send most of the traffic and which keywords the visitors use to search those products and services.

- *know the customers and guide them*: the analytics service help understanding the needs, preferences and choices of the customer and enable marketer to guide them in a successful purchase direction.

- *identify current market demands*: the findings of analytics services reveal the latest industry trends and current market demands. Once the marketer knows what the customer is actually looking for at a certain point of time, he will be able to make additions and subtractions to the business offerings accordingly.

- *identify profitable markets*: the comprehensive reporting provides with full knowledge about potential target markets so marketer can improve the marketing strategies for further advantage.

- locate website errors and fix them before affecting the customer experience: having broken links on a site is bad news for user experience, site revenue and increase the bounce rate.

These analytics reports enable the decision makers to maximize the results:

- **Marketers** can determine if the marketing campaign was successful and by using priceless data, to find new and better solutions for future marketing programs. They can simplify processes to boost consumer response (Plummer, Rappaport, Hall, Barocci, 2007). They can analyze how the website converts more visitors into customers and which keywords are most used and lead to conversion (support.google.com).
- **Web designers and developers** can improve site navigation, content, and tools by using analysis. They can optimize specific website design that turns visitors away.
- **Executives** have access to key performance indicators, enabling real-time performance assessment. This tool can tell a manager which search words generate the most visits, or the highest rate of convergence. By using analytics executives can learn not just to make money from the website, but also to create the most amazing and timely experiences for the customers while creating a sustainable competitive advantage (Kaushik, 2007).

2. Using analytics to track the customer

Marketers personalize communication, offers and content to differentiate from the other competitors and to make customers feel unique and special. This strategy encourages customers to spend more time and money on Internet. Companies rely on various analytical methods to understand the consumer behavior and to increase their sales. The goal of any marketer is to offer customers with products and services they need and they look for. To do that, they need specific details about customers in general and sometimes it needs in-depth particularities about their behavior. All levels of the organization must develop a coherent and clear view of the customer as they engage across the business. Any company should make the customer analytics a core competency (Walker, Johnson, Evans, Ensor, Benson, Hoffman, Varon, 2011). According to Gartner, Inc. in *Innovation Insight: How Innovators Use Behavior Tracking to Master Influence While Avoiding Pitfalls* published on the 13th February 2012, the analyst Andrew Frank says that a behavior-informed intelligence and communications strategy will become the decisive competitive factor in a world governed by social influence. **The same source mentions that there are three categories of behavior data:**

- **first-party data:** collected from sources controlled by the company like CRM system, emailing campaigns, websites, mobile applications, ad server or Point of Sale;
- **second-party data**: obtained from another first parties, such an affiliate, payment processor or media partner;
- **third-party data** : accessed from a variety of public sources including dedicated behavior data aggregators, ad networks and data exchange operators, commercial data brokers, social networks, portals, marketing research firms, media companies, and communications service providers.

The analytical tools are essential to manage all these information. Meanwhile, customer learnt he is important and expect high quality experiences from their interactions with the companies. When done right, analytics is a win-win tool for both customer and companies. Like that customers benefit from better recognition and get suitable offers and experiences and companies benefit from increased customer satisfaction and realize significant returns. For example, Références.be, a well-known Belgian job web-site, tracks and analyzes the preferences of its users. They know exactly what kind of jobs

users look for. By email recommendations users are informed about jobs fitting their profile, names of companies that can be interested in their CV and even training courses suitable for their needs. Knowing the personal data, public and private, for each user, Facebook knows how to personalize the advertising and to increase their impact with the customers. Google understands exactly what are each customer needs and interests and personalizes their search and findings. At best, many companies track the impact of personalization on incremental conversion rates, higher sales. The next step for them is to account the impact of their personalized offer on customer satisfaction and retention degree.

The marketer goal is to build and create lasting relationship with the customer (Mohammed, Fisher, Jaworski, Paddison, 2003). Customer analytics enables marketers to discover the customer insight by tracking and analyzing demographical and geographical data, billing and usage of different paths. Having this data companies can predict the customer preferences and influence them to act in a certain way. These predictive models help identify patterns in customer data and enable marketers to make better plans for future. It is very hard and sometimes impossible to analyze each customer behavior and personalize each offer. To simplify the customers tracking companies creates "personas". In marketing "personas" are fictional characters created to represent the different user types within a targeted demographic, attitude and/or behavior set that might use a site, brand or product in a similar way. Marketers may use "personas" together with market segmentation, where the qualitative "personas" are constructed to be representative of specific segments. When exploring the data there can be found missing values, abnormal distributions or unique patterns. These can help marketer to discover real problems such as an issue with product delivery for a specific brand. In this case the abnormal behavior describes a real business problem rather than errors in the data entry. By exploring data through different techniques, patterns begin to emerge that may not have been immediately evident. For example, if a retail store has created four segments of consumer behavior for a particular store location, they may create better customer loyalty by optimizing their merchandise assortment specifically for identified segments of customers, each of which demonstrate similarity in purchasing behavior (Adams, 2008).

Predictive analysis solutions are delivered by using data mining technologies that use analytical models to discover hidden patterns and apply them to predict future trends and behaviors. Interest in predictive analysis within retail organizations is increasing. Customer analytics enable marketers to predict future performance sales on specific predefined variables and increase the potential of the business online. Rapid decision making will increase in speed and effectiveness in the future as tools and information become more easily accessible. Customer analytics and data visualization are becoming mainstream in the business online, providing tools to remain competitive. Managers can take better-informed decisions that are based directly on data. Most businesses online experience better customer satisfaction and retention, as well as an increased ability to complete targeted marketing and to create additional sales opportunities with existing customers.

3. Consolidating the business by using analytics services

As a case study, we'll be analyzing the analytics data collected by Google analytics for a publishing house in Belgium. The core business of this company is to design and produce standard and personalized calendars.

The company website is helping consolidate the brand and drive new orders.

We considered the collected data for the 2011:

2,874 Visits

2,244 Unique Visitors

7,212 Pageviews

2.51 Pages/Visit
00:01:25 Avg. Time on Site
45.58% Bounce Rate
76.37% - % New Visits
76.41% New Visitor (2,196 Visits)
23.59% Returning Visitor (678 Visits)
Total number of visitors viewing one page only is 1310.

First of all we can determine how many people were actually interested in the content of the website. One of the popular metric used for understanding this is the Bouncing Rate.

According to http://support.google.com/googleanalytics, bounce rate is the percentage of single-page visits or visits in which the person left the site from the entrance (landing) page. Use this metric to measure visit quality - a high bounce rate generally indicates that site entrance pages aren't relevant to your visitors. The more compelling the landing pages, the more visitors will stay on the site and convert. The marketer can minimize bounce rates by tailoring landing pages to each keyword.

While Bouncing Rate is a very simple and effective metric for getting an understanding of how many visitors are actually interested in the content of the web site and may be potentially turned into customers, we are also interested in the time that the visitors spent consuming the web site content.

The metrics shows there are 54.28% of viewers that stay less than 10 seconds. It's unlikely that these visits will generate any new customers.

We introduce a new formula to measure Visit Duration based Bounce Rate:

Visit Duration based Bounce Rate = 1560 / 2874 * 100 = 54.28%

This value indicates that more than half of the visitors are dropping not long after they land on the website. This may be caused by the fact that the content that they saw is not particularly relevant to what they may have expected to see. The marketer should target better the Ad Campaigns so like that only interested people will visit the web-sites.

The trafic for the website is generated by Search Traffic 83.29% (1,829 Visits), Direct Traffic 11.57% (254 Visits) and Referral Traffic 5.15% (113 Visits). From the total Search Traffic - 96,66% represents the traffic from Google. The Direct Traffic indicates that there are many customers that know exactly the name of the site and are interested in those products and services.

Other important metrics are Frequency and Recency data. It reflects the information about the visitors that are already customers or are likely to turn into customers. This company allocates increasing budgets to target potential customers and increase the convergence rate. There were 390 people interested in the publishing brand. That represents 13.97% from the total of all the visits.

Windows is still the most popular operating system for the web site customers with 64,20% from the total, and it is obvious that it starts getting some traffic coming from iPad, iPhone, iPod and Android Operating system. This may be an indication that the website may need to be optimized for the mobile screens as well.

Having a good Bounce rate the publishing house should retain the active customers by offering them special discounts when buying again. In the same time the company is preparing a contest "the best personalized calendar of the month", to engage the existing customers. Analyzing data we observed that the Bounce rate for the users coming from abroad is lower. The publishing house should translate the web-site in English and Dutch, so in this manner, more visitors can understand the content and become customers.

4. Conclusions

Every company needs to stay competitive by using analytics for understanding their customers. They need to adjust the content, design and advertisement to better serve their target personas. Despite the fact that there are multiple analytics solutions provider companies may need to be able to define their own metrics that may be best suited for understanding the evolution of the business.

With the Visit Duration Bounce Rate metric that we introduce it's possible to have a different perspective on the users that are not finding the information that they were seeking. This metric should be a measurement of the effectiveness of the web design usability and at the same time it is a good indicator for a paid advertisement campaign.

There are even more metrics that should be developed for a better understanding of the customer. Sometimes the analytics reports are not so comprehensive so it needs specialized consultancy to improve the business online and turn the visitors into consumers.

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