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This paper introduced an overview of Web analytic 2.0 and the BI tools that used to improve the marketing performance by attracting the target customers to their websites, BI tools used to help the managers in growing their business through different ways. This paper presents a background of this topic, in addition to the main problem that faces the new commercial. The purpose of this study is also existing here along with the Web analytic process methodology, including the way used to define the goals, metrics, gathering and analyzing the required data for this process. The study significance shows the effect of applying Web analytic 2.0 which offers the companies metrics schemes to measuring the digital marketing performance.

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Enhancing the Customer's Centricity through Web Analytics 2.0

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ABSTRACT

This paper introduced an overview of Web analytic 2.0 and the BI tools that used to improve the marketing performance by attracting the target customers to their websites, BI tools used to help the managers in growing their business through different ways. This paper presents a background of this topic, in addition to the main problem that faces the new commercial. The purpose of this study is also existing here along with the Web analytic process methodology, including the way used to define the goals, metrics, gathering and analyzing the required data for this process. The study significance shows the effect of applying Web analytic 2.0 which offers the companies metrics schemes to measuring the digital marketing performance.

Opportunity/Problem Statement

This study addresses the opportunity to define, identify, and attract targeted customers to the business 'website for increasing the revenue, business profitability, and business performance. Business Intelligence processes and tools can be used to this.

Purpose Statement

The purpose of the research is to: prove the use of BI in identifying the target customer profile, revisit the goals and recognize the metrics that support to measure the achievement of business channels. This process can be complete by using Web analytics 2.0 which offers organizations metrics systems to measure digital marketing performance. Web Analytic can be optimistic as the act of growing a website persuasions and relevancy to accomplish higher conversions rate.

The significance of the Study

In this study, BI has been used as a model to find the target measures, which affect the increase in the number of online customers and make business effectiveness. BI can be used to recognize the target customer and rise the number of users who are visiting the websites. Web analytics can give the managers a good insight into how the site is serving the users to meet their requirements (Turban et al., 2013). It helps in increasing the response rate by dealing with the right customers, which in turn will increase the Return on Investment (ROI) and increase the customer's loyalty. Having a completely advanced and attractive website without any web analytic software programs is totally useless (Stone, 2009). This study is a way to improve the online marketing plan to make more leads to the sites. This study will help to track the kind of data and find out the best promotion method works for the business to plan the marketing strategy (Järvinen & Karjaluo, 2015).

Justification statement

The Web analytics is significant to analyze the web data and make the best use of the site (Waisberg & Kaushik, 2009). Web analytics measure things that are considered by the webmaster. The reason to select this topic comes from the experience of working with customers for several years as a practical support for solving the technical issue in business websites and CRM software (Weber, 2009). In this paper, the BI tools have been used to increase the target customers and the target people to their business. Web analytics tools can be used to bring those customers to visit the websites and purchase their

products (Pate, 2010). Web analytics will help to advance the performance of the website. It also assists to measure the efficiency of an advertisement campaign, that will increase the revenue and profitability (Hughes, 2016).

Author: Colorado Technical University.

I. INTRODUCTION TO WEB ANALYTICS 2.0

A. Background of Web analytics 2.0 and BI

Web Analytics is the science that improves the websites in order to grow the business success by refining the user's websites experience (Waisberg & Kaushik, 2009). This science uses statistic, data mining technique, and procedural processes (Nakatani & Chuang, 2011). It is an art because, like brilliant painters, the analyst has to get from a varied pallet of data resources to find the goal that will produce insight. It is also an art since redesigning the website needs deep levels of originality, matching user-centric scheme, promotion, contents, pictures, and more. Also, the analyzer is always walking the acceptable line between the website designers, IT workers, vendors, senior management (Waisberg & Kaushik, 2009). For business success, it is important to understand what the customers are looking for, it gives the managers better ideas of who they are, how they act, how they segment the keywords and link it to how the managers are segmenting (Cleary, 2013).

B. Moving to Web Analytics 2.0

Powered by the integration of big data, the cloud computing, and the new analytical approaches, analytic 2.0 delivers a new insight into advertising's outcome on revenues (Nakatani & Chuang, 2011). It includes three broad activities: attribution, the processes of measuring the contribution of the elements of advertising; optimizations, by using projecting analytics tool to run scenario for businesses planning; and allocations, the real-time redeployment of resource across advertising activities based on the optimization scenario.

II. RESEARCH METHODOLOGY

A. Applying Web Analytics Procedure to Advance the users Experience

The goal of Web Analytics is to understand and advance the experiences of online clients while growing incomes for online business. Compared to other methods, this can be complete by learning the ways clients navigating the websites (Nakatani & Chuang, 2011). The official meanings of Web Analytics are the measurements, collections, analysis, and broadcasting of internet information for the determinations of sympathetic and enhancing Web usages (Waisberg & Kaushik, 2009). Web Analytic is not a technology to get a report; it is a procedure that offers some good cycles for websites optimizations (Phippen et al., 2004). According to the field's best practice, the procedure will allow websites owners to measure customer's gaining costs against incomes, to get the most gainful visitors are acting in the websites, and to enhance the websites and advance its performance or effectiveness. The important steps of this process are the following (Waisberg & Kaushik, 2009):

1- Defining the Aims of web analytics process

The response to the inquiry is critical and important to a website's aims: why does the Website exist? The Website will have a single response to the question: for instance, the e-commerce Websites must sell goods, web supporters must answer the clients' question, and must deliver satisfied service (Phippen et al., 2004). The website's owners must describe success giving to his/her own objects and revisit the aims occasionally. The website's purpose is a serious issue that can help in classifying the metric that assists to determine the achievement of these channels (Waisberg & Kaushik, 2009).

-Defining the Website Metrics by Key Performance Indicator (KPIs)

Calculating the goal's achievement will be done by making a Key Performance Indicator (KPI). It is a knowledge in the Web Analytic communities that data does not worth the gathering if it does not

produce insights (Nakatani & Chuang, 2011). If the advertising costs per visitors to the websites are measured, there must be two movements connected to it: one for the declines in this numbers, and one for a growth in it (Waisberg & Kaushik, 2009). The important feature of the KPI is extremely adaptable: each business, division, or individual should have its KPI well-defined based on the business or individual objects and interest. One shared division of KPIs crossways the industries is by order: upper-management obtains reports on the general achievements of the website's goals; mismanagement obtains reports on campaign and site optimizations result; and specialists obtain thorough and practical reports on websites performance (Waisberg & Kaushik, 2009). Good KPIs should cover four points:

- a. *Un-complex*: Selections in business are made by persons in numerous sections with dissimilar backgrounds. If the web forecaster was understanding the KPIs, it is improbable that decisions makers crossways the business will use it (Waisberg & Kaushik, 2009).
- b. *Relevant*: Each commercial is sole, even industries that appear like they might be in the same businesses. It must be supposed that businesses should/would/could amount their websites with comparable web metric (Waisberg & Kaushik, 2009). Though, the only object they have in sharing is the detail that they retail large-screens TVs on their websites. Everything else is dissimilar: their commercial model, their urgencies, and how each incline to use the Web in its multi-channels portfolios.
- c. *Timely*: Countless metrics should be providing prompt so that decisions makers can make a timely decision. Even outstanding KPIs are unusable if it takes a month to get data when the industries change every period (Waisberg & Kaushik, 2009).

3- Collecting the Required Data for Web analytics platforms

It is known that information is composed precisely and protected on local or outside

databases for additional analysis (Waisberg & Kaushik, 2009). Data collections are central to analysis outcomes. Some key ways of taking data activities from the website include: WebLog, each time the visitors to websites need data (for instance, when the visitor clicks some links to go to other pages on the websites); the servers of the site register this demand in log files (Turban et al., 2013). The log files can have numerous formats which are important to keep the IP of the computer that requests the information, dates or time at which the transactions were accomplished, time is taken for transactions achievement, bytes moved, and whether the cache hit happened (Waisberg & Kaushik, 2009).

When start tracking where the web visitors are spending the time and how they find the websites, it is easy to understand the keywords and contents that managers need to make their websites more effective (Turban et al., 2013). This analytic will tell the managers if they are on the right tracks and where they may need to use innovative keywords and add new contents (Phippen et al., 2004). Web analytics also important to enhance the customer-business relationship, some key components include.

a. *Web Log*: As discussed the previous paragraph, the advantages of this technique includes: the owners have full controls through the confidentiality of the data; Weblog is available backward, which enable the websites owners to reanalyze pasts campaign and reprocess data; It saves web flatterer behaviors (crawlers from search machines visits the websites to indexing them and demonstrate in research result) (Waisberg & Kaushik, 2009).

b. *JavaScript Taggings*: which contains a small JavaScripts (that is not allowed to be hidden) in all pages of the websites. Every time the visitors use the pages, these JavaScript is triggered, and the visitor's data information and action are protected in the separate files (Phippen et al., 2004). Advantage of this technique includes totals each visit (except the customers closes the pages before the scripts are loaded) to the websites,

while log file can be pretentious by the cached page by the Proxies (the networks connection providers) or the user's browsers, which can guide the pages to visitors without registration log files in the servers (Waisberg & Kaushik, 2009). The cache data is lost when analyzing the log file, dropping the accurateness of the customer's data. The JavaScripts are not read by the crawler, which generates a high amount of traffics and is not illustrative of customers behaviors.

c. *Web Beacon*: This tool used to check the banners impression, it is not used frequently. The web beacon can still be initiated on the webs. The great benefits (and shared usages) of web beacons is in following customers behaviors across many websites (Ahmed, 2013). It responses to the question of how excellent ads execution across numerous website is. Due to the same servers that are gathering the data, read the cookies the track them, it is easy for promoters to track, anonymously, the same visitors across the multiple places or diverse visitors to the same sites (Waisberg & Kaushik, 2009).

4- Analyze the data to comprehend the customer's behaviors

From the collected information, the web predictor should track a few initial steps. To identify analyses that will help with the conversions of data into insight, which will be vital for enhancing any websites. First, starting from the basics of any web analytics tools presenting the summary reports, the groups of basic metrics that are available directly after logging into the tools. Second, understand the traffic Source another standard report on Web Analytic tool is the traffic source reporting (Waisberg & Kaushik, 2009). It typically illustrates the percentages and absolute numbers of visitor that originated from each kind of sources. Previously, the manager of the website could select their landing page for each campaign and have the extra of determining how the companies would starting their calls to the websites. Today, this switch is lost.

The site overlay number, metric, and spreadsheet are still crushing. The users need to see the

information is visually characterized (Chen et al., 2012). The sites linked the reports, presenting in the most web analytics tool, demonstrating the numbers of clicking on each link on the pages (Ahmed, 2013). Web analyzers should look for a cluster of heavy click, the top 2 or 3 most snapped link; then try to settle this knowledge in contradiction of link that s/he is wanting the visitor to click on (Turban et al., 2013). The person must also look at the link that eventually drives the high conversion and ask a question such as do more persons converting on the sites if they are clicking on products comparisons on the homepages or go straight to a product page? It is serious to following the couples of heavy clicking and see what persons do. The web analyst tends to an emphasis on visitors, parameter, and nuances, except outcome (Ahmed, 2013). Web analyst must be pushing themselves to discovery the "critical few" significant metric for the 'sites. Also, they usually linked to the general objectives of the presence of the website. For some blogs, it can be the amount who was visiting the speaking engagement pages and attending one of the engagements (Liautaud & Hammond, 2000).

B. Experimentation and testing

The job of the web analyst is to describe how creating, designing and implementing the idea of equality. The most stimulating outcomes about testing are not the final consequence; it is the knowledge experience of the customers (Nakatani & Chuang, 2011). The web expert, designers, and website managers will understand from the sources what the 'sites should look like, what the customer want. Using statistical techniques, one can control whether variations on the websites have enhanced the conversion rates or not. It is serious to understand that testing is not restricted to landing the page or campaign. It should be applied across the websites, wherever guests are abandoning the websites and wherever the websites are leaving money on the tables. Some endorse the following to starting and innovative web analysts (Turban et al., 2013):

1. Starting with a radical A/B tests: these shows the values of testing faster since the analyst will get the important modify faster. It will bring the expressive change essential to hold testing across the organizations.
2. Testing the Single Page vs. Multi-Pages Checkout: one of the greatest methods to advance change is to decrease Cart and Checkout Abandonments rates. Some website has one-page checkout processes: shipping, promoting, reviewing and submitting. Another website has it on many pages.
3. Optimizing the Number of ads and Layouts of ads: for 'sites portion advertisement, experts indorse testing the numbers of ads on the pages. We have seen a test in which a client reduced the number of ads on the pages by 25 percent, and the consequences enhanced by 40 percent.
4. Test multiple Pricing/Selling tactic: the following is the case study that best clarifies this method, the company was selling some products but the atmosphere got rough, so the participants got competitive(Ahmed, 2013). How to be fighting back? Some "genius" in the business had the ideas, its ok to give the cheapest products, now valued at 15 Dollars for free? This impression certainly introduces some fundamental challenges: no one enjoys giving up the revenues (Ahmed, 2013). And the employees concerned about how definite it would be, what will be the incomes influence? And they measured for risks by doing a 95 percent control and 5% versions A test.

C. Voice of the Customer

As the webs are evolving, and the customer takes up the wheels of it, the marketer must find the solution to engage the customer with their website/brand (Ahmed, 2013). The customers are no longer pleased with consumptions; they gradually supposed to be complicated in the productions of what they buy, revolving them into prosumer. When the customers come to the websites, s/he is perhaps observing for something: to buy the products, to collect information, to have a fun, and so on. By

examining clickstreams data, it is tough (if probable at all) to comprehend whether the visitors found whatever s/he was observing for and how productive was the websites experiences (Ahmed, 2013). The most creative way to comprehend the customer is to give them the voices, ask them.

Today, it is conceivable to do a modest online survey and get significant customers feedbacks on the website's performance; 4Q Online Survey (www.4qsurvey.com) deliver such a free platform(Nakatani & Chuang, 2011). The organizations will learn what transports customer to the websites, and how/if the business is bringing it (Nakatani & Chuang, 2011). 4Q suggests a four- inquiry surveys that should be requested of every customer (% of them) pending to the websites(Turban et al., 2013):

- What is the visitor on my website to do?
- Are they implementing what they setting out to do?
- If no, why?
- How pleased are the website's visitors? If the webs analyst requests to classify how best to recover the website's page using 'site-levels feedbacks, there are free options for that, Kampyle (www.kampyle.com), a business that delivers feedbacks, analytic customer, telling us what the business does is the first stage and best method to recover customer satisfaction and, thus, websites performance (Nakatani & Chuang, 2011).

III. FUTURE WORKS

In talking to several vendors, salespersons, website owner and management, it is clear that Web Analytic can be hard as climbing the Mount Everest. Though to be the top, one has to jump, and the best method is by creating one step a time and viewing website improvements along the way (Nakatani & Chuang, 2011). Many analyses showed that some methods can be used to advance websites performance, but considerable stakeholder the significance of Web Analytic is important in implementing change(Turban et al., 2013). Web analyst must try to get everybody in

the organizations happier about using the data, make it attractive. Surprising the people is important, staffs are always observing for ways to resolve their problem. Receiving a hundred spreadsheet packed with data does not solve the problem. One way to assist workers is to casually method them and try to comprehend their data wants (Turban et al., 2013).

IV. CONCLUSION

The most important question here is how can the website's managers persuade surfers to buy the products? The answer should be looking on the info and understanding what is occurring in the websites, listening to customers and their requirements and optimizing the sites to better serving; after all, they are the reasons for the presence of the site. The customers must tell the company what to perform, not a consultant, friend or feeling; the data and online survey are the places to look for customer requirements and needs. In the future, it is vital to discuss the significance of extra sources of information to understand the customer behaviors and the general websites capability as comparing to a competitor. It is a new suggested method to think about the web info and the best designs to meet the customer requirements, a new approach to think about the original resources of information, which can build the complete pictures of customers and their behavior in website, to attract the customers to buy the products and increase the profitability.

REFERENCES

1. Ahmed, S. (2013). *Towards a utility framework for enterprise business intelligence mashups* (Order No. MS26761). Available from ProQuest Dissertations & Theses Global. (1522752067). Retrieved from <https://proxy.cecylibrary.com/login?url=https://search-proquest-com.proxy.cecylibrary.com/docview/1522752067?accountid=144789>
2. (This resource describes the best use of enterprise BI as a framework mashups in different kinds of business)
3. Cleary, P. J. (2013). *Main street 2.0: A guide to online and social media marketing for small business through the use of online analytics and content marketing strategies* (Order No. 1540509). Available from ProQuest Dissertations & Theses Global. (1418021294). Retrieved from <https://proxy.cecylibrary.com/login?url=https://search-proquest-com.proxy.cecylibrary.com/docview/1418021294?accountid=144789>
4. (This resource used to get more information regarding the online analytics tools and marketing performance, this helps to add info in the topic overview)
5. Chen, H., Chiang, R. H., & Storey, V. C. (2012). Business intelligence and analytics: from big data to a large impact. *MIS Quarterly*, 1165-1188.
6. (This resource is useful to get more info regarding the BI analytics)
7. Hughes, M. E. (2016). Entrepreneurship in a web 2.0 world: Factors influencing intentions to adopt web 2.0 social media in U.S. entrepreneurial activities (Order No. 10241828). Available from ProQuest Dissertations & Theses Global. (1855176897). Retrieved from <https://proxy.cecylibrary.com/login?url=https://search-proquest-com.proxy.cecylibrary.com/docview/1855176897?accountid=144789>
8. Hennig-Thurau, T., & Klee, A. (1997). The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development. *Psychology & marketing*, 14(8), 737-764.
9. (this resource has been used to find the impact of customer and relationship quality in the business performance)
10. Järvinen, J., & Karjaluo, H. (2015). The use of web analytics for digital marketing performance measurement. *Industrial Marketing Management*, 50, 117. Retrieved from <https://proxy.cecylibrary.com/login?url=https://search-proquest-com.proxy.cecylibrary.com/docview/1729122278?accountid=144789>
11. (This resource has general information on the effect of Web analytics in marketing)

performance measure as well as the different tools for this process, used in the Methodology)

12. Liataud, B., & Hammond, M. (2000). *e-Business intelligence: turning information into knowledge into profit*. McGraw-Hill, Inc.
 13. Pate, K. D. (2010). *Developing a framework for the evaluation of corporate non-transactional business-to-consumer websites: A descriptive study* (Order No. 3419165). Available from ProQuest Dissertations & Theses Global. (751932810). Retrieved from <https://proxy.cecybrary.com/login?url=https://search-proquest-com.proxy.cecybrary.com/docview/751932810?accountid=144789>
 14. Phippen, A., Sheppard, L., & Furnell, S. (2004). An applied assessment of Web analytics. *Internet Research*, 14(4), 284-293.
 15. (This resource has been used to evaluate the importance of applying Web analytics in the study significance)
 16. Stone, M. (2009). Staying customer-focused and trusted: Web 2.0 and customer 2.0 in financial services. *Journal of Database Marketing & Customer Strategy Management*, 16(2), 101-131. Doi: <http://dx.doi.org.proxy.cecybrary.com/10.1057/dbm.2009.13>
 17. (In this resource, the imperative benefits that can be gained from Web 2.0 analysis in customer's side, regarding the financial services)
 18. Sawchuk, K. A. (1995). Age, identity, and target marketing. *Images of aging: Cultural representations of later life*, 175.
 19. (This resource has been used to get info in regards the target marketing process)
 20. Turban, E., King, D., Sharda, R., & Delen, D. (2013). *Business intelligence: a managerial perspective on analytics*. Prentice Hall, New York.
 21. (This resource has been used to define the different viewpoints of BI analytic on Web analytics).
 22. Waisberg, D., & Kaushik, A. (2009). *Web Analytics 2.0: empowering customer*
- centricity. *The original Search Engine Marketing Journal*, 2(1), 5-11.
23. (This resource has been used to understand how the digital customers or online customers can affect the business performance).

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