Abstract-Search Engine Optimization is the method of increasing the visit of a website on a natural way. Implementing Search Engine Optimization methods in Big data analytics to analysis the hidden patterns, market trends and other business related information. The findings using Big data analytics can be used to improve the marketing performance and other business activities. In this work big data analytics and SEO keywords are combined. By combining SEO keywords and big data analytics new strategies are explored and implemented in the business.

Keywords: SEO, BIG DATA, SEO Analytics, Keywords.

I. INTRODUCTION

To generate traffic in web through search, keyword research should be done. Focus on keywords for the content is done using big data analytics methods. To increase the search the key word for the particular content should be relevant to the subject. Big data analytics is the method of examining large data sets containing a variety of data types. Data collection should be effective, trustable and consistent. The use of marketing analytics improves the effectiveness of target ROI and reduces the costs useless marketing strategies.

Using analytic tools the path is explored for the business. Keyword research is very important metric in analytic tools. For keyword analytics keyword research tools are used. Search for high ranking keywords. Use the keyword in optimizing web page content. The keywords should be distributed on content title, Meta description, URL, images through the alt text, and the H1 tag. Keyword research will keep SEO strategies up-to-date and relevant to the changing trend in customer behavior and digital marketing.

The major challenges for large scale SEO is determining which keywords to use. A data model using the search results, back link data, and keyword data, and Google analytics data. With this data model we could pinpoint the keywords and pages that had most potential for the SEO strategy. Big data SEO is not just about effectiveness, meaning making things fast and accurate. Segmenting the data by demographics, behavior, and business benefit.

II. METHODOLOGY

Key word selection through Prediction for segmentation.
Prediction plays an integral role in helping marketers to predict customer behavior. Customer segmentation is one of these prediction can become a big data resource in understand customer needs.

Segment your customers by demographics.
This will give information regarding customer’s age, location, sex, educational background, income, family size and social class. You can design strategies by targeting specific groups of customers. For example, if more of your visiting customers are men you can further drive your market in catering to this target group of customers who are likely attracted and enticed to patronize your products by using web designs that are male friendly.

Behavioral segmentation
The behavior of customers will give you big data regarding customer loyalty and usage of your products. Then separate customers using the products and which products they patronize the most
from those that lightly use your products for their daily usage. Extract Knowledge from analytic data regarding the behavior of users. This type segmenting customers will give you big data regarding customer loyalty and usage of your products. Separate customers that are more frequent in using your products and which products they patronize the most from those that lightly use your products for their daily needs. Take note of their shopping preferences, lifestyle, purchasing behavior, communication engagement, spending habits and service delivery preference.

**Leverage on benefit segmentation**
Grow the ability of the business to satisfy customer’s needs and wants through benefits. The response to products varies and using this prediction will enable customers who purchase products based on the benefits it can give. Among the segmentation metrics the price, style, prestige, comfort and other benefit categories that you can use in order to develop better products to satisfy customer needs and preferences. Big Data can be taken advantage of in improving your website’s SEO instead of using traditional SEO. The most important of using Big Data in business generally is not really in the tools, but in finding creative ways to gain insights to help you make smart business decisions. Therefore, you need to keep an open mind with the various tools available, and be flexible in their use as long as you get the data you need to grow your business. Aim with SEO should be:
Identifying audience and knowing what exactly they are interested
Using this knowledge to position strategically

**Biggest Competitors**
Identify the audience is better than spying competitors so that identify whom they’re targeting? Fortunately, this step is the easiest, and the Big Data tool we’ll be using – also the easiest to use – is Google Search. You’re probably already familiar with this tool.
Google browser type in what you think your primary keyword is. just search whatever comes to your mind, we’ll adjust that in the next steps.
Write out the top websites in the organic (non-paid) section of the search results. Next, look at the paid ads above and beside the organic results. Write down the top too. If they’re not up to , check the next pages. If you cannot find any paid ad, avoid that keyword! It’s probably not profitable.

**Ideal Keywords**
If new right keyword(s) identified then type biggest known competitor’s website and able to see a list of competitors. Identify their most important keywords to determine the ones that are related to your business. Other Big Data tools can further use to nail keywords at this stage are Google Ad words Keyword Planner, Amazon, EBay, and Click Bank. These will help to get more keywords and know what exactly need.

**Ideal Audience**
Determine the audience. Know the specific geography of audience, age, interests. Examples of other Big Data tools you can also use are SimilarWeb, Alexa, QuantCast, Compete, and so on.
QuantCast. Will give lot of very helpful information, including demographic, audience interest and geographic information.
Alexa for more data. Here the competitor’s are identified , any gaps from the QuantCast search, Alexa fill them up.
These tools will give lot of valuable information about audience, and reveal more competitors.

**Optimize Site**
After identifying real audience extract the information about what they want, and where you can find them. Simply use the information identified to optimize your site for search engines.
Place the keywords discovered in Meta tags and web the info graphic is not optimized for search engines and your ideal audience may never find it on Google. In addition, focus on where your ideal audience hangs out. Big Data work for you.

By combining large pools of data, find previously hidden patterns that can lead to smarter business decisions and improved it for new innovative ideas. While it’s easy to talk about data on an abstract level, but it can be challenging for businesses to determine exactly what type of data matters for their specific company. Online marketing budgets are basically divided into paid search and organic search, and people separate the two when generating and analyzing reports. But it shouldn’t be like that.

**Multidimensional data model**

Important dimensions in SEO: keywords, rank, referral pages, and back links. Data comes from different sources. Therefore, data has to be collected from different sources, cleaned and combined in a multidimensional data model. Then this model can be used to analyze. Search results are only correct by approximation. Taking larger datasets enables the application of statistical methods to increase correctness of the analysis. It also allows finding the patterns in the data. These patterns can be the group of keyword.

**Permutation to generate keywords**

Using Big data large quantity of keywords are generated. Initially keyword research identifies keywords and groups them together in semantically similar categories. Then keywords are generated by combining all keywords in certain groups with each other using recursion, which results in all relevant permutations of words the categories.

**Data model building**

Keywords generated using permutation, data links, and search results are combined into a data model. For each domain, sub domain, and URL, add data on the number of links, they have, and other metrics, such as trust flow or domain authority. Other analytics tools also used to build data model.

**Result analysis**

Once the data model built, the tool is used to answer the clients’ questions. This is often: Which keywords should we target, which part of pages should we optimize, and where are competitors strong.

The biggest problem for large websites is to identifying these keywords. Even a small online website can be found in Google search results with several hundred keywords. So focus should be on identifying the right keywords. Of course there is still a range of other strategies for finding the most attractive search words for optimization.

A strategy for finding the right keywords is a direct association with the closest competitors. Keywords are found with the competitor receives a lot of traffic. If this is also an attractive search term for us, it is worth it to work on these pages.

### III. CONCLUSION

The SEO has many parameters which keywords should we target, which part of pages should optimize, and where are competitors strong. A strategy for finding the right keywords is a direct association with the closest competitors. Keywords are found with the competitor receives a lot of traffic. If this is also an attractive search term for us; it is worth it to work on these pages. Trust Rank is one of the methods for improving rankings in complex linking schemes. Because Big Data is complex data with different variety and volume.

Search Engine Optimization methods in Big data analytics to analysis the hidden patterns, market trends and other business related information. The findings using Big data analytics can be used to
improve the marketing performance and other business activities. In this work big data analytics and SEO keywords are combined. By combining SEO keywords and big data analytics new strategies are explored and implemented in the business. Search engines like Google do analyses but many marketers don’t realize the real impact of big data on SEO. Big data is making it easier for search engines to analyze content and deliver results that are the most relevant to customer needs. As a result, SEOs who focus on creating the true content people are searching for will be uniquely positioned to benefit from the impact of big data on SEO.

REFERENCES