

BIG DATA ANALYSIS IN MARKETING AND ITS IMPLEMENTATIONS IN UZBEKISTAN

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Abstract

One of the most important questions for using big data analysis in marketing today is widely discussed. In general, big data is not a novelty because it has successfully been used in various countries.

Keywords: big data; marketing; data analysis, Uzbekistan

Introduction

Big data cannot be called an innovation since it has been successfully applied in practice in various countries for several years. In the United States, big data analysis is used by both the most significant firms that promote their goods and services, as well as the most popular banks in the states, which use big data analysis to issue mortgage loans and predict the possible impending bankruptcy of a client, as well as police specialists to reduce the level of the country of crimes.

Although the effectiveness of big data analysis in marketing can be considered undeniable, this method is quite challenging to implement in Uzbekistan. This phenomenon can be associated with several problems that today are becoming an insurmountable obstacle for most Uzbek companies. In this regard, the question arises - how can one overcome the main obstacles on the way to a real revolution in the field of marketing and the use of big data analysis in Uzbekistan as a widely used technology, and not as "startups,"? When specialists in this field should not just sell your technology, but before that, convince clients of the return on their investment?

Implementations of Big Data

Prior to the point that we answer this question, it is necessary to understand the very essence of the term "big data," the benefits of working with it, as well as the situation in the Uzbek

market as a whole. Big Data is one of the most precise tools for classifying the target audience, their demand, activity, and interests.

The main tasks of the technology groups united by the concept of "big data" are reduced to:

1. Storage and processing of a large amount of structured data, their constant analysis and a quick real-time response to happening changes;
2. Collection, storage, and use of unstructured data of various kinds. Examples include visual, audio, and video information.

Some marketing professionals equate the value of using Big Data to a company with the value of labor and capital. They identify several main significant areas of the use of big data.

First, the use of Big Data serves for the detailed segmentation of various consumers, which in turn allows personalizing offers for them.

Secondly, a well-set complex analytics system helps to optimize the decision-making mechanism.

Thirdly, one cannot fail to note the fact that "big data" makes information more accessible.

Fourth, because organizations tend to create and store most of their transactions in digital forms, one can gain more accurate performance information at all stages while using big data.

Competition is the main factor influencing the development of technologies such as big data.

Therefore, the following statement was made by many experts about the widespread use of big data in highly competitive markets: "The most successful projects are being implemented in such highly competitive areas as telecommunications, banks, and retail. Along with the world's largest companies (IBM, ING, VISA, Merrill, Lynch, Bank of America, Central Bank of India, HSBC, Capital One, Amazon, Facebook, Twitter, Google,), Uzbek companies are however largely falling behind when it comes to using Big Data technologies to solve their business problems."

While it is yet questionable to distinguish Uzbek companies striving to use big data, some of the "Big Players" from neighboring countries have succeeded in using it. The most striving examples include Yandex, Russia based search engine, and several other banks. For example, Sberbank, one of the largest Russian banks, is implementing a program for the use of big data technologies in marketing, risk management, coordination of relationships with bank customers, in sales, as well as combating fraud.

One of the sources of scientific literature on Big Data, developed by the Boston Consulting Group, provides an excellent example of the need to use Big Data by banks. So, one of the largest European banks faced a real conundrum of creating a new data warehouse and CRM systems. The functional requirements requested by the bank's business units far exceeded the budgetary capacity of a traditional storage system. After that, the bank's management system found a way out in the development of a series of new applications using structured and unstructured data from various digital channels. Since traditional systems are not suitable for processing this type of data, they consume excessive resources for computation and storage. The new hybrid data warehouse system, combining traditional technologies and big data technologies, provided all the functionality required by the business units and provided savings of almost 30% of the original cost.

Another interesting example of the beneficial use of big data is discussed in the same source. Thus, one of the leading European banks began to use data from cards of its payment system in order to build a digital data dashboard for bars and restaurants. This dashboard contained multi-level, aggregated information that can be used to improve the quality of service, and attract new customers in catering establishments. Most restaurants in just a few months evaluated the efficiency and profitability of working with this system, and the bank, in turn, predicted revenues from its creation for 50 million euros.

Big Data in action

Let us now consider several examples of the benefits of working with Big Data using examples of "Big Data" analysis by Yandex and Google.

Big data analysis allows using more recent developments in the field of marketing and personalization of offers. For example, there are various tools for data visualization based on big data processing. Suppose a marketer advertises in various social resources such as Facebook, Vkontakte, Yandex, and Google systems. He can easily track performance in the Google Analytics system.

If necessary, he can link all the data together in the report, using the Google Data Studio tool developed by Google, which helps to visualize data from various sources, as well as analyze the effectiveness of advertising campaigns. In this case, he needs to create a report template

once. With the further change of dates in the report, the data will be updated automatically.

"Data Studio" connects the "Google Analytics" system, which contains analytics for the reporting period according to various parameters (user gender, age, device, viewing depth, time on the site.) together with the data of advertising accounts.

Another essential advantage of the Google Data Studio tool is the ability to provide the client with access to the report with the ability to edit it, which allows the client, by changing the dates in the report, to receive up-to-date information on the results of an advertising campaign in real-time.

Let us take a look at another advantage of working with big data taking the example of SEO. Currently, the systems "Yandex" and "Google" are always highlighting new algorithms for ranking sites in search engines, meaning that machines, while working with big data, in the same ways as humans, are constantly "learning."

For example, there is an algorithm on Yandex called Spectrum. The work of this technology is based on the statistics of search queries. Its creators declare: "The Spectrum technology can take into account many implicit goals of users and show the appropriate answers". In their opinion, 20% of search engine users form their queries ambiguously. So, when entering the query "Napoleon," some users want to get information about the commander, while the other part is interested in the recipe for a popular cake. By studying the exact goals of the user, the system can show the desired answers.

The third example includes ads in ad campaigns. For any advertising (contextual, social media advertising, RTB,) the types of targeting are continually expanding. A look-alike audience would be a good example. Thus, a marketer can create in Yandex Audience a segment of users who made orders (through the Yandex Metrika analytics system, where the specialist is given the opportunity to track this kind of information). The Yandex system then finds similar users based on behavioral factors.

And the last example of using big data in marketing is the Yandex Zen service developed by Yandex. Its main task is to develop personal recommendations based on the analysis of the history of visited pages (Yandex zen 2020). For example, this service is able to compile a selection of news, videos, various posts and other kinds of publications that may be of interest to the user. With the transition from MatrixNet to a new method of machine learning -

CatBoost, the results of issuing, ranking and classifying data will become more perfect.
(CatBoost, 2020)

The main question

But if there are more and more examples describing the main advantages and benefits of working with big data, why is this technology still not widely used in Uzbekistan? This poses a number of problems.

The first problem that can be singled out is the unpreparedness of the Uzbek market to work with big data technologies. Most often, customers who turn to specialists in this field are not yet able to set specific tasks and fully understand all the real possibilities of Big Data. As such, most specialized agencies now have to convince companies of the value of their significant data investment.

The second problem is related to Big Data professionals. There are two main groups of people who specialize in working with big data: these are analysts and the IT consultants themselves who develop technologies for working with big data. If initially only ordinary mathematicians and analysts could be attributed to specialists in working with big data, now a new category of specialists is already emerging who must have a good understanding of the technology of working with big data and their life cycle.

However, it can be assumed that the solution to these problems will not belong in coming, and, perhaps, very shortly, work with big data in Russia will gain momentum.

Big data specialists are becoming more and more in demand now. In Russia, there are already special programs in educational institutions in this area. For example, in 2007, Yandex founded the School of Data Analysis, and in April 2015, based on the School of Business Informatics that existed at the Higher School of Economics, the School of Business Informatics was established, one of the main directions of which was work with the big data system. Furthermore, most likely, in the future, the number of such training programs in the country will grow.

It should not be forgotten that humanity every day generates more and more different kinds of information, and specialists in this field are developing a massive number of different services

and projects aimed at extracting the most useful information from this vast array of data. Big data analysis, in turn, is a highly useful tool for conducting marketing research.

Conclusion

Presumably, in a few years to come in Uzbekistan, an increasing number of analysts and marketing specialists will have the necessary skills to work with big data, and their analysis, in the context of a rapidly developing information environment, will become commonplace for Uzbekistan based companies.

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