

Big Data

Subject

Date

Executive Summary

Knowledge is power, and the knowledge related to people that a company is trying to market to, it is far more powerful. Businesses understand this and that is the reason why the burst of big data has become an important blessing for the marketers during the past few years. Technology driven arena of big data has several commonalities with the creativity based world of business – a baseless deprivation for more data or information. Big Data relates to the ever augmenting volume, variety and velocity, variability and complexity of data. This paper is aim to discuss the utilization, importance and influence of big data to a marketing firm in order to understand the significance and impact of the technology in today's business arena. For marketing firms, big data is the basic outcome of the new marketing horizon, originated from the existing world of digital technology. The paper will represent the idea that the utilization of big data to the current marketing business leads to strategic stability and success with effective and efficient use of technology that can boost the overall function of marketing.

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Introduction

Big Data relates to the augmenting volume, variety, complexity, variability and velocity of data. For marketing organizations, the technology of big data is the outcome of creative marketing horizon, emerged from the existing digital scenario. Big Data does not merely relates to the information itself, big data also refers to the potentials, challenges and competencies related with preserving and evaluating such massive information storage to reinforce a degree of decision making that is highly precise and timely as compared to anything attempted previously-decision making based on big data. Several marketers may sense like information has always been huge-and in some manners, it has. However if customer data is regarded that captured businesses two decades back-point of sale data, reactions to direct marketing campaigns, or coupon offers. Then consider the customer data gathered currently –online buying information, rates of click-through, browsing conduct, social media communications, mobile device utilization, or geographical information. Both have transformed a lot, whereas the size of the information can be termed as huge in both scenarios. (Bughin, 2016)

Difference between online and offline big data

Big Data can acquire both forms of online and offline data. Online big data is related to the information that is generated, ingested, changed, organized and/or evaluated in reality to reinforce practical applications along with their users. Since big data is originated online, dormancy for these applications needs to be very low with increased level of accessibility in order to fulfill user demands for contemporary application conduct. This comprises of a huge range of applications, from analytics to social media data generation to real-time marketing servers to intricate applications of customer relationship management. Few examples of online big data include NoSQL and MongoDB and other databases (Bughin, 2016).

Offline Big Data comprises applications that consume, shift, organize and/or assess big data in a group. They normally do not generate new information. For such applications, reaction time can be slow and can take hours or even days which are mostly satisfactory for this form of use example. Since they normally generate a static, in contrast to operational, result, like a dashboard or report, they can even get offline for a period of time without influencing the overall objective or final outcome. Some examples of offline big data comprise of workloads based on Hadoop;

contemporary data storages; business intelligence techniques and ETL (extract, transform and load) (Chandak, 2016).

Organizational Overview

The chosen organization to study the big data utilization and impact is the Kellogg Company. The company was originated by W.K. Kellogg along with his brother and Dr. John Harvey Kellogg in 1898. They flaked wheat berry by a fortunate mistake that resulted in the recipe of Kellogg's corn flakes. The head quarter of the business is situated in Battle Creek, Michigan, USA and currently operates in almost 180 countries round the world, offering ready-to-eat morning cereals along with other food items. The net sales for the company during 2013 were recorded 14.8 billion dollars. The company's brands comprise of Kellogg's Froot Loops, Special K, Frosted Flakes, Pop Tarts, Rice Krispies, Nutri-Grain Bars, Eggo Waffles and Kellogg's Corn Flakes (Chandak, 2016).



SWOT Analysis

SWOT Analysis

Strengths

1. Kellogg's Corn Flakes are created in 18 countries and sold to over 180 countries around the world.
2. Effective marketing campaigns.
3. Earth day celebrations.

4. Kellogg's "Fighting Hunger" campaign in association with Walmart.
5. Famous Mascots for advertisements.
6. Heart healthy product range.
7. Massive workforce constituting over 30,000 employees throughout the world.
8. High brand recognition and leading breakfast cereal brand choice around the world.

Weaknesses

1. Viewpoints related to un-natural morning cereals that do not make a complete breakfast option. .
2. High sugar content in few products.

Opportunities

1. Establishment of distribution channels globally.
2. International games sponsorships.
3. Healthy product range offered by Kellogg's.
4. Cooking shows based on Kellogg's recipes.
5. Lifestyle changes of consumers lead to ready-to-eat breakfast products.
6. Associations or partnerships with hotels and restaurants.

Threats

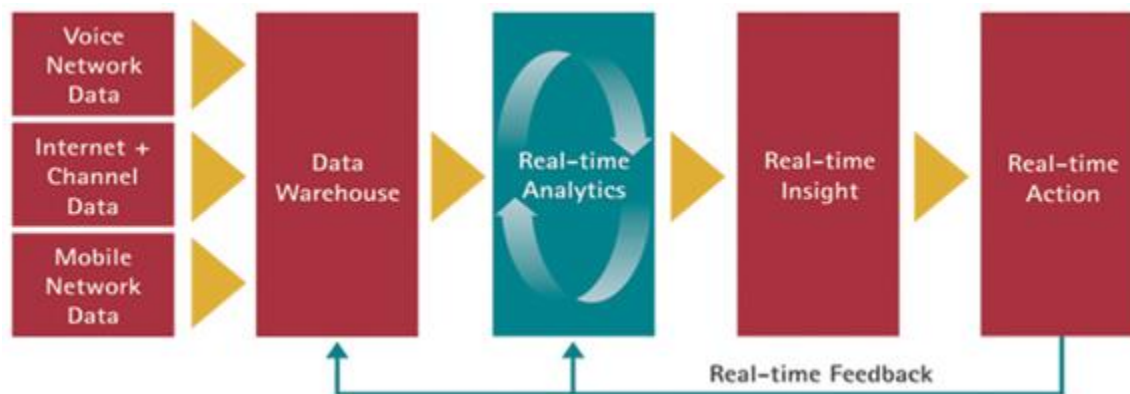
1. Emerging competition in the industry.
2. Government food regulations.

Profit margins are limited in the ready-to-eat cereal market. For a business like Kellogg, almost a third of its yearly income is invested on promotional expenditures or trade investment: every dollar invested on special offers, coupons, and promotions for exclusive pricing campaigns, product sponsorships or even the spot every brand takes on the shelf of a grocery outlet. Any advancement the company make to trade investment move straight to its baseline. If the company improves its trade investment by merely 1% that makes almost 50 million dollars (Hsu, 2016). This is according to the Senior Director of Information Technology infrastructure Engineering of Kellogg's, Stover McIlwain. The organization keeps vigilance over its trade expenditure, evaluating huge volumes of data and operating intricate simulations to forecast which marketing initiatives will be the most successful. Kellogg has been employing conventional relational information databases on grounds for data evaluation and modeling, however in 2013; this function was no longer helpful in fulfilling the rising demand. Every day, the company required to operate several complex data mock-ups on activities like television advertisement expense, digital marketing, sales commissions, shelving expenses, display costs, coupon marketing and other promotional activities (Khalilian, Mustapha and Sulaiman, 2016). However, its system merely had the potential to operate just one mock up each day. Since profit

margins are quite limited in breakfast cereal industry and a slightest change in trade expenditure can shift market share, it became important to get an effective and efficient infrastructure for its data handling. In some categories also, revenue growth rate is straight and that is why the company required to be highly agile in order to remain in the competition. Kellogg's required to eradicate waste and to spend more in trade expenditures that can drive improved and higher revenue growth. The company precisely required to shift away from its conventional on-location infrastructure (Hsu, 2016).

Development of Big Data Technologies

There is no wonder that fostering the capacity of big data is now on the major action plans of marketing executives in almost every big organization. When and how they need to tap data collections and what they should perform with it and what would be the optimum approach to understand its benefits is important to realize (Khalilian, Mustapha and Sulaiman, 2016). Also, the opportunities and challenges are to be identified. In short, marketing executives today need to understand how to work big data in order to monetize it.



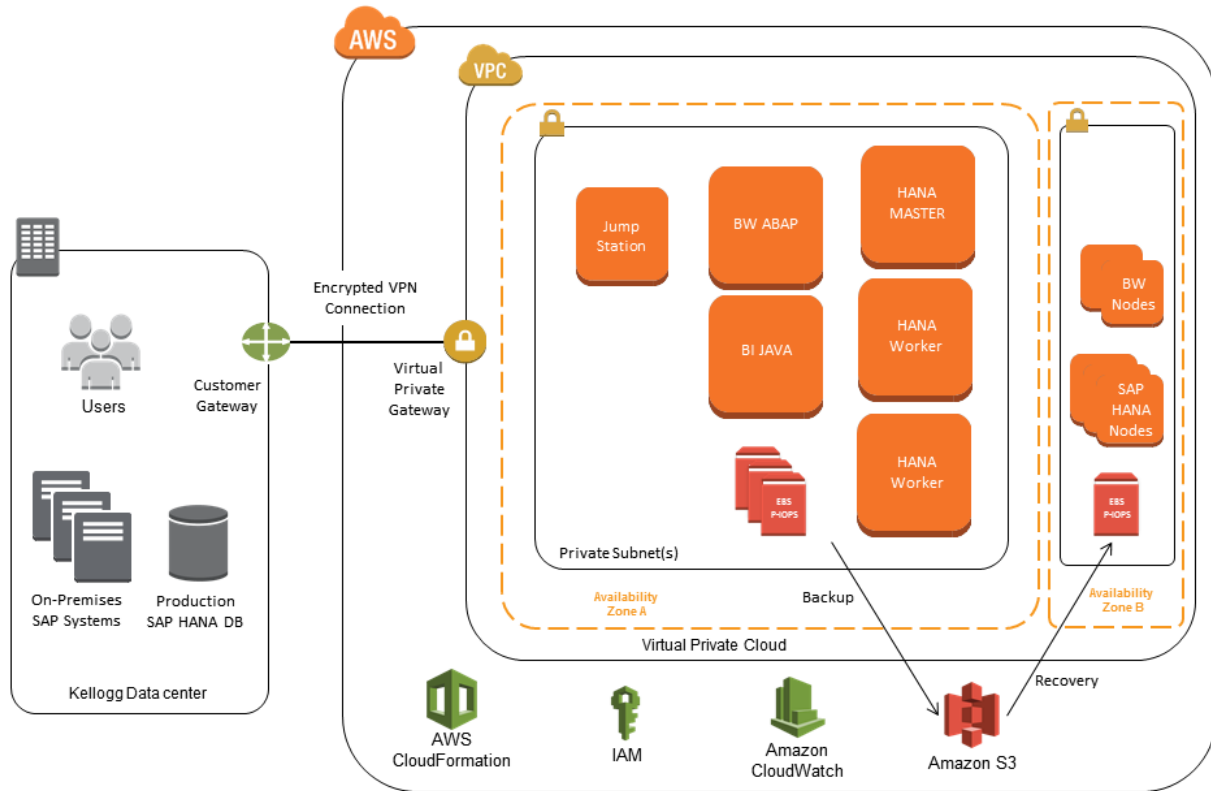
(Khalilian, Mustapha and Sulaiman, 2016)

Complex solutions of analytics meant for big data can offer new approaches for highlighting few of the important marketing features and offering convincing outcomes. These solutions can shift conventional marketing activities and enhance how to implement imperative marketing features. Marketing and gathering the information generated from a range of live consumer touch-points to create a complete scenario of every consumer conduct. Evaluating this huge amount of

information in motion facilitates marketers to organize consumer segmentation areas and implement the knowledge to establish consumer involvement strategies and enhance the worth of consumer interactions (Khosla and Sawhney, 2014).

Using Big Data in Amazon Web Services

Kellogg required a solution that would be able to accommodate huge data and level according to the requirement of its infrastructure as well as stay within its budgetary limitation. The organization became inclined towards in a solution based on SAP known as Accelerated Trade Promotion Planning, empowered by SAP HANA, in-memory technology platforms for databases (Khosla and Sawhney, 2014). Amazon Web Services were also offered through a completely SAP certified context on a public cloud databases. Since SAP performs on the Amazon Web Services provided cloud, the firm understood it could acquire the pace, performance and dexterity it needed without making substantial expenditures in physical hardware. The company decided to begin instantly with simulation and development contexts for its US work. Kellogg's is currently operating SAP accelerated Trade Promotion Management empowered by SAP HANA while influencing several Amazon Web Services forms for SAP and HANA application database levels. Such Amazon based cloud process up to 16 terabytes of sales data per week from marketing campaigns in the United States, presenting several data simulations in a day



(Marr, 2015)

Kellogg utilized Amazon CloudWatch to complete monitoring aims that helped the company to align costs to every department required on their exclusive infrastructure. It also improved decision making capacity and eliminated wastes (Yu and Whang, 2015). To gain high availability, the company leveraged several AWS zones without extra expenditures of maintaining an individual datacenter. Kellogg predicts that it will preserve nearly millions of dollars in hardware and software maintenance in coming years, only by using the latest big data solutions in its simulation and development contexts. Few of the major challenges and complexities of implementing big data solutions include data quality, understanding analytics, performance, and quality assurance, acceptance from the user, solution design and cost (Marr, 2015).

Through utilizing big data solutions provided by Amazon, Kellogg would also be able to become livelier. Instead of waiting 30 days for any changes to take place in its trade expense evaluation system, Kellogg's can spin up data instantly to perform the important data calculations. In order to implement such solution to the company (Walker, 2015), Kellogg's engineers need to realize the importance of big data accessibility of its platform that would enable them to conveniently implement their current information and infrastructure potentials to the Amazon Cloud. Moreover, through utilizing big data, the IT department's internal consumers would be able to self-invest IT functions which would save IT department to budge their projects through other departments and would result in more effective utilization of resources. The big data solution would allow the company to perform unprecedented sales of bill directly for the used infrastructure, in place of bearing the costs in the overall yearly infrastructure budget (Sadasivam and Subrahmanyam, 2016).

Conclusion

Data is a resource. There is no doubt regarding that and the reality of data is based on the notion that the value of information can be collected through analytics. Although, in contrast with commodities, it is assumed that the worth of data does not emerge as a ratio of its volume. These beliefs make data an exclusive form of resource. Although this view is precise, it does not refer to the fact that augmenting volumes and range of data generate more options to collect added value. The ability to capture semi-structured and structured or unstructured modes of data has changed this viewpoint. Big data is shifting the approach analytics were generally perceived, from data collection to advanced level of analytics. Acquiring strategic success in the FMCG market space is an outcome of a deliberate approach: know the market space and make cautious investments in order to establish strong product development. The significance of data analytics in contemporary market place thus becomes highly imperative. Kellogg's utilization of big data, as discussed in this paper, has precisely evaluated the significance of big data implementation and has highlighted the crucial features that can be enabled through big data. Therefore, the paper has focused on the important aspects of big data, what it is and how it can be utilized effectively in a real time business marketing in order to gain overall success.

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