Case Study

“Biedronka” Big Data for Industry 4.0

Keywords: *big data, 4.0 industry, grocery hypermarket, social value*

Background to Case Study:

Big data refers to all data that is collected and then analysed. As there is more and more data, it is stored in real-time. With it, companies can personalise advertising, systems can detect anomalies early, and banks can decide who to lend to. According to the ISO/IEC 2382-1 standard, data is a representation of information having an interpretation that is appropriate for communication, interpretation or processing. Data can be produced by people or machines, often as a “by-product”. Large data sets are called data that are produced at very high speed from different sources and are heterogeneous. Handling them requires new tools and methods e.g. processors, software and algorithms.

This case study presents the development of processing technologies of implementation Big Data systems by “Biedronka” (Jeronimo Martins), the leader of polish hypermarkets groceries. They have introduced a shopping facilitation system and, in conjunction with the fulfilment of government support for school children, are fulfilling an important social mission with the support of the results of using digital information processing systems.

Introduction to the Case Study and it’s growth within Industry 4.0.

Modern content marketing is not only an image activity, but also one that can be more accurately measured thanks to Big Data technology and more effectively translated into sales. Jeronimo Martins, together with school supplies manufacturer “KAYET” in Biedronka, the biggest polish grocery hypermarkets group, used the Big Data Content Marketing Platform (BigDataCMP.com).

The first step was to present a wide range of school supplies in online channels using unique and native content marketing. Relevant content appeared successively on: Biedronka's website, 10 selected parenting blogs and in reach videos on the profiles of 8 influencers. Additionally, the influencers invited their fans to take part in the Cool School Challenge competition and redirected them to a dedicated landing page. Special codes were placed on each of the aforementioned pages to collect anonymous cookie data on the DMP (Data Management Platform).

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The Case Study and Industry 4.0 Elements: A Pictorial Overview

The main rationale for building a big data quality assurance process is usually an increase in customer service costs or a lack of revenue. Before starting the project, it is important to answer the question of which business areas are most sensitive to the negative effects of reduced data quality. Check what level of information error is tolerable, so that the total cost of information quality assurance tasks does not outweigh the business benefits.

Thanks to an efficient project process, customers already know after the first few hours what error level is in their big databases and which data should be pushed back or modified. When providing services related to data quality management, we could identify sources available and check how they manage the information flow, only after making recommendations on eliminating errors and identifying sources of inflow of defective data. We can build an airtight process to prevent distortion or leakage of information. Thanks to the introduced standardisation of recording, mechanisms securing big data quality, and monitoring the level of error in the information contained, businesses can notice a noticeable difference in a relatively short period of time (already at the turn of the month), e.g. in the costs of service.

Nowadays, any business wishing to take a structured approach to build its sales funnel in the process of acquiring and retaining customers must use Big Data analytics on an ongoing basis. Certainly knowing that each customer is different and is in a different buying situation is key here. Analysis of funnel data or customer behaviour is not only reserved for businesses associated with online sales activities but also in retail and perhaps especially in B2B sales.

Undoubtedly, the biggest challenge of marketing and sales departments is to manage multiple sources of big data information and process them so that the entire organisation can understand what customers are saying and how they behave in order to realise sales potential. It is also a challenge to build an organisation that has the necessary competencies around analysing bid data by combining it from different sources, as well as the completeness of the demographic and behavioural information itself. Where there is limited trust in Big Data within an organisation or low levels of data completeness are identified, it is worth thinking about external sources to give a broader context of customer behaviour.

Big Data enrichment is an interesting idea for all organisations wishing to broaden their knowledge of the customer, e.g. where we only have an email address we can add specific variables such as connection technology, gender, interests, which will certainly give a more complete picture of sales opportunities and better management of the sales funnel through personalisation and adaptation of the context of communication to the situation in which the user or potential customer finds themselves.

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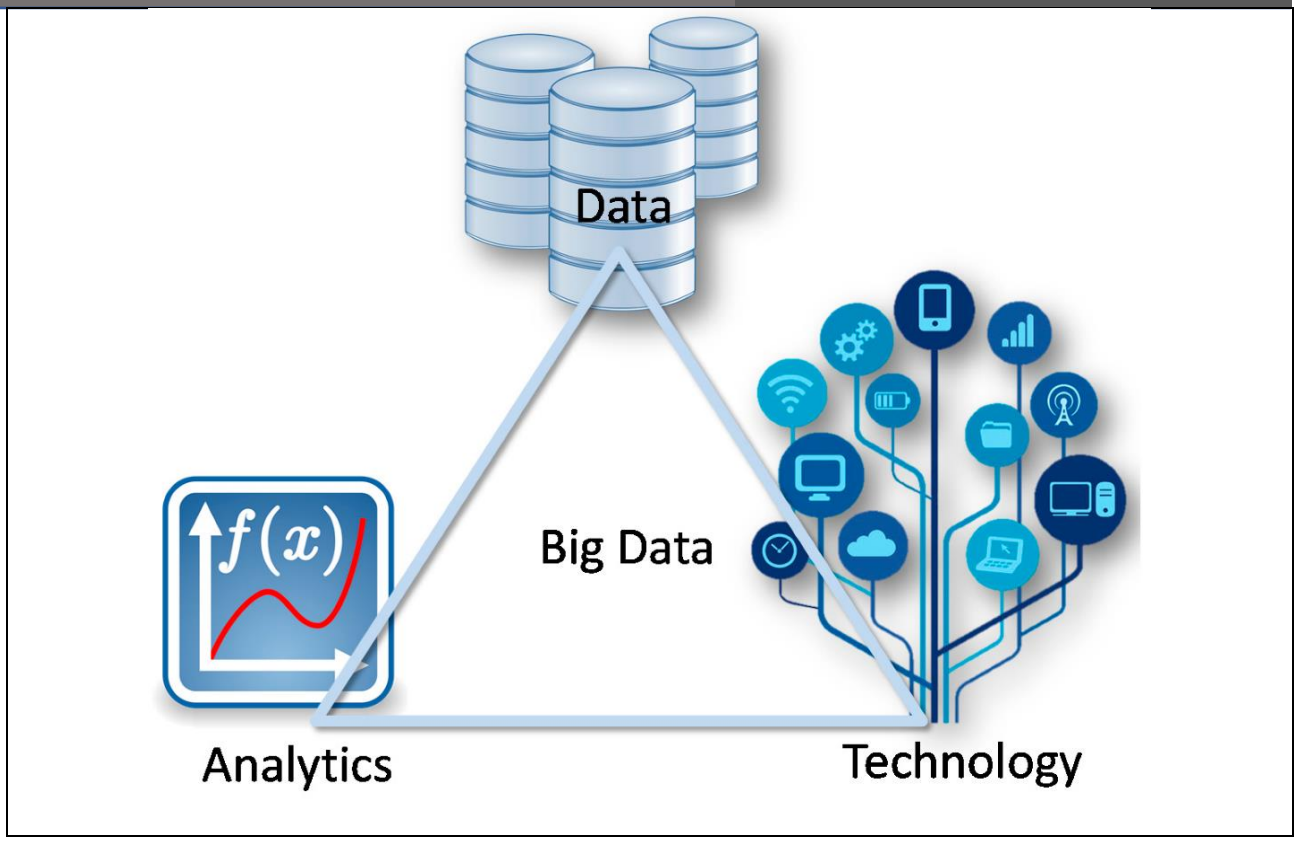

“Biedronka” Big Data for Industry 4.0

The Element Explored within Industry 4.0 Application. 	*It is worth noting the nature of the Biedronka Big Data content itself. The prepared content addressed to parents was a kind of guidebook. Texts appeared, among others, on how to effectively spend money from the government programme "Good Start" (300+) or tips on how to buy school supplies without spending "a million coins (300+), or tips on how not to spend "a million coins" when buying school supplies.* *This is an added value for the recipients themselves because thanks to the brand they have found answers to questions related to areas that concern their everyday lives. The native, advisory nature of the publication contributes to warming up the brand image in a non-intrusive way, directing them to the offer of high-quality products at an attractive price (win-win situation).* *In the second step, thanks to Big Data tools, the collected data was analysed, which in turn enabled the optimisation of the retargeting campaign. BigData CMP specialists prepared a behavioural report on the users most interested in the offer (calorie cookies) and on this basis a look-alike base was created, i.e. so-called twin profiles in relation to those most engaged in the emitted content.*

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	An important element of the campaign was the use of Big Data Content Marketing Platform in the process of selection and choice of content distribution channels. With its help, 10 blogs were selected, taking into account the fact that they are to provide the widest possible reach to the desired target group, but also to reduce the co-working index of the sites to a minimum. *The message about the offer was therefore not duplicated among the same readers in several sources. With the data collected from the product page and the competition landing page, it was possible to create a database of over a million users most interested in Biedronka's offer, to whom a retargeting campaign was directed, aimed at directing traffic (with high-calorie cookies) to the product page with "KAYET" articles.* *Also the selection of influencers was done according to the assumptions to reach the group of older children and teenagers. That is why we invited 8 influencers to cooperate with us instead of 1 influencer with a large reach. Thanks to this solution, we obtained nearly half a million views of creative materials (user-generated content) of the video with the promoted school products in the main role already at the stage of the competition, which lasted only 12 days.* *The quality of the reach built was also measured using post view data. This is a complete novelty on the Polish market, enabling monitoring of entries to the target website by users who have previously read the content but have not made a direct click.* *The use of content marketing based on Big Data made it possible to generate quality reach at a low cost, produce useful content that solves specific needs of Internet users, build a database of interested (calorie) cookies for further remarketing and retargeting activities, learn more about the needs and interests of potential customers (capital for the future), effectively influence the sales volume of promoted products The campaign was successful because several more or less important factors contributed to it. These included: a very good range of "Kayet" brand products (quality, safe, creative, unusual and inexpensive); a target group specified on the basis of a specific analysis; the use of BigData CMP tools, which allowed for optimisation, efficient use of the marketing budget and tracking of the attribution path; an appropriate period in which all the necessary activities were carried out.*
Application Target Audience	*The results of the case-study are intended for use by SMEs, Enterprises and Entrepreneurs.*
Resources Used:	➢ *https://brief.pl/biedronka-efektywnie-z-bigdatacmp-case-study/* ➢ *https://audiencenetwork.pl/casestudies/big-data-content-marketing-dla-marki-kayet-nalezacej-do-biedronki/*
Further Reading:	*https://marketing.org.pl/mwp/854-content-z-silnikiem-big-data*

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