

Literature Survey

Big Data Analytics: A Literature Review Paper

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Abstract:

In the information era, enormous amounts of data have become available on hand to decision makers. Big data refers to datasets that are not only big, but also high in variety and velocity, which makes them difficult to handle using traditional tools and techniques. Due to the rapid growth of such data, solutions need to be studied and provided in order to handle and extract value and knowledge from these datasets. Furthermore, decision makers need to be able to gain valuable insights from such varied and rapidly changing data, ranging from daily transactions to customer interactions and social network data. Such value can be provided using big data analytics, which is the application of advanced analytics techniques on big data. This paper aims to analyze some of the different analytics methods and tools which can be applied to big data, as well as the opportunities provided by the application of big data analytics in various decision domains.

Keywords: big data, data mining, analytics, decision making.

Finally, any new technology, if applied correctly can bring with it several potential benefits and innovations, let alone big data, which is a remarkable field with a bright future, if approached correctly. However, big data is very difficult to deal with. It requires proper storage, management, integration, federation, cleansing, processing, analyzing, etc. With all the problems faced with traditional data management, big data exponentially increases these difficulties due to additional volumes, velocities, and varieties of data and sources which have to be dealt with. Therefore, future research can focus on providing a roadmap or framework for big data management which can encompass the previously stated difficulties. We believe that big data analytics is of great significance in this era of data overflow, and can provide unforeseen insights and benefits to decision makers in various areas. If properly exploited and applied, big data analytics has the potential to provide a basis for advancements, on the scientific, technological, and humanitarian levels.

A literature survey on Big Data Analytics in Service Industry

Source: International Journal of Engineering and Computer Science

Abstract:

The huge blast of information and Internet gadgets has prompted fast approach of Big Data in later past. Administration industry which is a noteworthy client for these Big Data applications will prompt real change to the conveyance process and new bits of knowledge into utilization example and work processes, which thusly will help with new worldwide conveyance models incorporating new innovations and dispersion of work comprehensively. The Service Industry will utilize Big Data for different choices making information framework and making the work process more ideal. The idea of large scale manufacturing lead to Industrial Revolution, likewise Big Data is relied upon to drive new types of financial movement in Service industry with connected human capital, achieving new level of monetary action, development, and development.

Keywords: Big Data, Decision Making, Service Industry, Customer Satisfaction, Data Analytics, MIS, DSS.

The enormous blast of gadgets and information in the following couple of years will make the Big Data has one of the speediest territories of development for IT Industry (CAGR of 27-45% every year evaluated). As Services industry develops in the utilizing Big Data Analytics there will be parcel of Services and Products which are perfectly customized to utilization design comprehended utilizing Big Data investigation which as a part of turn will be utilized to drive and ad lib the conveyance cycle. This will leady to new Global Delivery models which will incorporate new advances and conveyance hubs that are disseminated universally driving development and giving bits of knowledge into marvel which were unexplored with conventional frameworks. The Service Industry will have isolation of building information for investigation by outside administration suppliers yet they will have it translated by inward assets of big business. We feel this is a pattern yet can affirm after some examination. The Big Data Analytics Service Providers will have noteworthy business chances to assemble expansive datasets and determine surmising prompting associations ready to modify and offer administrations and items which will have the capacity to adapt to new requests of business for the Service business.

Market Analysis and Sales Development

Source:

[https://www.academia.edu/6838349/A Project Report On MARKET ANALYSIS AND SALES DEVELOPMENT Submitted By Under the guidance of](https://www.academia.edu/6838349/A_Project_Report_On_MARKET_ANALYSIS_AND_SALES_DEVELOPMENT_Submitted_By_Under_the_guidance_of)

Abstract:

With the explosive growth of information sources available on the World Wide Web, it has become increasingly necessary for users to utilize automated tools to find the desired information resources, and to track and analyze their usage patterns. Association rule mining is an active data mining research area. However, most ARM algorithms cater to a centralized environment. In contrast to previous ARM algorithms, Optimized Distributed Association Rule Mining (ODARM) is a distributed algorithm for geographically spread data sets that aimed to reduce operational/ communication costs. Recently, as the need to mine patterns across distributed databases has grown, Distributed Association Rule Mining (DARM) algorithms have been developed. These algorithms assume that the databases are either horizontally or vertically distributed. In the special case of databases populated from information extracted from textual data, existing D-ARM algorithms cannot discover rules based on higher-order associations between items in distributed textual documents that are neither vertically nor horizontally distributed, but rather a hybrid of the two. Hence, this paper proposes a Distributed Count Association Rule Mining Algorithm (DCARM), which is experimented on real time datasets obtained from UCI machine learning repository.

We are given a large database of customer transactions. Each transaction consists of items purchased by a customer in a visit. We present an efficient algorithm that generates all significant association rules between items in the database. The algorithm incorporates better management and novel estimation and pruning techniques. We also present results of applying this algorithm to sales data obtained from a large retailing company, which shows the effectiveness of the algorithm.

Keywords: Association rule mining, Optimized Distributed Association Rule Mining (ODARM), Distributed Count Association Rule Mining Algorithm (DCARM)

An Application for Sales Data Analysis and Visualization using PYTHON and DJANGO

Source: International Research Journal of Modernization in Engineering Technology and Science

www.irjmets.com

Abstract:

In the meantime, sales of the businesses are rising more and more. Companies want to trace their sales and their advancement. The entire data must be found and stored within the database. They have to see their company's expansion. The company wants to understand where they stand in comparison to different companies. Since this data can be in huge amounts, estimating the sales prediction is nearly difficult. Soon these terms, the physical estimation may become time consuming. Considering this problem, we've proposed the analysis and visualization of the data. Visualization is the graphical depiction of data with the help of graphs, tabulations, charts by which we could realize company sales. Using data visualization, we could form an opinion on a company's sales and sales by different salespeople. So, we've used a web application to integrate both the data analyzed as well as present that data to the end user with a simple user interface.

Keywords: Data Analytics, Data Visualization, Python, Django, Pandas, Matplotlib.

The outcome of the application would be to provide an intuition of the sale of different products in the company. The application would also provide the analytics and visualization of sales by different salespersons in the organization. Using this application, the owner would be able to see daily profit in terms of visualizations. The owner would be able to see maximum profit, minimum profit from a sale, mean profit from all sales, median profit of all sales. The owner would be able to compare sales by different salespeople in the company. Owner can see daily sales of all products and interpret which product was sold in the highest quantity.

Strategies for data analytics projects in business performance forecasting: a field study

Source: Journal of Management Control (2022) 33:241–271
<https://doi.org/10.1007/s00187-022-00338-7>

Abstract:

Data analytics is applied in various fields, including business performance forecasting, but companies struggle with its implementation. Following a cross-sectional field study approach, we make two contributions. First, we elaborate on the central role played by the head controller in generating trust in analytics solutions and thus, making the project successful. Second, we identify three patterns in the way companies plan, implement, and then use data analytics in the context of business performance forecasting. The two successful patterns are the ones that start with a limited but tangible objective (either in term of information precision, or rapidity of processing) that can be expended in a second time.

Keywords: Data analytics · Performance · Forecasting · Field study

From a theoretical perspective, this paper contributes to the debate on the potential radical impact of data analytics on controlling functions. Based on exploratory techniques, the observations provided an initial reading grid for further research in the field. It also validated previously developed concepts for studying performance management and data analytics forecasting regarding information systems implementation.

From a practical perspective, the contributions give managers tools to prepare for the implementation of a digitalization project. They can, at least, serve as a tool for project managers to reflect on and, at best, as guiding principles for the overall project development and implementation. Such tools could also help analyze existing but imperfect projects, or even failed ones, or those about to fail, to improve the situation and get it back on track.

Debating big data: A literature review on realizing value from big data

Source: The Journal of Strategic Information Systems Volume 26, Issue 3, September 2017, Pages 191-209

Abstract:

Big data has been considered to be a breakthrough technological development over recent years. Notwithstanding, we have as yet limited understanding of how organizations translate its potential into actual social and economic value. We conduct an in-depth systematic review of IS literature on the topic and identify six debates central to how organizations realize value from big data, at different levels of analysis. Based on this review, we identify two socio-technical features of big data that influence value realization: portability and interconnectivity. We argue that, in practice, organizations need to continuously realign work practices, organizational models, and stakeholder interests in order to reap the benefits from big data. We synthesize the findings by means of an integrated model.

Keywords: Big data, Analytics, Literature review, Value realization, Portability, Interconnectivity

The current literature on big data value realization is characterized by a limited number of empirical studies and some repackaging of old ideas. We identified six debates central to how organizations realize social and economic value from big data that require attention from future research. Additionally, we identified two features of big data—portability and interconnectivity—that influence how organizations realize value from big data in practice. Finally, we argue that realizing value from big data is the result of continuous interaction between work practices, organizational models, and stakeholder interests, and call for empirical research on cross-level interactions and alignment. Based on future empirical evidence, we as scholars may be able to judge to what extent big data value meets its expectations, both for organizations seeking to strategically benefit from big data, and society as a whole.