BIG DATA IN BUSINESS RESEARCH: A REVIEW OF A DECADE OF RESEARCH

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ABSTRACT

Big Data is a term that is commonly used to describe a variety of concepts, ranging from the collection and aggregation of massive amounts of data to a plethora of advanced digital techniques designed to reveal patterns related to human behaviour. Despite its widespread usage, the term remains conceptually ambiguous. The point of the study is to observe the understanding of the concept of Big Data from the perspectives of researchers in the fields of Business Research in order to determine whether researchers believe currently existing definitions are adequate and to investigate whether a standard discipline-centric definition is possible. While several qualitative reviews have been conducted, there is still a lack of a quantitative and systematic review of big data in business research. Furthermore, based on our findings, we propose several promising directions for future research. As a result, we provide scholars with a systematic understanding of the evolution and long-term roadmap of big data research in business.

Keywords: Business Research, Big-Data, Management.

INTRODUCTION

With the advent of "*big data*" organisations now have unprecedented opportunities to gain and maintain a competitive advantage. In order to capitalise on the strategic business potential embedded in big data, many organisations have begun to renovate or develop new business models, giving rise to the phenomenon of big-data business models. Although big-data business model research is still in its early stages, a significant number of studies on the subject have been published in recent years. Big Data is a buzzword that has crept into our everyday lives. Big Data holds promise of solving most of the world's most complicated issues, from commercial applications to research across multiple fields. Big Data is also popular in most academic disciplines, ranging from social sciences to psychology, geography, digital humanities, and healthcare (Favaretto et al., 2019).

Many researchers have been drawn to the prospect of using increasingly large datasets to reveal patterns of individual and group behaviour, as well as the potentially beneficial application of data analytics. Examples include the development of smarter hospitals, in which predictive analysis of Health Records can identify patients at higher risk for health deterioration or cardiac arrest in real time, and the design of smarter cities projects, which involve the use of aggregated web data, GPS, radio frequencies, and consumer data to improve various aspects of urban living such as transportation, training, and power.

As a result, Big Data has become a commonly used term in the academic setting as a novel and sophisticated research apparatus. But this raises an important question: what exactly is meant by "Big Data"? The study aims to investigate how researchers working with

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cutting-edge digital research projects in psychology and social sciences understand the term Big Data, in order to investigate the key aspects that researchers attribute to Big Data; explore whether researches show existing state definitions of Big Data to be adequate; and investigate whether an overarching and straightforward discipline-centric definition of Big Data in psychological and sociological research is feasible (Schroeder, 2014).

Big Data is not a new concept. Although Diebold admits that it "likely originated in the lunch-table discussions at Silicon Graphics in the middle of the 18th century," its first appearance in the scholarly literature dates back to the early 2000s in statistics and econometrics, where Big Data was used to describe "the explosion in the quantity of accessible and possibly reliable sources, largely the result of recent and unparalleled breakthroughs in data recording and storage technology." Big Data attributes included volume, velocity (high-speed processing), and a wide range of heterogeneous data (Henderson et al., 2013).

Regardless of their differences, these meanings all emphasise that Big Data is made up of large amounts of data from various sources. Big Data is defined by the European Commission as "large amounts of different types of data generated from various kinds of sources, such as people, machines, or sensors." Climate data, satellite imagery, digital photos and videos, transition records, and GPS signals are examples of this data. Personal data: any data relating to an individual, such as a name, a picture, an e-mail address, banking information, posts on social media websites, medical data, or a software IP address, may be included in Big Data (Amit & Zott, 2001).

Even so, our review of the literature shows that studies on how business needs drive BDBM implementation are still underrepresented. Among the notable exceptions in our review sample are and, which sheds light on how BD seeks to transform founded BMs in the financial sector, as well as the role of emerging BDBMs in providing access to financial services to Chinese low-income families and micro enterprises. In this regard, it is important to note that "*while new technologies are frequently important, they haven't ever transformed a sector on their own. What achieves such a transformation is the ability to link a new technology to an emerging market need,*" such as the increasing diversity of customer preferences and the rise in input costs.

The information for this paper was gathered as part of a larger study on the principles of Big Data research. To analyse the data, applied qualitative method was used. The goal of this method is to analyse and report thematic components and trends within the information in order to organise, describe, and interpret the dataset in great detail. As a result, at least two research participants read the transcripts in their entirety and independently analysed them. Thematic elements in the interviews were explored using open ended coding in this first step of analysis. Later, the team members gathered to confront the individual open-ended coding, discuss, and sort the initial themes. This analysis revealed several major themes, including regulation of Big Data research, relatively new challenges, and collaborative effort and inter - disciplinary approaches in digital studies, the knowledge of the term Big Data, and behaviours toward Big Data studies (Chen et al., 2012).

The participants provided a wide range of interpretations of the term, so it was decided to investigate its understanding and definition. Following that, all interviews were analysed for textual units relating to the definition of Big Data as well as gestures of attitudes or opinions about the term's understanding. The units were then divided into sub-codes making reference to various definitions or interpretations of the term Big Data. The first

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author completed this phase, and the second author double-checked it for consistency and accuracy. The themes were improved and systematically sorted after active discussions and comparison between the two researchers. This study is based on a critical review of the literature.

CONCLUSION

The study discovered a general lack of confidence or uneasiness among researchers regarding the use of the term Big Data, which could be attributed to the tendency to recognise Big Data as a changing and advancing cultural phenomenon. Furthermore, the term's current use as a hyped-up buzzword may exacerbate Big Data's conceptual ambiguity. When a new technological phenomenon emerges, such as BDBMs, it is not uncommon to find a plethora of studies describing the "nature of the beast," as we saw in early reports of electronic data exchange, e-commerce, erp system, and virtual teams. And, for the most part, this is also what we find in the current BDBM literature. Since 2014, there has been a significant increase in the number of BDBM studies published. As the BDBM topic matures, so will its theoretical foundation and we hope that the observations and structure deduced from our critical assessment of the BDBM literature will help make future theory and in the area of research development.

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