

Volume 11, Issue 2 June 2023

CONTENTS

The Era of Buiness Intelligence Tools
Mirona Ana Maria Popescu
Digitization of Public Services
Data Analysis for Quality 4.015 Matthew Barsalou, Dănuț Iorga
Consumer Behavior and Motivation26 Dumitru Goldbach
Digitalization and the Perception of Remote Work34 Dana Corina Deselnicu, Valentina Diana Lăcuță, Ramona Vintilă
Sustainable Practices in the Supply Chain
State of the Art in Employee Retention61 Mirona Ana Maria Popescu, Mihaela Andreea Stoian Ciorei



EDITORIAL

The Era of Business Intelligence Tools

In today's world, business data has become an invaluable asset for companies of all sizes and industries and their importance is only expected to grow in the coming years as companies continue to rely on data-driven insights to gain a competitive edge in the marketplace.

Applications for business data have evolved significantly over the past few decades. In the early days of computing, businesses used mainframe computers and custom-built software applications to manage their data. As computing technology evolved and became more affordable, smaller businesses began adopting computer-based systems to manage their data.

Today, the landscape of applications for business data is diverse and constantly evolving as they are being used by organizations worldwide to make informed decisions, improve efficiency and gain a competitive edge. These applications include data analytics, business intelligence, machine learning, predictive modeling, data visualization, and data management. Businesses of all sizes and industries use a variety of applications to manage their data, including Customer Relationship Management (CRM) systems, Enterprise Resource Planning (ERP) software, Business Intelligence (BI) tools, and data analytics platforms. Business data is being used to analyze customer behavior, optimize supply chain management, automate processes, personalize marketing efforts, and more. Additionally, data analysis can help identify areas for improvement and optimize business processes, ultimately leading to increased efficiency and cost savings. With the explosion of data, the demand for professionals skilled in data analysis and management is growing rapidly across all industries.

According to a report by Grand View Research, the global market for business intelligence and analytics software is expected to reach \$55.48 billion by 2028, growing at a CAGR (The Compound Annual Growth Rate) of 9.5% from 2021 to 2028. The use of business applications for data analysis is prevalent across many industries. According to the same survey by consulting company Gartner, the industries with the highest adoption rates of business intelligence and analytics tools in 2021 are healthcare (54%), manufacturing (51%), and retail (49%). Additionally, a report by Zion Market Research found that the financial services sector



is expected to be the largest user of business intelligence and analytics software, followed by healthcare and telecom & IT.

It is important for researchers to study the applications of business data because it provides insights into the latest trends and innovations in the field of data analysis and management. By studying how companies are using data to make strategic decisions, researchers can identify new approaches and techniques that can be used to improve business practices and drive growth. Additionally, research on applications for business data can help identify areas where businesses may be falling behind in their use of data, and guide how to catch up with competitors. This is particularly important in today's data-driven economy, where companies that are slow to adopt data-driven practices risk falling behind their competitors.

Furthermore, research on business data applications can help shed light on the impact of data-driven decision-making on a company's bottom line. By analyzing how companies use data to drive revenue growth, reduce costs, and improve customer satisfaction, researchers can help demonstrate the value of data-driven practices to business leaders and encourage wider adoption of these practices across the industry.

Overall, the increasing adoption of business applications for data analysis highlights the importance of leveraging data to make informed business decisions. With the growth of the global business intelligence and analytics software market and the prevalence of usage across various industries, it is clear that businesses are recognizing the value of using data to drive success.

The changes taking place in business tools require changes in the management of companies. The focus must be on the flexibility of production and people, to follow the flexibility of demand.

Mirona Ana Maria Popescu Senior Editor



ABSTRACTS

Digitization of Public Services

Andreea Barbu, Gheorghe Militaru, Mirona Popescu, Iustina Costea-Marcu University POLITEHNICA of Bucharest, Splaiul Independenței no. 313, Bucharest, Romania

ABSTRACT: With the development of technology and the rising desire for more effective, accessible, and affordable government services, the digitization of public services has become a common trend in recent years. The goal of this paper is to present an overview of Romania's public service digitalization, including its current state, difficulties, and prospective effects on people, governments, and society. In this regard, the authors analysed the United Nations study on the efficiency of electronic government at the international level, the Study carried out by the European Commission on the digital performance of European Union countries, the IMD World Study on digital competitiveness, the National Recovery and Resilience Plan of Romania, and the National Catalog of Public Services. The digitization of government services in Romania has accelerated recently as a result of the nation's initiatives to modernize its public sector, boost transparency, and enhance the effectiveness of public services, and this digitalization approach has to be promoted and adopted not only by the government but also by companies and citizens.

KEYWORDS: digitalization, public services, digital competitiveness, digital connectivity



Data Analysis for Quality 4.0

Matthew Barsalou (1), Dănuț Iorga (2) (1) QPLUS, West Tower, Bahrain Financial Harbour P.O. Box 20705, Manama, Bahrain (2) Geoagri Cadastru, 3-5 Pierre de Coubertin, Bucharest, Romania

ABSTRACT: Industry 4.0 generates massive amounts of data known as big data. Industry 4.0 and big data will have a direct impact on an organization's quality-related business data and the business applications used to analyze the data. However, the majority of the available literature on Quality 4.0, the quality-related side of Industry 4.0, pertains to Quality 4.0 and organizations and 4.0. This paper seeks to understand organizational workforce readiness for the analysis of Industry 4.0 quality-related data by assessing Quality 4.0-related keywords in a quality practitioner journal. The identified keywords were clustered into related categories and the categories were analyzed using a Chi-square Goodness of Fit test to determine if there was a statistically significant difference in the number of occurrences of the keyword terms. This research has found that career-related aspects of Quality 4.0 are a common topic in the practitioner literature and this research can serve as a basis for further research, such as a survey of quality practitioners in the industry. Furthermore, this research has found that upskilling of the workforce will be needed for Quality 4.0 so that organizations can properly use the business applications needed to analyze Industry 4.0-driven business data.

KEYWORDS: big data, workforce development, Quality 4.0.



Consumer Behaviour and Motivation

Dumitru Goldbach University of Economic Studies, 6 Romana Square, Bucharest, Romania

ABSTRACT: Consumer buying behaviour is a dynamic area characterized not just by individuals' ever-changing needs, but also by the sum of the actions they take when choosing to buy a particular good or brand. Consumer motivation could be strongly connected to socioeconomic, to one's own experience and memories, to education, but also the perception and attitude towards consumption trends. This paper expands on the concept of motivation in purchasing behavior and the degree of its influence on the decision-making process. Motivation has been defined as the satisfying of primary and higher needs to achieve the desired level of satisfaction. Lack of motivation can lead to a variety of bad experiences, such as a lack of information or access to information, a scarcity of resources, or an inability to adjust to changes in the external environment. Endogenous and exogenous variables can influence motivation, which can address utilitarian, aesthetic-emotional, social, or situational functions. In the suggested cognitive model, the current research addresses two major typologies of motivations: hedonistic, which is linked with a state of joy and pleasure, and utilitarian, which is associated with personal experiences, the quality-price ratio, and real consumption, among other things.

KEYWORDS: consumer behavior, marketing, motivation, buying



Digitalization and the Perception of Remote Work

Dana Corina Deselnicu (1, 2), Valentina Diana Lăcuță (3), Ramona Vintilă (4)

- (1) University POLITEHNICA of Bucharest, Splaiul Independenței no. 313, Bucharest, Romania
- (2) Academy of Romanian Scientists, 54 Splaiul Independenței, Bucharest, Romania
- (3) Axsys Business Technologies SRL, 10 Bucuresti Nord Avenue, Voluntari, Romania
- (4) Astra Consulting Group, Place Prestige 400, Boulevard Saint-Martin O, Laval, Canada

ABSTRACT: Globalization is characterized by continuous development, with a focus on digitalization, which introduced new forms of employment and organization on the labor market, considering the flexibility to the needs and interests of all parties involved, including employers, employees, as well as the unemployed. Today's growing number of jobs rely heavily on remote working, and this trend is predicted to continue to grow in the future. The objective of this paper was to identify the preferences of young people regarding digitalization and new forms of employment, referring both to the advantages and the impact on their professional performance. The results show that the main forms of remote work adopted by Romanian employees were working from home and telework, followed by portfolio work. The main advantage perceived by young people who worked remotely consisted of the increased balance between personal and professional life, followed by the benefit of freedom in their projects at work. The disadvantages indicated by the respondents were the lack of communication, isolation, or even disconnection from their specific attributions. Nevertheless, digitaliza-tion is considered to be developing at a steady pace, supporting the remote working method for most companies in Romania.

KEYWORDS: remote work, digitalization, young people, employees



Sustainable Practices in the Supply Chain

Ahmed Ali (1), Nishanth Ranga (1), Mahmoud Barakat (2), Ahmed Eid (2), Ahmed Barakat (2), Tarek Madkour (2)

 Universität Duisburg-Essen, 1 Lotharstrase Duisburg, Nordrhein-Westfalen, Germany
Arab Academy for Science Technology and Maritime Transport, 9 Gamal Abd Al Naser, Alexandria, Egypt

ABSTRACT: The concept of sustainability has become widely expanded in today's business world. Mainly, sustainability in supply chain management has drawn the attention of a wide range of industries, including micro-scale, medium and macro industries. Sustainable supply chain management (SSCM) has been proven advantageous in many industries from time to time and also in daily operations. The SSCM not only help the industries but also plays a vital role in enhancing customer relationship and providing benefits towards economic, environmental and social aspects. The main aim of this research is to understand the concept of sustainability and supply chain management in manufacturing industries and how sustainability can impact supply chain management performance. This research explores the drivers of sustainability and the impact of the indicators on supply chain management, such as cost, quality, flexibility, time and stakeholder involvement in sustainability (Economic, Social and Environmental factors). In this research, a semi-structured interview will be used. Overview information will be collected first, and then a single interview case study would be formulated. Based on the results of the interviews and literature reviewed, a conclusion on the impact of sustainability performance on supply chain management performances would be illustrated.

KEYWORDS: SSCM (Sustainable supply chain man-agement), TBL (Triple bottom line)



State of the Art in Employee Retention

Mirona Ana Maria Popescu, Mihaela Andreea Stoian Ciorei University POLITEHNICA of Bucharest, Splaiul Independenței no. 313, Bucharest, Romania

ABSTRACT: Employee retention is a critical factor for the success of any organization, and retaining talented employees has become an increasingly challenging task for employers worldwide. In recent years, the business world has witnessed significant changes, including a global pandemic, new technologies, and an increasingly competitive job market. To address these challenges, employers must develop effective employee retention strategies. This literature review aims to provide an overview of the current research on employee retention, focusing on the main methods used by companies to retain their employees. The review is important for organizations seeking to develop effective employee retention strategies

in the ever-changing business landscape. By synthesizing and analyzing the latest research, this review can help organizations better understand the most effective methods to retain their valuable employees.

KEYWORDS: employee turnover, retention strategies, employee engagement