

## The influence of social media, big data, and data mining on the evolution of organizational behavior: Empirical study in Jordanian telecommunication sector

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### CHRONICLE

### ABSTRACT

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The aim of this study was to evaluate the impact of social media, big data, and data mining on the development of organizational behavior within the telecommunications industry in Jordan. The main objective of this study was to investigate the effects of technological components on the alteration of organizational behavior in the communications sector of Jordan. To accomplish this objective, a thorough empirical investigation was undertaken, encompassing the collecting of data from key stakeholders within the telecommunications sector in Jordan. A sample size of 412 participants, encompassing people from diverse roles within the communications sector, was chosen for the purpose of this study. The participants' replies and perspectives were gathered via the administration of surveys and conducting interviews, resulting in a comprehensive data set suitable for analysis. This study investigated the intricate relationship between the utilization of social media, the application of big data analytics, and the implementation of data mining techniques in influencing the dynamics of organizational behavior. The study's results underscored the substantial impact that social media platforms have on communication patterns and collaboration within telecommunication firms. Furthermore, the utilization of big data analysis has emerged as a significant catalyst for the enhancement of informed decision-making processes, exerting influence on diverse facets of organizational behavior, including strategic planning, employee engagement, and customer interactions. Data mining techniques have been identified as having a crucial function in extracting significant patterns and trends from extensive datasets, hence helping to the improvement of organizational learning and adaptation. The research findings indicated that the incorporation of social media, big data, and data mining technologies had a beneficial effect on the development of organizational behavior within the telecommunications industry in Jordan. The findings underscore the importance for enterprises to proactively utilize these technologies to cultivate a work environment that is characterized by increased agility, responsiveness, and collaboration. This study provides significant contributions to the subject of organizational behavior by examining the impact of social media, big data, and data mining within the specific context of the telecommunication sector in Jordan. The research sheds light on the transformative consequences of these technological advancements. The consequences of these findings have broad relevance for organizational leaders, politicians, and researchers, serving as a basis for further investigations in the dynamic realm of technology-driven organizational behavior.

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## 1. Introduction

One of the most important factors in determining the course of organizational behavior is the incorporation of cutting-edge technologies, which has become increasingly important in the quickly changing landscape of organizational dynamics (Ortiz & Roser, 2023). Among these transformative forces, social media, big data, and data mining stand out as catalysts that have a substantial impact on how businesses function, how they communicate with one another, and how they adapt to the complexities of modern business settings. This study delves into the specific context of the Jordanian telecommunications business to conduct an in-depth investigation on the impact that social media, big data, and data mining have had on the development of organizational behavior within the Jordanian telecommunications sector (Ali et al., 2023). A paradigm shift has occurred in the way that companies understand and utilize technology because of the arrival of the digital era (Lee et al., 2023). The dynamics of both internal relationships and external participation inside organizations have been altered because of the proliferation of social media platforms as conduits for communication and cooperation. While this is happening, the development of big data and data mining technology has provided organizations with capabilities that have never been seen before. These capabilities include the ability to analyze huge datasets, extract useful insights, and make decisions based on the data (Bi et al., 2023). The convergence of social media, big data, and data mining creates a nexus that not only molds the behavior of organizations but also reimagines the paradigms that have been in place for a long time. This nexus opens new opportunities for operational efficiency, strategic decision-making, and adaptive resilience. The influence of social media, big data, and data mining has grown more obvious, transforming the way in which organizations work, connect with one another, and adapt to the intricacies of their different industries. A comprehensive investigation of the myriad ways in which these technology components influence the organizational behavior of entities operating within the Jordanian telecommunications sector is the focus of this empirical study (Khan & Shaheen, 2023). Since businesses are working hard to keep their competitive edge and improve their overall performance, the implementation of cutting-edge technologies has become of primary importance. It is possible that the traditional paradigms of organizational behavior could be rethought through the strategic incorporation of social media, big data analytics, and data mining approaches (Shu & Ye, 2023). This study focuses exclusively on the telecommunications sector in Jordan, considering the one-of-a-kind difficulties and opportunities that are present within this continuously evolving business (Xu et al., 2023). The platforms of social media have developed as significant instruments for communication and collaboration, which have the ability to influence both the internal dynamics and the outward interactions that occur within businesses (Gupta et al., 2023). At the same time, big data analysis and data mining techniques offer capabilities that have never been seen before for extracting valuable insights from massive datasets (Tsui et al., 2023). This enables informed decision-making and proactive adaptation to changes in the market (Khang et al., 2023). It is important to note that the empirical inquiry includes a wide range of participants from the Jordanian telecommunications industry, each of whom is responsible for a different function and obligations. It is planned to collect data by means of surveys and interviews to conduct an in-depth investigation of the dynamic relationship that exists between the utilization of social media platforms, big data analytics, and data mining tools in the development of organizational behavior. The significance of this study resides in the fact that it has the potential to unearth not just the individual affects that social media, big data, and data mining have on organizational behavior, but also the synergy and interconnection of these components (Grewatsch et al., 2023). This empirical study is set against the backdrop of the Jordanian telecommunications industry, which serves as an engaging and relevant setting (Graebner et al., 2023). The telecommunications industry in Jordan is illustrative of the broader difficulties and opportunities that are inherent in an environment that is driven by technology (Bernhard et al., 2023). This sector is an essential component of the country's infrastructure (Dess et al., 2024). The special characteristics of this industry, which are influenced by elements such as the dynamics of the market, regulatory frameworks, and consumer habits, offer a unique context in which to investigate the relationship between the progression of technological developments and the evolution of organizational behavior (Lali et al., 2023). For businesses to keep their competitive edge and improve their overall performance, it is now absolutely necessary for them to implement cutting-edge technologies (MacIntosh et al., 2023). Recognizing the importance of this matter, companies operating in the field of telecommunications in Jordan have begun the process of incorporating social media, big data analytics, and data mining tools in a strategic manner (Gravina et al., 2023). The objective of this research is to investigate the influence that these technologies have on the behavior of organizations, with the goal of gaining insights that are not only pertinent to the telecommunications industry in Jordan, but also contribute to a more comprehensive knowledge of the role that technology plays in determining the dynamics of organizations (Jiang et al., 2023).

This article is organized in such a way that it will provide a full assessment of the influence that social media, big data, and data mining have on organizational behavior in the Jordanian telecommunications sector. Following this, the following sections will go into the theoretical basis of these technologies and how they interface with organizational behavior. The methodology that was utilized in the empirical inquiry will be described in detail, and then the findings will be subjected to a comprehensive analysis and interpretation. By doing this research, we hope to make a significant contribution to the field by providing vital insights that shed light on the complex interaction that exists between technology and organizational behavior. This will pave the way for more informed strategies and practices in the ever-changing landscape of the Jordanian telecommunications industry. In the following sections, this inquiry will go into previous studies in order to lay a foundation for the current research and detail the technique that was utilized in the process of data gathering. A full investigation into the impact of social media, big data, and data mining on the development of organizational behavior within the Jordanian telecommunications industry will be presented in Section 5, which will also include the presentation of the findings, as well as the analysis and interpretation of those findings.

## 2. Literature Reviews

### 2.1 Social Media

The rise of social media as a catalyst for beneficial improvements in organizational behavior and strategic management can be attributed to the pervasive reach and dynamic properties of social media. To develop communication and collaboration among members of a team, social media platforms serve as an effective instrument within the field of organizational behavior (Lim & Rasul, 2022). Real-time interactions, which contribute to a workforce that is more connected and engaged, are made possible by the instantaneous and easily accessible nature of these platforms, which break down traditional communication barriers (Vandenbosch et al., 2022). Through the exchange of ideas, the provision of feedback, and the development of a sense of community, teams can improve the overall cohesion of the organization (Yu et al., 2022). In addition to its role in internal communication, social media also plays a significant part in the way that organizations are seen by the outside world (Orben et al., 2022). The public image, the reputation of the business, and the relationships with stakeholders can all be positively impacted by an online presence that is well-managed and strategically planned.

Organizations that make active use of social media as a component of their strategic management strategy could establish connections with their audience that are both transparent and authentic. Furthermore, this helps to increase the alignment of individual and collective behaviors with the values and goals of the business, which in turn contributes to the development of a positive organizational culture (Ortiz & Roser, 2023). The ability of social media to give a variety of real-time data and insights is a clear indication of the influential role that social media plays in strategic management. To better inform their strategic decision-making processes, organizations could utilize the huge amounts of information that are generated on these platforms (Ali et al., 2023). With the help of social media analytics, businesses can analyze market trends, comprehend the preferences of customers, and keep track of the activities of their competitors (Lee et al., 2023). This method, which is driven by data, improves the process of strategic management by enabling firms to quickly adjust to shifting market conditions and to make choices that are founded on accurate information and are in line with their overarching objectives (Popat & Tarrant, 2023). In addition, social media platforms provide businesses with a one-of-a-kind venue in which they may demonstrate their dedication to corporate social responsibility (CSR) and sustainability (Saura et al., 2023). Organizations are able to promote their corporate social responsibility (CSR) activities, environmentally friendly practices, and community involvement efforts effectively through the strategic utilization of social media (Hammouri et al., 2022a). The organization's reputation is improved as a result of this, and it also corresponds with the growing desire from customers for business practices that are socially responsible and morally motivated (Lim & Rasul, 2022). On the other hand, a sophisticated strategy is necessary to successfully integrate social media through strategic means into organizational behavior and management (Popat & Tarrant, 2023). There are a number of possible issues that organizations need to carefully negotiate, including concerns around privacy, the possibility of receiving false information, and the requirement for a consistent and genuine online voice (Lee et al., 2023). In order to ensure that actions conducted online contribute effectively to the improvement of organizational behavior and strategic management, a robust social media strategy should be aligned with the organization's broader aims (Ali et al., 2023). It may be concluded that the influence of social media on the behavior of organizations and the management of strategic initiatives is significant and transformative. The strategic utilization of these platforms has the potential to result in enhanced internal cooperation, strengthened external ties, informed decision-making, and a favorable culture within the firm (Ortiz & Roser, 2023). It is still crucial for enterprises to recognize and capitalize on the possibilities of social media to achieve long-term success as they continue to navigate the digital landscape (Hanandeh et al., 2023).

### 2.2 Big Data

The advent of big data has revolutionized modern business by improving decision-making, streamlining operations, and assisting companies in navigating the intricate global marketplace (Raed et al., 2023a). There are new possibilities and problems brought about by this data-centric paradigm shift that have far-reaching effects on strategic management and organizational behavior. Big data is essential for optimizing labor dynamics and understanding organizational behavior (El Khatib et al., 2022). Organizations may learn a lot about employee behavior in the workplace from the mountain of data that employees create, which includes everything from communication habits to performance indicators. Finding ways to boost teamwork, dialogue, and morale can be as simple as analyzing these trends. To top it all off, big data makes it easier to create tailored methods of personnel management, which in turn helps businesses find, train, and keep the employees they need to succeed (Ali et al., 2022). A more welcoming work environment is another benefit of using big data analytics to the field of organizational behavior (Rohini et al., 2022). Metrics related to diversity and inclusion can help businesses pinpoint problem areas. An inclusive and welcoming work environment where people from all walks of life can work together in harmony is easier to achieve with the help of this data-driven strategy. Organizations may also track employee mood in real-time with big data, which lets them respond proactively to issues and boost morale (Deepa et al., 2022).

From the vantage point of strategic management, big data enables firms to make quicker and better decisions (Ikotun et al., 2023). The capacity to react quickly to changes in the market is crucial in today's dynamic business climate (Guo & Chen, 2023). Organizations may quickly adjust their plans to take advantage of new possibilities or reduce risks with the help of real-

time insights provided by big data analytics (Al-Dmour et al., 2023). In fields where quick thinking and action are the keys to success, this nimbleness is essential (Lutfi et al., 2023). In addition, risk management tactics are improved by big data. Organizations can discover possible risks and vulnerabilities by evaluating real-time and historical data. This enables preventive measures to limit the impact of unforeseen events (Bi et al., 2023). More robust and long-lasting company plans can be created using this risk-aware approach (Raed et al., 2023b). The use of big data analytics simplifies strategic planning, which has always been a complicated and multi-faceted process. One component of big data, predictive analytics, helps businesses better anticipate trends. In order to position the firm strategically in the competitive landscape, coordinate resources, and shape long-term objectives, this kind of foresight is priceless (El Khatib et al., 2022). You can use big data to make educated strategic decisions by forecasting market demands, knowing client preferences, or projecting developments in your business (Bi et al., 2023). Another field that has been greatly affected by big data is supply chain management (Al-Dmour et al., 2023). A thorough comprehension of numerous elements, including demand trends, inventory levels, and supplier performance, is necessary for supply chain optimization. Organizations may optimize their supply chain processes, cut costs, and enhance operational efficiency with the use of big data analytics, which allows for the real-time monitoring of these elements (Ali et al., 2022). When it comes to customer relationship management (CRM), big data is changing the game (Shi, 2022). Now more than ever, businesses can use customer data to tailor their marketing, develop better products, and provide better service to their clients. An advantage for businesses comes from being able to track consumer actions and preferences; this lets them adjust their products and services to match the changing demands of their demographic (Karatat et al., 2022).

### 2.3 Data Mining

A game-changer in the field of business analytics, data mining allows companies to glean actionable insights from massive databases (Hammouri et al., 2023). Discovering previously unseen patterns, trends, and correlations in massive datasets is the goal of this method (Behrad & Abadeh, 2022). Data mining has a significant effect on strategic management and organizational behavior by improving operational efficiency, influencing decision-making, and encouraging a more proactive and knowledgeable approach to resource management (Yu et al., 2022). Data mining is crucial in the field of organizational behavior for understanding trends in metrics for performance, communication dynamics, and employee behavior. A better knowledge of the workforce's operations can be achieved by examining these trends (Han et al., 2022). Factors that lead to a pleasant work environment, like strong morale, open communication channels, and productive teamwork, can be discovered through data mining (Khalaf et al., 2022). Data mining provides valuable insights that may be used to generate focused tactics that improve collaboration, increase employee engagement, and establish a productive and fulfilling work environment (Rehman et al., 2022).

In addition, businesses can tailor their personnel management strategies with the use of data mining. Better strategic workforce planning, individualized training, and more precise recruitment are all made possible by analyzing data on employees' preferences, abilities, and performance. By tailoring each employee's experience and training to their specific needs, this method helps businesses hold on to their best employees and achieve their objectives (Shu & Ye, 2023). Data mining also has a major effect on strategic management (Chen et al., 2023). The challenge for firms in today's fast-paced and ever-changing business climate is to make well-informed decisions quickly (Khan & Shaheen, 2023). Data mining equips users with the means to examine both past and present data, yielding insights that improve long-term planning (Gupta et al., 2023). This is of the utmost importance for companies that want to stay ahead of the competition by being nimble with the times (Tsui et al., 2023). By analyzing varied information, data mining improves risk management techniques by revealing possible vulnerabilities and dangers (Khang et al., 2023). In order to build more resilient business strategies, organizations can take a proactive approach to risk management, which reduces the impact of unexpected events (Xu et al., 2023). This cautious method makes sure that plans for the future can handle anything the outside world throws at them (). As a multi-stage process, strategic planning is made easier using data mining. An area of data mining known as predictive analytics allows businesses to foresee potential trends (Gupta et al., 2023). Strategic positioning, efficient resource coordination, and alignment of long-term aims with market demands are all aided by this kind of foresight (Shu & Ye, 2023). Data mining for predictions allows businesses to take the initiative to improve their standing in the market (Tsui et al., 2023). One important part of strategic management is supply chain management, and data mining can help with that (Khan & Shaheen, 2023). Optimization of supply chain processes is possible through analysis of data pertaining to demand patterns, inventory levels, and supplier performance. Data mining's real-time insights allow for more responsive and flexible supply chain management, which in turn reduces costs and improves operational efficiency. Companies' understanding and interaction with customers is revolutionized by data mining in customer relationship management (CRM) (Rehman et al., 2022).

Businesses can learn more about their customers' tastes, habits, and buying habits through data analysis, which in turn allows them to craft more targeted advertisements. Businesses can use data mining to better satisfy their customers by adapting their offerings to their changing demands (Khalaf et al., 2022). This focus on the consumer not only encourages loyalty but also helps the firm develop in the long run (Behrad & Abadeh, 2022). Data mining, in the end, is a game-changer when it comes to proactive management and organizational behavior. Organizations may improve their performance, gain a better grasp of internal dynamics, and make better decisions when they extract useful insights from data. Organizations that want to survive and prosper in today's fast-paced, highly competitive business world will need to include data mining into their processes more and more as technology keeps becoming better (Yu et al., 2022).

## 2.4 Strategic Management

By providing direction for decision-making and molding long-term goals, strategic management is an essential component of any successful firm (Hammouri et al., 2009). Social media, big data, and data mining are just a few examples of how new technology have changed the way strategic management is done in today's corporate world (Ricardo et al., 2022). These innovations have also brought forth exciting new prospects for companies. Organizational strategies have been radically altered by the rise of social media. In recent years, social media sites such as LinkedIn, Facebook, and Twitter have grown in importance as resources for fostering relationships with clients and expanding brand awareness. Organizations may engage with their audience, get input, and adjust strategy in real-time with social media (Grewatsch et al., 2023). Companies may now improve their public image, manage their reputation, and set up open communication channels by integrating social media tactics into their strategic management plans (Bernhard et al., 2023). A flexible and customer-centric management style can be fostered when firms use social media information to connect strategic goals with shifting consumer preferences (Dess et al., 2024). With big data, companies now have access to massive amounts of information like never before, which is revolutionizing strategic management (Lali et al., 2023). Businesses may learn a lot about their customers, the market, and internal processes by analyzing big data (MacIntosh et al., 2023). Organizations now use analytics to predict market demands, find development possibilities, and optimize resource allocation, as a result, data drives strategic decision-making. Decisions can be based on correct information and in line with company goals thanks to big data analytics, which enables a more responsive and agile approach to strategic management. When used in conjunction with strategic management, data mining can sift through massive information in search of previously unseen trends, correlations, and patterns (Kumar, 2022). This method helps businesses decipher the web of connections between their activities and the outside world (Fauzi et al., 2022). Strategic managers can benefit from data mining because it allows for a more complex comprehension of organizational behavior, which in turn helps to identify the elements that impact engagement, teamwork, and performance (MacIntosh et al., 2023). Data mining allows firms to improve their collaboration, personnel management, and overall effectiveness by obtaining actionable information.

The integration of data mining, social media, and big data offers a comprehensive method for managing strategies (Palmié et al., 2023). Businesses can use data mining to uncover subtle trends, big data analytics to glean insights, and social media to get real-time feedback (Bernhard et al., 2023). Market trends, consumer expectations, and internal procedures can all be better understood with the help of these integrated technologies (Grewatsch et al., 2023). Rather than being a fixed procedure, strategic management is now an iterative loop that changes over time to accommodate new circumstances. Finally, strategic management's development via data mining, social media and big data has brought in a new age of flexible, well-informed decision-making. To remain competitive, customer-focused, and responsive to new possibilities and threats, organizations should include these technologies into their strategic management processes. Organizational success in the digital era will be heavily influenced by the degree to which strategic management and developing technologies work together (Ricardo et al., 2022). This is especially true as these technology trends progress.

## 2.5 Organizational Behavior

A company's performance hinges on organizational behavior, which defines and governs the ways in which employees work together to achieve organizational objectives (Gravina et al., 2023). Technologies like data mining, social media, and big data have brought a new era of opportunities and insights to the modern corporate world by drastically altering organizational behavior (Jiang et al., 2023). A company's culture, the dynamics of the workplace, and overall productivity are all profoundly influenced by organizational behavior, which also guides good decision-making (Wang et al., 2023). The revolutionary power of social media has changed the way businesses operate by influencing how workers interact with one another and the information they share (Hammouri et al., 2022b). An increasingly linked and engaged workforce is a direct result of the widespread use of social media platforms such as LinkedIn, Facebook, and Twitter for instantaneous communication, idea sharing, and team building. The introduction of big data has completely altered the way in which companies comprehend and control their own internal dynamics (Putra & Ali, 2022). Organizations can learn a lot about what drives organizational behavior by poring over data sets that include information about workers' performance, communication habits, and general conduct. By utilizing big data analytics, executives are able to make evidence-based decisions that have a favorable effect on workplace dynamics and employee happiness. Organizations can improve their people management and employee development plans by using this data-driven approach to discover patterns, trends, and opportunities in organizational behavior.

When it comes to organizational behavior, data mining is a game-changer for discovering previously unseen connections and patterns in massive datasets (Hammouri et al., 2023a). Organizations can gain a better grasp of the intricate network of relationships impacting organizational behavior by analyzing a variety of data sources, such as employee feedback, engagement measurements, and performance indicators. Organizations can use data mining to gain actionable insights that help them improve leadership, communication, and teamwork (Gravina et al., 2023). This, in turn, creates a work environment that is in line with the organization's values and goals (Wang et al., 2022). A comprehensive strategy for influencing organizational behavior can be achieved through the combination of data mining, social media, and big data. By allowing for instantaneous feedback and contact, social media platforms encourage an atmosphere of candor and transparency in the workplace (Tang et al., 2022). With the use of big data analytics, leaders may gain a detailed understanding of employee dynamics and use that knowledge to

make strategic decisions that benefit the firm. By revealing complex patterns and trends, data mining enhances these endeavors, enabling businesses to proactively tackle obstacles and take advantage of opportunities that impact organizational behavior. Finally, it is impossible to exaggerate the significance of organizational behavior, which has undergone a radical transformation because of the rise of social media, big data, and data mining. Organizations that want to foster a healthy work environment, increase employee happiness, and adapt to changing business environments must embrace these technologies. Achieving long-term success in today's dynamic business environment will depend on how well these developing technologies integrate with organizational behavior (Lian et al., 2022).

## 2.6 Jordanian Telecommunication Sector

A driving force in Jordan's economic growth, the country's telecommunications industry is a global leader in technological innovation. This ever-changing business stands to benefit greatly from the strategic management and organizational behavior changes that could result from incorporating social media, big data, and data mining. These changes could lead to more efficiency, new innovations, and better consumer experiences (Mahmoud, 2022). There has been a dramatic shift in the strategic environment of Jordan's telecom industry due to the influence of social media. There are direct avenues for interaction and connection with clients on social media sites like Instagram, Twitter, and Facebook. In order to better respond to market developments and consumer preferences, telecommunications businesses can use social media to gather real-time client input. Branding, reputation management, and the development of hyper-specific advertising campaigns are all made possible via the incorporation of social media into strategic management (Alnadawi et al., 2022). The telecommunications industry in Jordan relies heavily on big data to inform better strategic decisions. Insights into demand forecasting, resource optimization, and service delivery enhancements can be gleaned from the mountain of data produced by consumer interactions, network performance, and market trends. Telecommunications firms can stay ahead of the competition by using big data analytics to adapt their strategies to customers' changing needs.

By exploring complex patterns in large datasets, data mining enhances strategic management. Data mining has the potential to reveal associations in the telecom industry between consumer happiness, network performance, and service usage trends (Khrisat et al., 2023). Data mining enables businesses to optimize network architecture, improve service quality, and create focused marketing campaigns by collecting actionable insights. When it comes to telecom firms, social media has a profound effect on organizational behavior since it changes the way people communicate. Internal resources such as LinkedIn and discussion boards encourage staff to be open and work together in a collaborative environment. From an external perspective, social media enables companies to highlight their company culture, which in turn improves their employer brand and attracts top personnel. Organizational behavior is impacted by big data since it offers a data-driven method for managing talent and developing employees (Hammouri et al., 2023b). To enhance employee engagement and happiness, telecommunications businesses can customize organizational strategies by analyzing performance data, feedback, and training outcomes. Workforce planning and skill development are two other areas where big data helps with evidence-based decision-making (Alnadawi et al., 2022). Organizational behavior in the telecommunications sector is influenced by a complex web of relationships, which data mining helps to decipher. Data mining can find trends in cooperation, leadership efficacy, and employee happiness by examining interactions between workers. Organizations can take a proactive approach to addressing difficulties and enhancing their overall effectiveness using strategies. Strategic management and organizational behavior in Jordan's telecommunications sector are being influenced by the confluence of social media, big data, and data mining, which signifies a new era of transformation. Businesses can better adapt to the ever-changing telecom market as they adopt these technologies, which allow them to be more customer-centric, flexible, and responsive (Mahmoud, 2022). To maintain growth, innovation, and competitiveness in Jordan's telecommunication sector, it is vital to continue integrating these advancements (Salah et al., 2023).

## 3. Research Methodology

The purpose of this study is to investigate the ways in which corporate conduct in Jordan's telecommunications industry has been influenced by the proliferation of social media, big data, and data mining. With the help of a Likert scale, the participants evaluated significant research ideas that were published on Google Drive. On this scale, a response range of 1 denotes a strong disagreement, and a response range of 5 indicates a strong agreement. The method that we utilized to evaluate our hypothesis was known as Partial Least Squares (PLS) (Hair Jr et al., 2021). Following the completion of the data cleaning process, we concluded that 412 of the participant replies were appropriate for further discussion and analysis in relation to the hypotheses of our study. Notably, the data that was obtained demonstrated a remarkable degree of precision that exceeded the estimates that were anticipated. This was accomplished by a tenfold improvement in accuracy.

## 4. Research Results

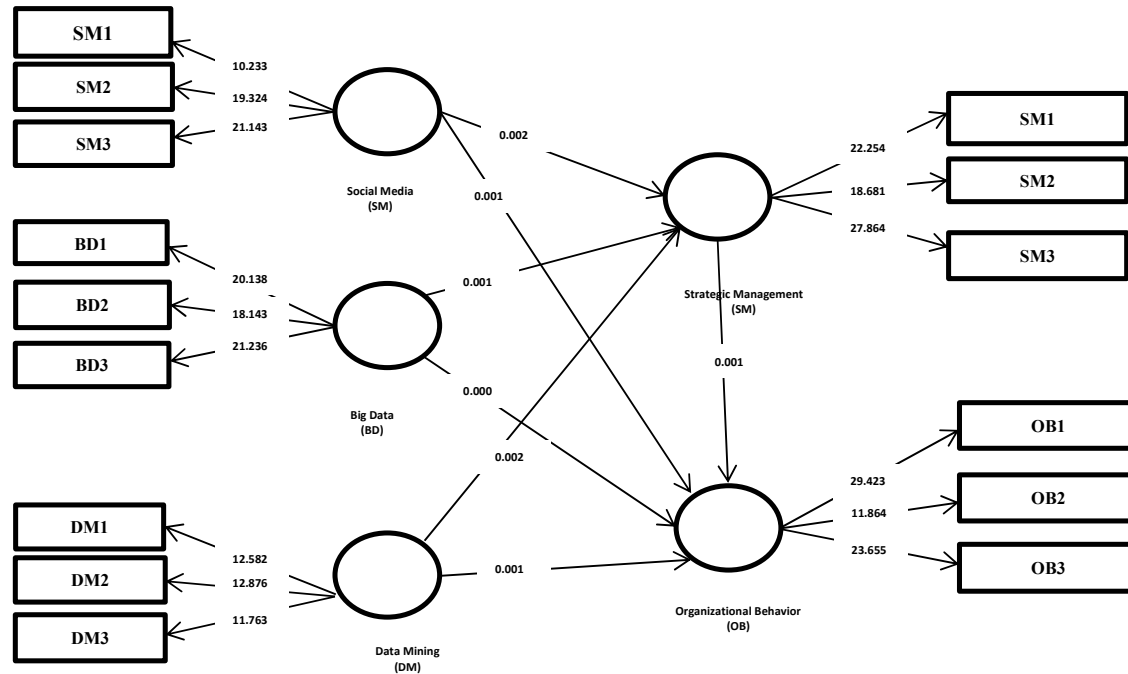
Several experiments were carried out in order to gather information regarding the validity and reliability of the measuring method. Cronbach's alpha was utilized by the researchers in order to accomplish the evaluation of the survey's internal consistency and reliability. In accordance with the recommendation made by Hair et al. (2021), we decided to utilize a cutoff value of 0.70. Table 1 contains the Cronbach's alpha coefficients for each of the scale's subscales, which we have supplied for your perusal. When evaluating the convergent validity of a measurement instrument, it is recommended by Fornell and

Larcker to use a critical threshold of 0.70 or higher for the construct reliability (CR) test and a threshold of 0.50 or higher for the average variance extracted (AVE) test. Both thresholds should be considered. The failure rates of the various components as well as the total failure rates that are displayed in Table 1 do not meet the standards. It was determined that strong linkages were present when the path loadings for each component were greater than 0.50. The results are presented in the table that follows, which corresponds to the evaluation of the validity of the hypothesis within the context of the study paradigm.

**Table 1**  
Reliability and Validity Test

Code	Variable	Factor's Loading	VIF
<b>Social Media (SM)</b> (Cronbach's Alpha: 0.440, CR: 0.652, AVE: 0.560)			
SM1	User Engagement	0.323	1.263
SM2	Reach and Impressions	0.432	1.187
SM3	Sentiment Analysis	0.567	1.681
<b>Big Data (BD)</b> (Cronbach's Alpha: 0.461, CR: 0.664, AVE: 0.632)			
BD1	Volume	0.485	1.562
BD2	Velocity	0.451	1.578
BD3	Variety	0.448	1.892
<b>Data Mining (DM)</b> (Cronbach's Alpha: 0.388, CR: 0.548, AVE: 0.674)			
DM1	Patterns and Trends	0.455	1.573
DM2	Algorithms	0.321	1.753
DM3	Accuracy and Evaluation metrics	0.388	1.852
<b>Strategic Management (SM)</b> (Cronbach's Alpha: 0.485, CR: 0.644, AVE: 0.655)			
SM1	Strategic Planning	0.326	1.226
SM2	Resource Allocation	0.543	1.661
SM3	Organizational Performance	0.587	1.358
<b>Organizational Behavior (OB)</b> (Cronbach's Alpha: 0.583, CR: 0.652, AVE: 0.720)			
OB1	Employee Motivation	0.516	1.855
OB2	Communication patterns	0.592	1.759
OB3	Organizational Culture	0.643	1.840

Taking into consideration the table that came before it, which provided evidence of a positive assessment of the research model, we are now able to go on to an analysis of the research hypotheses which we have developed.



**Fig. 2.** Research Bootstrapping Results

The research hypotheses have been successfully validated in their entirety, as demonstrated by the diagram that has been presented, which depicts the direct influence of the correlations that exist among the variables that are being studied.

**Table 2**  
Discriminant Validity

Construct	ES	EI	SCM	SSCM	BOP
<b>ES</b>	0.165				
<b>EI</b>	0.154	0.219			
<b>SCM</b>	0.241	0.215	0.245		
<b>SSCM</b>	0.376	0.128	0.279	0.244	
<b>BOP</b>	0.182	0.145	0.381	0.250	0.220

The Fornell-Larcker criterion (Fornell & Larcker, 1981) was employed in order to establish discriminant validity. This criterion is satisfied when the correlations among the components are lower than the average variance extracted (AVE) from those components. The square roots of average variances extracted (AVEs), which are emphasized in bold, exhibit smaller magnitudes compared to component correlations. This observation serves as evidence supporting the soundness and effectiveness of discriminant analysis. Following the completion of the clearance process for the measurement model, the structural model was examined, which led to an  $R^2$  score of 50.1%. In accordance with the criteria established by Hair et al., the value of  $R^2$  is greater than 25%. The occurrence of low p-values is further demonstrated in Table 3, which indicates that all hypotheses are supported by the presented evidence. Our study's findings suggest that there exists a statistically significant correlation between social media and both strategic management and organizational behavior. The coefficients ( $\beta = 0.231$ ,  $p < 0.05$ ) and ( $\beta = 0.229$ ,  $p < 0.05$ ) demonstrate that this correlation is statistically significant. It can be concluded that Hypotheses 1 and 2 are supported by these observations. In a similar line, it is worth noting that big data has a significant influence on both strategic management and organizational behavior ( $\beta = 0.238$ ,  $p < 0.05$ ) and ( $\beta = 0.247$ ,  $p < 0.05$ ), hence providing support for Hypotheses 3 and 4. At the end of the day, it was discovered that the utilization of data mining has a significant and beneficial impact on both strategic management and organizational behavior ( $\beta = 0.256$ ,  $p < 0.05$ ) and ( $\beta = 0.224$ ,  $p < 0.05$ ), hence providing support for Hypotheses 5 and 6. Furthermore, the evidence that is currently available provides support for the hypothesis H7, which states that the development of organizational strategy management has a good impact on the enhancement of organizational behavior with firms. Furthermore, this effect is statistically significant ( $\beta = 0.220$ ,  $p < 0.05$ ).

**Table 3**  
Research Hypotheses Test

Research Hypotheses Test				Beta	P-Value	Results
H1	Social Media	→	Strategic Management	0.231	0.002	Supported
H2	Social Media	→	Organizational Behavior	0.229	0.001	Supported
H3	Big Data	→	Strategic Management	0.238	0.001	Supported
H4	Big Data	→	Organizational Behavior	0.247	0.000	Supported
H5	Data Mining	→	Strategic Management	0.256	0.002	Supported
H6	Data Mining	→	Organizational Behavior	0.224	0.001	Supported
H7	Strategic Management	→	Organizational Behavior	0.220	0.001	Supported

## 5. Future Research and limitations

Future investigations into the interaction between the influential forces of social media, big data, and data mining, as well as their impact on improving strategic management and organizational behavior within the Jordanian telecommunications industry, have the potential to yield substantial breakthroughs. Additionally, these investigations have the potential to bring about significant advancements. Because of the ever-changing nature of the technological landscape and the dynamic character of the telecommunications business, it is absolutely necessary to have a full understanding of the intricacies that are related with these key elements.

The identification of specific methods within the Jordanian telecommunications sector that make use of social media, big data, and data mining in order to improve strategic management is a topic that should be investigated. Scholars have the chance to investigate how the application of these technologies might improve communication tactics, optimize decision-making processes, and stimulate innovation inside enterprises that are involved in the field of telecommunications. It is of considerable relevance for both academic scholars and practitioners working in the telecommunications industry to have a comprehensive understanding of the complex interaction that exists between these technology breakthroughs and strategic management techniques.

In addition, the investigation of the influence that social media, big data, and data mining have on the organizational behavior of the Jordanian telecommunications industry can yield extremely useful insights. Scholars may investigate the ways in which these technologies affect the ways in which employees collaborate with one another, the patterns of communication, and the overall culture of the firm. This includes the investigation of the function that social media platforms play in easing the process of internal communication, the usage of big data for the purpose of analyzing employee performance, and the implementation of data mining techniques to improve talent management.

Nevertheless, it is of the utmost importance to acknowledge the limitations that are inherent to this field of research. One of



the most significant limitations is the rapid rate of technological advancement and the constant evolution of technology, particularly in the field of telecommunications. As these technologies continue to grow, researchers are faced with the issue of modifying their studies in order to keep up with the progression of these technologies. The establishment of findings that continue to be relevant over time is made significantly more difficult because of this. In addition, the influence of social media, big data, and data mining on strategic management and organizational behavior may differ from one scenario to another within the Jordanian telecommunications industry. This is because the context in which these factors are applied can change. The outcomes may be affected by a variety of factors, including the regulatory environment, the dynamics of the market, and the size of the company. The procedure of evaluating and quantifying the influence of these technologies can be a complex one, since it involves subjective components that have the potential to introduce variability in the findings of the study. For the purpose of advancing our understanding of how social media, big data, and data mining might improve strategic management and organizational behavior in the Jordanian telecommunications industry, it is vital that we identify and overcome these limits.

## 6. Research Conclusion and Implication

The major purpose of this study is to evaluate the influence of social media, big data, and data mining on the improvement of strategic management and organizational behavior within the Jordanian telecommunications sector. Specifically, the study will focus on the Jordanian military. The objective of this research is to provide a thorough understanding of the ways in which these technological features contribute to enhanced decision-making, communication techniques, and overall organizational success.

It is hypothesized in Hypotheses 1, 3, and 5 that social media, big data, and data mining have a substantial impact on the improvement of strategic management within the Jordanian telecommunications industry. On the other hand, hypotheses 2, 4, and 6 propose that these technological components play a significant influence in the enhancement of organizational behavior. The purpose of the analysis of the research data is to uncover strong connections, with the intention of highlighting the consequences for both strategic management and organizational behavior within the dynamic telecommunications business.

The results that are expected to be obtained highlight the significance of conducting additional research into the effects of social media, big data, and data mining on the overall performance of companies operating in the Jordanian telecommunications industry. These discoveries have the potential to make a contribution to the continuous efforts that the sector is making to adapt to and succeed in the fast-changing technological landscape. Furthermore, the study is in line with previous research inquiries, drawing parallels with previous research and studies in fields that are relevant to the one being investigated (Orben et al., 2022, Ortiz & Roser, 2023).

During the inquiry into the impact of social media, an examination of its influence on communication strategies, brand management, and customer engagement will be carried out within the Jordanian telecommunications industry. In addition to this, the research will investigate the role that big data plays in enhancing the efficiency of decision-making processes, enhancing operational efficiency, and encouraging innovation. The application of data mining in the extraction of relevant insights, predictive analytics, and the enhancement of organizational learning will be the primary emphasis of the investigation into data mining. Furthermore, the study is in line with previous research inquiries, drawing parallels with previous research and studies in fields that are relevant to the one being investigated (Deepa et al., 2022, Ikotun et al., 2023, Al-Dmour et al., 2023, Lutfi et al., 2023).

Additionally, the report acknowledges the complexity of the Jordanian telecommunications sector, which include the dynamics of regulatory agencies, the competitiveness in the market, and the improvements in technology. As a result, the purpose of this research is to offer nuanced insights into the ways in which the impact of social media, big data, and data mining may differ depending on the situation within the industry. The measurement and quantification of these variables will be done with great care, taking into consideration the impact of subjective factors that have the potential to bring variability into the findings of the study. Furthermore, the study is in line with previous research inquiries, drawing parallels with previous research and studies in domains that are relevant to the one being investigated (Khan & Shaheen, 2023, Shu & Ye, 2023, Xu et al., 2023, Gupta et al., 2023, Tsui et al., 2023, Khang et al., 2023)

The purpose of this study is to advance our understanding of how social media, big data, and data mining can contribute to improving strategic management and organizational behavior in the Jordanian telecommunications sector for the purpose of advancing our understanding of the potential constraints that may be present in this field of study, such as the rapidly evolving nature of technology.

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