A Decade of Innovation in Stock Market Analytics:

Machine Learning, Big Data, and Behavioural Insights

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Abstract:

This study explores a decade of advancements in stock market analytics, focusing on the integration of machine learning, big data, and behavioural insights. By reviewing 42 papers from leading journals, this research highlights the evolution of predictive models and the transformative role of unstructured data in market analysis. Key developments include the application of sentiment analysis to financial news and social media, which enhances the understanding of investor behaviour and market dynamics. Machine learning techniques, such as neural networks, have significantly improved the accuracy of financial forecasting, while behavioural insights provide a comprehensive view of market sentiment. The findings emphasize the importance of integrating diverse data sources and refining algorithms to adapt to the volatile and dynamic nature of financial markets. This paper also discusses the global impact of these innovations, including their potential to democratize access to advanced analytics and foster more efficient and stable markets. Future research directions are identified, focusing on the use of blockchain, IoT, and real-time data to develop sophisticated models for global financial analysis.

Introduction:

The stock market has experienced significant transformations over the past decade, driven by rapid advancements in technology, particularly big data analytics, machine learning, and behavioural insights. These innovations have redefined predictive capabilities and offered profound insights into market dynamics and investor behaviour. By integrating these technologies, financial systems are now better equipped to handle complexities, uncertainties, and the ever-evolving nature of global markets. This paper explores these advancements, synthesizing findings from various domains to provide a comprehensive understanding of the trends, methodologies, and applications shaping modern stock market analytics.

Big data mining has emerged as a critical tool in enhancing stock market prediction. Alshammari et al. (2022) highlighted its role in uncovering patterns from vast datasets, enabling more accurate forecasting and improving decision-making accuracy. By leveraging machine learning algorithms, researchers and practitioners can process unstructured and structured data, such as financial news, social media, and historical market trends, to generate actionable insights. These advancements mark a departure from traditional analytical approaches, emphasizing the importance of data-driven methodologies in the modern financial landscape.

Behavioural insights have also contributed significantly to the evolution of stock market analytics. Bihari et al. (2023) explored how cognitive biases influence investor decisions,

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employing machine learning and artificial neural networks to identify patterns often overlooked by conventional methods. These insights shed light on the psychological factors shaping market movements and highlight the potential of machine learning to bridge gaps in understanding investor behaviour. Such applications not only enhance predictive accuracy but also enable more personalized investment strategies, catering to diverse investor needs.

The integration of big data analytics into financial systems mirrors its application in other domains, showcasing its universal relevance in addressing complexity and uncertainty. Dennehy et al. (2021) examined its role in improving supply chain resilience, underscoring its ability to enhance decision-making frameworks across industries. Similarly, Han et al. (2021) demonstrated the transformative impact of artificial intelligence on business-to-business marketing, illustrating the cross-industry applicability of machine learning techniques. These parallels emphasize the versatility of big data analytics and its potential to drive innovation across sectors, including finance.

Studies by Jeble et al. (2018) and la Torre et al. (2018) highlight how big data and predictive analytics have reshaped traditional frameworks like supply chain sustainability and intellectual capital accounting. These advancements have paved the way for enhanced strategic decision-making, aligning with the dynamic requirements of contemporary markets. In the context of the stock market, such capabilities enable stakeholders to make informed decisions, mitigating risks and optimizing returns.

Liebowitz et al. (2019) expanded this discussion by exploring the interplay between data-driven insights and intuitive decision-making. The evolving role of technology in shaping trust and confidence among executives reflects the broader implications of these innovations. As machine learning and big data continue to revolutionize analytics, they are redefining the parameters of decision-making, fostering a more informed and confident approach to market participation.

These developments underscore the transformative potential of machine learning, big data, and behavioural insights in stock market analysis. By synthesizing findings from diverse domains, this paper aims to outline the key trends and methodologies that define modern financial analytics. It also seeks to highlight the applications of these technologies, emphasizing their role in democratizing access to advanced analytical tools and fostering a more inclusive financial ecosystem.

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Literature Review

The integration of advanced technologies, particularly artificial intelligence (AI) and big data analytics, has significantly transformed stock market analytics over the past decade. Central to this transformation is the ability of these technologies to enhance decision-making, improve predictive accuracy, and address market complexities. Alshammari et al. (2022) highlighted the effectiveness of big data mining in stock market predictions, demonstrating how data-driven approaches enable investors to navigate volatile environments with greater precision. Complementing this perspective, Bihari et al. (2023) explored the role of cognitive biases in investor decisions, revealing that machine learning and artificial neural networks can identify nuanced behavioural patterns that influence market behaviour.

Expanding on the role of big data, Dennehy et al. (2021) emphasized its transformative impact across industries, showcasing its application in supply chain resilience. This adaptability highlights the potential of big data analytics in stock market scenarios, where managing uncertainty and complexity is critical. Similarly, Jeble et al. (2018) and la Torre et al. (2018) demonstrated that big data capabilities enhance traditional financial frameworks, offering predictive insights that were previously inaccessible. These findings align with Liebowitz et al. (2019), who investigated the interplay between data-driven insights and intuitive decision-making, shedding light on the evolving trust dynamics in technology-driven analytics.

The ethical dimensions of AI and big data are also emerging as critical considerations. Karunanayaka et al. (2024) discussed the ethical implications of AI in digital marketing, noting parallels with its influence on financial markets. The integration of AI not only optimizes strategies but also raises questions about transparency, accountability, and digital influence. Similarly, Proença et al. (2024) examined how absorptive capacity enables organizations to transform data into actionable insights, stressing the importance of firm-specific capabilities in leveraging big data analytics.

Studies like Thakral et al. (2023) and Akpan (2024) revealed how AI and machine learning are reshaping domains like human resource analytics and accounting. These innovations underscore the interdisciplinary nature of technological advancements, which are increasingly applied to financial markets. Akyuz and Balkan (2024) highlighted the role of smart technologies in service systems, suggesting that the future of work is deeply intertwined with technological disruptions.

In the financial domain, Al-Okaily (2024) explored attitudes toward adopting accounting analytics technologies, emphasizing their role in digital transformation. Al-Okaily and Al-Okaily (2024) further analyzed factors influencing big data analytics-driven decision quality in

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financial modeling, identifying critical elements that shape strategic decisions. Jum'a et al. (2024) underscored the mediating role of innovation in leveraging big data for sustainable performance, showcasing its potential in enhancing organizational outcomes.

Recent advancements in methodologies and tools for stock market analysis have been significantly shaped by the integration of AI and big data analytics. Jum'a et al. (2024) examined the dual role of technological and personal capabilities in driving sustainable performance in Jordanian manufacturing companies, emphasizing the mediating effect of innovation. Their findings highlight the relevance of these capabilities for enhancing strategic decision-making, a principle that is equally critical for stock market analytics. Similarly, Kwon et al. (2024) explored the complex interplay of R&D, advertising, and exports in U.S. manufacturing firms, identifying differential effects of capabilities that provide insights into the diverse factors influencing market performance.

Inventory management's influence on performance, as analyzed by Panigrahi et al. (2024), provides a parallel to the data-driven stock market tools. Their systematic review underlines the importance of methodological precision in improving operational efficiency, which can be extended to predictive tools in financial markets. Rauch (2024) delved into the transformative role of fintech in capital markets, offering a detailed exploration of how financial technology innovations are reshaping analytical frameworks. These advancements support the automation and precision required in modern stock market analysis.

Sharma et al. (2024) introduced the concept of smart supply chains to bring agility and resilience for sustainable business performance. The agility derived from smart technologies resonates with the need for adaptive tools in stock market analysis, enabling timely responses to market fluctuations. Dang (2023) proposed a conceptual framework linking digital initiatives and dynamic capabilities to market performance, emphasizing the strategic use of digital tools for informed decision-making in evolving market conditions.

From the perspective of competency, Eng et al. (2023) analyzed the role of wireless information technology and transformational leadership in enhancing innovative capabilities within supply chain management. This study underscores the value of technological competencies in driving innovative decision-making, a key aspect of advanced stock market tools. Jaiswal et al. (2023) explored machine learning-based prognostication in lab or markets, offering valuable insights into how predictive tools can dissect complex market dynamics and inform strategy development. Kaur (2023) conducted a scientometric analysis of knowledge-based dynamic capabilities, highlighting the synergy between knowledge management and

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dynamic capabilities. This integration is instrumental in developing stock market tools that not only process vast data sets but also adapt to shifting market paradigms.

Recent advancements in technology, data analytics, and knowledge management have significantly transformed business practices and decision-making processes. Jaiswal et al. (2023) employed machine learning techniques to predict determinants in complex labour markets, emphasizing the critical role of AI in handling multidimensional datasets and deriving actionable insights. This research highlights how AI-driven tools can analyze compensation structures and labour dynamics, demonstrating their adaptability to various industries.

Kaur (2023) explored knowledge-based dynamic capabilities, emphasizing the integration of knowledge management and dynamic capabilities in improving organizational resilience and adaptability. Her scientometric analysis underscores the significance of harnessing both explicit and tacit knowledge to sustain competitive advantage, particularly in data-intensive environments. This aligns with the need for organizations to integrate strategic and analytical capabilities to thrive in today's dynamic markets.

In the context of personalization and service management, Mehmood et al. (2023) conducted an extensive review of personalization research in data-rich environments. Their findings suggest that leveraging personalized strategies driven by big data analytics can significantly enhance customer experience and service efficiency. This approach has implications for sectors ranging from marketing to financial services, where tailored interactions are critical for customer retention and loyalty. Rahman and Ziru (2023) examined the impact of clients' digitalization and audit firms' digital expertise on audit quality in China. Their research highlights how digital tools and expertise are essential in enhancing audit accuracy, efficiency, and transparency. This study is particularly relevant in the financial domain, where the interplay of technology and expertise ensures regulatory compliance and investor confidence.

Wang et al. (2023) investigated the relationship between corporate social responsibility (CSR) and innovation performance, moderated by social media strategic capability and big data analytics capability. Their findings illustrate that strategic use of social media and data analytics not only supports CSR initiatives but also drives innovation, providing a dual benefit of societal impact and business growth. Xavier and Picoto (2023) performed a bibliometric analysis of the regulation of data-driven marketing and its implications for management theory. Their systematic review underscores the evolving landscape of regulatory frameworks around data use, pointing to a balance between leveraging data for business insights and adhering to ethical and legal standards.

Eachempati and Srivastava (2022) highlighted the role of investor sentiment in financial decision-making, using sentiment analysis of news and disclosures. Their work exemplifies how integrating qualitative data with quantitative techniques can enhance understanding of market behavior and guide investment strategies. Bagherzadeh et al. (2021) proposed a generalizable sentiment analysis method for the hospitality sector, demonstrating the utility of big data in creating tailored solutions like a hotel-specific dictionary. Their approach exemplifies the potential of big data analytics in addressing sector-specific challenges, fostering innovation, and improving customer satisfaction.

Research Methodology

The methodology employed in this study focuses on a systematic review of academic literature to explore a decade of innovation in stock market analytics, specifically emphasizing machine learning, big data, and behavioural insights. The research design integrates a structured approach to selecting, analyzing, and synthesizing relevant scholarly works to uncover trends, advancements, and knowledge gaps in the domain.

The review process commenced with the identification of keywords such as stock market analytics, machine learning, big data, behavioural finance, predictive analytics, and market behaviour. These keywords were strategically chosen to ensure comprehensive coverage of the intersection between advanced analytical techniques and behavioural insights within the stock market context. The search spanned prestigious quality databases, including Emerald Insight, Scopus, and journals listed in the Australian Business Deans Council (ABDC) journal quality list.

Objectives

- To explore and synthesize advancements in stock market analytics, focusing on the integration of machine learning techniques, big data, and behavioural insights over the past decade.
- To identify key trends, methodologies, and applications in stock market studies, highlighting the role of emerging technologies and interdisciplinary approaches in shaping modern financial analysis.

From an initial pool of 60 papers identified through keyword searches, rigorous inclusion and exclusion criteria were applied to ensure the relevance and quality of the selected studies. Papers were shortlisted based on their publication in peer-reviewed journals, relevance to the research topic, and the methodological rigor demonstrated in their analyses. Duplicate papers and those lacking a direct connection to stock market analytics or the specified focus areas

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were excluded. This screening resulted in a final set of 42 papers for detailed review and analysis.

The selected studies span various perspectives, including the application of machine learning models for stock market prediction, the role of big data in capturing real-time market trends, and behavioural finance insights into investor decision-making. The focus was placed on studies published between 2013 and 2023 to reflect the decade-long trajectory of innovation in the field. These papers were analysed using thematic and content analysis methods to identify recurring themes, methodological approaches, and emerging trends.

Discussion

The findings from the reviewed literature reveal significant advancements and challenges in stock market analytics, particularly focusing on machine learning, big data, and behavioural insights. This section discusses these findings, contextualized through related studies, to provide a deeper understanding of the intersection between technology, behavioural finance, and market dynamics.

The integration of big data analytics into stock market analysis aligns with Bagherzadeh et al. (2021), who emphasized the transformative role of big data in sentiment analysis. Their generalizable method demonstrates how unstructured data, such as social media reviews, can be utilized to derive actionable insights. Similarly, stock market analytics benefits from leveraging large-scale datasets to capture market sentiments and trends, offering new predictive capabilities. This shift represents a crucial evolution in the field, where traditional market indicators are increasingly augmented by real-time data inputs.

Behavioral insights play a pivotal role in understanding market dynamics, as highlighted by Eachempati and Srivastava (2022). Their study on investor sentiment underscores the importance of accounting for emotions and perceptions in market forecasting. Machine learning models, by incorporating sentiment analysis, bridge the gap between behavioural finance theories and practical market analytics. This enables more nuanced decision-making processes, which are critical in volatile and complex stock market environments.

The regulatory implications of data-driven analytics, as discussed by Xavier and Picoto (2023), introduce another dimension to stock market innovation. The evolving role of artificial intelligence (AI) in strategy formulation necessitates robust regulatory frameworks to ensure ethical and unbiased applications. Stock market analytics must navigate these regulatory challenges while maximizing the benefits of AI and big data.

The shift toward digital servitization, as outlined by Ciasullo et al. (2021), highlights the convergence of technological innovation and service-based approaches. This parallels the

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adoption of advanced analytics tools in the stock market, fostering a service-oriented model that prioritizes investor engagement and satisfaction. The interplay between technology and human-centric approaches marks a significant trend, demanding a balance between automation and personalized decision-making.

The advancements in stock market analytics are underpinned by the transformative potential of big data, machine learning, and behavioural insights, as elucidated by recent research. This discussion integrates the theoretical and practical implications of these developments using the referenced literature, focusing on their role in shaping decision-making processes and enhancing market understanding.

Ratchford (2020) highlights the evolution of academic research, emphasizing the necessity for a multidisciplinary approach to address complex market phenomena. The integration of marketing, behavioural science, and machine learning fosters a robust analytical framework, aligning with the needs of dynamic stock markets. Such an approach ensures adaptability to changing market conditions and investor behaviour's.

Zaki and McColl-Kennedy's (2020) Text Mining Analysis Roadmap (TMAR) provides a structured methodology for deriving insights from unstructured data, such as social media and financial disclosures. The adoption of such frameworks enables stock market analysts to uncover latent patterns and trends, enhancing predictive accuracy. Similarly, the work by Hofmann and Rutschmann (2018) on big data analytics in supply chains can be adapted to stock market forecasting, underscoring the versatility of data-driven methodologies across domains.

The application of neural networks in financial decision-making, as explored by Anagnostopoulos and Rizeq (2019), further solidifies the role of advanced machine learning techniques. Neural networks' ability to model non-linear relationships mirrors the complexity of stock market dynamics, providing a significant advantage in predictive modeling. This aligns with Rialti et al. (2018), who stress the need for ambidextrous organizations to balance exploitation and exploration in the era of big data, a strategy equally relevant for financial institutions navigating rapidly evolving markets.

Mariani et al. (2018) emphasize the importance of business intelligence and big data in creating actionable insights, which resonates with He et al.'s (2017) findings on managing extracted knowledge from social media for decision-making. Both studies underscore the critical role of real-time data in refining stock market strategies and fostering agile decision-making.
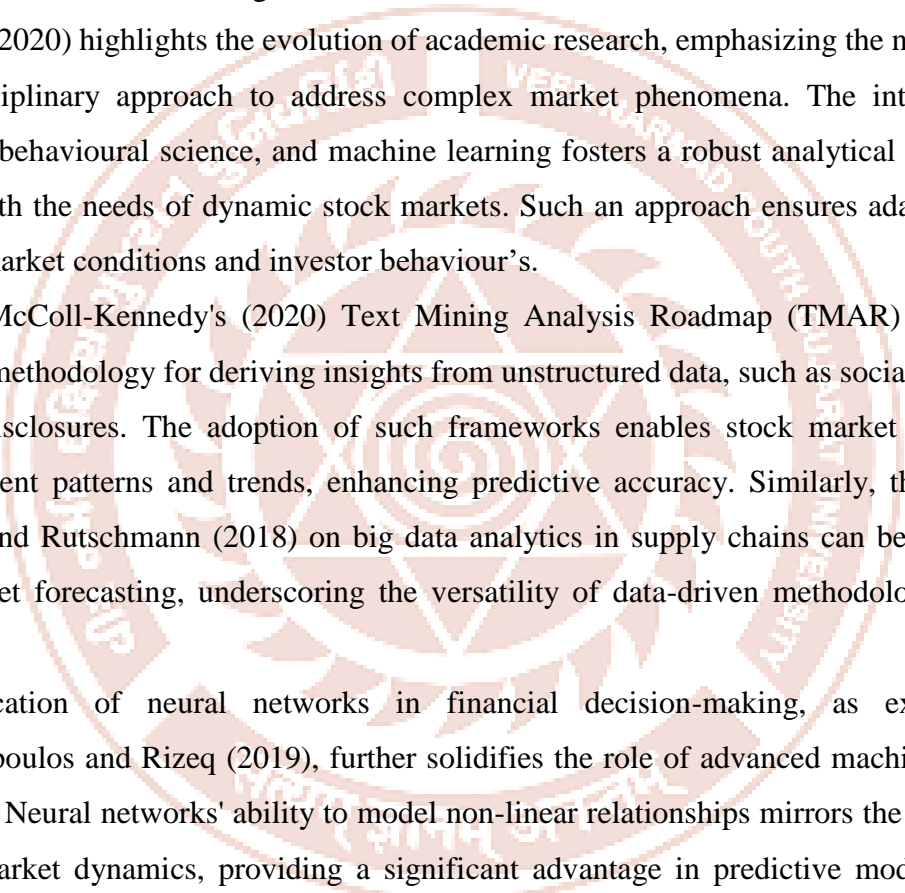
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<p align="center">**Table 1: Summary of Some of Literatures**</p>

No.	Paper Citation (Author, Year)	Objectives	Findings
1	Ratchford, B. T., 2020	To analyze the history of academic research in marketing and its implications for the future.	Emphasizes the evolution of research in marketing, focusing on integrating new technologies and interdisciplinary approaches.
2	Zaki, M., McColl-Kennedy, J. R., 2020	To develop a roadmap for text mining analysis in service research.	Introduces a structured methodology (TMAR) for analyzing unstructured data, enabling improved insights for service marketing.
3	Anagnostopoulos, I., Rizeq, A., 2019	To investigate the value confinement of neural networks in financial analysis.	Finds that neural networks can efficiently model non-linear relationships in financial markets, improving decision-making.
4	Hofmann, E., Rutschmann, E., 2018	To explore the application of big data analytics in demand forecasting within supply chains.	Highlights the versatility of big data in predictive analytics, which can be applied to stock market forecasting.
5	Mariani, M., Baggio, R., Fuchs, M., Höepken, W., 2018	To review the role of business intelligence and big data in the hospitality and tourism industry.	Reveals that business intelligence tools and big data play a crucial role in improving decision-making and operations in industries.
6	Rialti, R., Marzi, G., Silic, M., Ciappei, C., 2018	To explore the concept of ambidextrous organizations in the context of big data and agility.	Concludes that ambidextrous organizations can effectively balance exploration and exploitation using big data.

7	He, W., Wang, F.-K., Akula, V., 2017	To examine how businesses can manage extracted knowledge from big social media data for decision making.	Identifies social media as a rich data source for extracting valuable market insights, aiding in business decision-making.
8	Bagherzadeh, S., Shokouhyar, S., Jahani, H., Sigala, M., 2021	To create a sentiment analysis method for building a hotel dictionary using big data from reviews.	Shows that sentiment analysis can improve customer understanding, leading to better service management and marketing in the hospitality industry.
[Sources: Authors Work]			

Conclusion

The integration of machine learning, big data analytics, and behavioural insights into stock market analysis has led to significant advancements in the understanding and prediction of market dynamics. Over the past decade, numerous studies have highlighted how these technologies are reshaping the landscape of financial markets, enabling more accurate forecasting, sentiment analysis, and decision-making processes. Research has increasingly emphasized the role of big data and machine learning in enhancing market predictions, particularly in volatile environments where traditional models fall short. For instance, studies have shown how sentiment analysis, particularly in financial news and social media, can provide real-time market signals, helping to forecast market movements and investor behaviour (Eachempati & Srivastava, 2022; He et al., 2017).

A key takeaway from the reviewed literature is the rising importance of integrating unstructured data into market predictions. Text mining and sentiment analysis, for example, have proven invaluable in transforming qualitative data from news, social media, and financial disclosures into actionable insights for investors and market analysts (Zaki & McColl-Kennedy, 2020; Bagherzadeh et al., 2021). This data-driven approach not only enhances the predictive accuracy of market models but also provides a more nuanced understanding of investor sentiment, which is often a crucial factor in market fluctuations.

The evolution of machine learning techniques, such as neural networks and deep learning, has been pivotal in refining financial forecasting models. These methods have allowed for the extraction of complex patterns from large datasets, leading to more precise and timely

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predictions (Anagnostopoulos & Rizeq, 2019). The ability to adapt to new data and self-improve over time makes these methods particularly valuable in the context of dynamic and unpredictable stock markets.

The studies reviewed also underscore the growing significance of behavioural insights in stock market analytics. Understanding investor sentiment and its impact on market dynamics has become an essential aspect of market analysis. This behavioural perspective is increasingly incorporated into big data models, allowing for a more comprehensive view of market behaviour and investor decision-making (Rialti et al., 2018). By accounting for psychological and social factors influencing investment decisions, these models provide deeper insights into market trends, offering a more holistic approach to financial analysis.

Looking ahead, the future scope of this field lies in the continued refinement of predictive models through advancements in artificial intelligence and the integration of diverse data sources, including non-traditional ones like blockchain and IoT. The future of stock market analytics will likely involve more sophisticated algorithms capable of processing real-time data from a variety of channels, further enhancing the accuracy of predictions. Moreover, as the financial market becomes increasingly global, there will be a need for models that can integrate and analyze data from multiple regions and economic contexts to provide a more comprehensive understanding of global market 2dynamics.

The global impact of these advancements is profound. By democratizing access to advanced market analysis tools, these technologies have the potential to level the playing field for individual investors and smaller institutions, allowing them to compete with larger, more resource-rich entities. Additionally, the integration of big data and behavioural insights into stock market analysis holds the promise of more stable and efficient financial markets, reducing volatility and improving investor confidence. As machine learning and big data analytics continue to evolve, their application in financial markets will likely become even more influential, transforming the way investors, analysts, and institutions approach market prediction and decision-making on a global scale.

References

- Alshammari, B. M., Aldhmour, F., AlQenaei, Z. M., & Almohri, H. (2022). Stock market prediction by applying big data mining. *Arab Gulf Journal of Scientific Research*, *40*(2), 139–152. https://doi.org/10.1108/AGJSR-05-2022-0053

- Bihari, A., Dash, M., Muduli, K., Kumar, A., Mulat-Weldemeskel, E., & Luthra, S. (2023). Does cognitive biased knowledge influence investor decisions? An empirical investigation using machine learning and artificial neural network. *VINE Journal of*

VNSGU Journal of Research and Innovation (Peer Reviewed)
ISSN:2583-584X
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Information and Knowledge Management Systems, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/VJIKMS-08-2022-0253

- Dennehy, D., Oredo, J., Spanaki, K., Despoudi, S., & Fitzgibbon, M. (2021). Supply chain resilience in mindful humanitarian aid organizations: the role of big data analytics. *International Journal of Operations & Production Management*, *41*(9), 1417–1441. https://doi.org/10.1108/IJOPM-12-2020-0871

- Han, R., Lam, H. K. S., Zhan, Y., Wang, Y., Dwivedi, Y. K., & Tan, K. H. (2021). Artificial intelligence in business-to-business marketing: a bibliometric analysis of current research status, development and future directions. *Industrial Management & Data Systems*, *121*(12), 2467–2497. https://doi.org/10.1108/IMDS-05-2021-0300

- Jeble, S., Dubey, R., Childe, S. J., Papadopoulos, T., Roubaud, D., & Prakash, A. (2018). Impact of big data and predictive analytics capability on supply chain sustainability. *The International Journal of Logistics Management*, *29*(2), 513–538. https://doi.org/10.1108/IJLM-05-2017-0134

- la Torre, M., Botes, V. L., Dumay, J., Rea, M. A., & Odendaal, E. (2018). The fall and rise of intellectual capital accounting: new prospects from the Big Data revolution. *Meditari Accountancy Research*, *26*(3), 381–399. https://doi.org/10.1108/MEDAR-05-2018-0344

- Liebowitz, J., Chan, Y., Jenkin, T., Spicker, D., Paliszkiewicz, J., & Babiloni, F. (2019). If numbers could "feel": How well do executives trust their intuition? *VINE Journal of Information and Knowledge Management Systems*, *49*(4), 531–545. https://doi.org/10.1108/VJIKMS-12-2018-0129

- Oshadi Karunanayaka, K. A. Y. R., Jahankhani, H., El-Deeb, S., Will Arachchige, I. S., & Amin Metwally Hussien, O. A. (2024). Artificial Intelligence in Digital Marketing: The Ethical Implications of Digital Influence on Markets and Consumer. In S. S. Dadwal, H. Jahankhani, & K. Revett (Eds.), *Market Grooming* (pp. 173–197). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83549-001-320241009

- Proença, M., Costa, B. C., Didonet, S. R., Machado Toaldo, A. M., Martins, T. S., & Frega, J. R. (2024). How the absorptive capacity could transform data into better decisions: a multilevel perspective to deal with the difference between firm sizes. *Management Research Review*, *47*(5), 744–766. https://doi.org/10.1108/MRR-05-2023-0350

VNSGU Journal of Research and Innovation (Peer Reviewed)
ISSN:2583-584X
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- Thakral, P., Srivastava, P. R., Dash, S. S., Jasimuddin, S. M., & Zhang, Z. (Justin). (2023). Trends in the thematic landscape of HR analytics research: a structural topic modeling approach. *Management Decision*, *61*(12), 3665–3690. https://doi.org/10.1108/MD-01-2023-0080

- Akpan, Dr. M. (2024). Artificial Intelligence and Machine Learning. In *Future-Proof Accounting* (pp. 49–64). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83797-819-920241007

- Akyuz, G. A., & Balkan, D. (2024). A Literature Review on Smart Technologies in Service Systems: HOW Should We Work in Future? In R. P. Singh Kaurav & V. Mishra (Eds.), *Review of Technologies and Disruptive Business Strategies* (Vol. 3, pp. 255–273). Emerald Publishing Limited. https://doi.org/10.1108/S2754-586520240000003013

- Al-Okaily, M. (2024). Attitudes toward the adoption of accounting analytics technology in the digital transformation landscape. *Journal of Accounting & Organizational Change*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JAOC-04-2024-0127

- Al-Okaily, M., & Al-Okaily, A. (2024). Financial data modeling: an analysis of factors influencing big data analytics-driven financial decision quality. *Journal of Modelling in Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JM2-08-2023-0183

- Jum'a, L., Zimon, D., & Madzik, P. (2024). Impact of big data technological and personal capabilities on sustainable performance on Jordanian manufacturing companies: the mediating role of innovation. *Journal of Enterprise Information Management*, *37*(2), 329–354. https://doi.org/10.1108/JEIM-09-2022-0323

- Kwon, H.-B., Lee, J., & Brennan, I. (2024). Complex interplay of R&D, advertising and exports in USA manufacturing firms: differential effects of capabilities. *Benchmarking: An International Journal*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/BIJ-03-2023-0183

- Panigrahi, R. R., Shrivastava, A. K., & Nudurupati, S. S. (2024). Impact of inventory management on SME performance: a systematic review. *International Journal of Productivity and Performance Management*, *73*(9), 2901–2925. https://doi.org/10.1108/IJPPM-08-2023-0428

VNSGU Journal of Research and Innovation (Peer Reviewed)
ISSN:2583-584X
Volume No.4 Issue No.:1 January to March 2025

14

- Rauch, C. (2024). Fintech in Capital Markets. In H. K. Baker, G. Filbeck, & K. Black (Eds.), *The Emerald Handbook of Fintech* (pp. 381–396). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83753-608-520241045

- Sharma, M., Antony, R., Sharma, A., & Daim, T. (2024). Can smart supply chain bring agility and resilience for enhanced sustainable business performance? *The International Journal of Logistics Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/IJLM-09-2023-0381

- Dang, L. P. H. (2023). Exploring the Relationship between Digital Initiatives, Dynamic Capabilities and Market Performance: A Conceptual Framework. In R. Sharma, A. Shishodia, & A. Gupta (Eds.), *Fostering Sustainable Development in the Age of Technologies* (pp. 113–128). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83753-060-120231010

- Eng, T.-Y., Mohsen, K., & Wu, L.-C. (2023). Wireless information technology competency and transformational leadership in supply chain management: implications for innovative capability. *Information Technology & People*, *36*(3), 969–995. https://doi.org/10.1108/ITP-06-2021-0489

- Jaiswal, R., Gupta, S., & Tiwari, A. K. (2023). Dissecting the compensation conundrum: a machine learning-based prognostication of key determinants in a complex labor market. *Management Decision*, *61*(8), 2322–2353. https://doi.org/10.1108/MD-07-2022-0976

- Kaur, V. (2023). Knowledge-based dynamic capabilities: a scientometric analysis of marriage between knowledge management and dynamic capabilities. *Journal of Knowledge Management*, *27*(4), 919–952. https://doi.org/10.1108/JKM-02-2022-0112

- Mehmood, K., Verleye, K., de Keyser, A., & Larivière, B. (2023). Piloting personalization research through data-rich environments: a literature review and future research agenda. *Journal of Service Management*, *34*(3), 520–552. https://doi.org/10.1108/JOSM-10-2021-0405

- Rahman, M. J., & Ziru, A. (2023). Clients' digitalization, audit firms' digital expertise, and audit quality: evidence from China. *International Journal of Accounting & Information Management*, *31*(2), 221–246. https://doi.org/10.1108/IJAIM-08-2022-0170

- Wang, C., Tang, F., Zhang, Q., & Zhang, W. (2023). How does corporate social responsibility contribute to innovation performance? The moderating role of social

VNSGU Journal of Research and Innovation (Peer Reviewed)
ISSN:2583-584X
Volume No.4 Issue No.:1 January to March 2025

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media strategic capability and big data analytics capability. *European Journal of Innovation Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/EJIM-11-2022-0636

- Xavier, J., & Picoto, W. N. (2023). Regulation of data-driven marketing and management theory: bibliometric analysis, systematic literature review and research agenda. *International Journal of Law and Management*, *65*(5), 461–482. https://doi.org/10.1108/IJLMA-02-2023-0022

- Eachempati, P., & Srivastava, P. R. (2022). Accounting for investor sentiment in news and disclosures. *Qualitative Research in Financial Markets*, *14*(1), 53–75. https://doi.org/10.1108/QRFM-01-2020-0006

- Bagherzadeh, S., Shokouhyar, S., Jahani, H., & Sigala, M. (2021). A generalizable sentiment analysis method for creating a hotel dictionary: using big data on TripAdvisor hotel reviews. *Journal of Hospitality and Tourism Technology*, *12*(2), 210–238. https://doi.org/10.1108/JHTT-02-2020-0034

- Ciasullo, M. V., Polese, F., Montera, R., & Carrubbo, L. (2021). A digital servitization framework for viable manufacturing companies. *Journal of Business & Industrial Marketing*, *36*(13), 142–160. https://doi.org/10.1108/JBIM-07-2020-0349

- Falletta, S. v, & Combs, W. L. (2021). The HR analytics cycle: a seven-step process for building evidence-based and ethical HR analytics capabilities. *Journal of Work-Applied Management*, *13*(1), 51–68. https://doi.org/10.1108/JWAM-03-2020-0020

- Kuhn, K. M., Meijerink, J., & Keegan, A. (2021). Human Resource Management and the Gig Economy: Challenges and Opportunities at the Intersection between Organizational HR Decision-Makers and Digital Labor Platforms. In M. R. Buckley, A. R. Wheeler, J. E. Baur, & J. R. B. Halbesleben (Eds.), *Research in Personnel and Human Resources Management* (Vol. 39, pp. 1–46). Emerald Publishing Limited. https://doi.org/10.1108/S0742-730120210000039001

- Eriksson, T., Bigi, A., & Bonera, M. (2020). Think with me, or think for me? On the future role of artificial intelligence in marketing strategy formulation. *The TQM Journal*, *32*(4), 795–814. https://doi.org/10.1108/TQM-12-2019-0303

- Maavak, M. (2020). Bubble to panopticon: dark undercurrents of the big data torrent. *Kybernetes*, *49*(3), 1046–1060. https://doi.org/10.1108/K-06-2019-0403

VNSGU Journal of Research and Innovation (Peer Reviewed)
ISSN:2583-584X
Volume No.4 Issue No.:1 January to March 2025

16

- Ratchford, B. T. (2020). The history of academic research in marketing and its implications for the future. *Spanish Journal of Marketing - ESIC*, *24*(1), 3–36. https://doi.org/10.1108/SJME-11-2019-0096

- Zaki, M., & McColl-Kennedy, J. R. (2020). Text mining analysis roadmap (TMAR) for service research. *Journal of Services Marketing*, *34*(1), 30–47. https://doi.org/10.1108/JSM-02-2019-0074

- Anagnostopoulos, I., & Rizeq, A. (2019). Confining value from neural networks. *Managerial Finance*, *45*(10/11), 1433–1457. https://doi.org/10.1108/MF-12-2017-0523

- Muneeb, D., Khong, K. W., Ennew, C., & Avvari, M. (2019). Building an integrated conceptual model of competitive learning capability. *Asia-Pacific Journal of Business Administration*, *11*(3), 267–287. https://doi.org/10.1108/APJBA-02-2019-0042

- Hofmann, E., & Rutschmann, E. (2018). Big data analytics and demand forecasting in supply chains: a conceptual analysis. *The International Journal of Logistics Management*, *29*(2), 739–766. https://doi.org/10.1108/IJLM-04-2017-0088

- Mariani, M., Baggio, R., Fuchs, M., & Höepken, W. (2018). Business intelligence and big data in hospitality and tourism: a systematic literature review. *International Journal of Contemporary Hospitality Management*, *30*(12), 3514–3554. https://doi.org/10.1108/IJCHM-07-2017-0461

- Rialti, R., Marzi, G., Silic, M., & Ciappei, C. (2018). Ambidextrous organization and agility in big data era. *Business Process Management Journal*, *24*(5), 1091–1109. https://doi.org/10.1108/BPMJ-07-2017-0210

- He, W., Wang, F.-K., & Akula, V. (2017). Managing extracted knowledge from big social media data for business decision making. *Journal of Knowledge Management*, *21*(2), 275–294. https://doi.org/10.1108/JKM-07-2015-0296

VNSGU Journal of Research and Innovation (Peer Reviewed)
ISSN:2583-584X
Volume No.4 Issue No.:1 January to March 2025

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