Business Theories Dedicated to SMEs in the EU: An Integrated Theoretical Perspective

Omar Garcia

IBS International Business School Budapest
ogarciagarcia@ibs-b.hu

Prof. Dr. Kornélia Lazányi

Wekerle International University
lazanyi.kornelia@wsne.hu

Abstract: Small and medium-sized enterprises (SMEs) constitute a fundamental pillar of the European economy, yet their performance remains highly volatile due to structural constraints and increasing environmental uncertainty. Despite extensive research in strategic management, many foundational business theories have been developed in the context of large organisations and relatively stable environments, raising questions regarding their applicability to SMEs, particularly within the European Union. This paper critically examines four prominent theoretical perspectives: the Resource-Based View (RBV), Dynamic Capabilities Theory (DCT), the Technology Acceptance Model (TAM), and Big Data Analytics Capability (BDAC), evaluating their relevance, explanatory power, and limitations in SME contexts. Drawing on recent empirical evidence from European and German SMEs, the analysis demonstrates that each framework provides valuable but partial insights into organisational performance. The findings suggest that no single theoretical lens sufficiently captures the complexity of SME environments characterised by resource constraints, managerial centralisation, and increasing digitalisation pressures. Instead, SME performance emerges from the interaction between resources, adaptive processes, managerial perceptions, and data-driven capabilities. This paper contributes to the literature by highlighting the necessity of an integrated theoretical approach and provides a structured foundation for future empirical research on SMEs operating under conditions of uncertainty and technological transformation.

Keywords: Resource-Based View; Dynamic Capabilities Theory; Technology Acceptance Model; Big Data Analytics Capability; SME Performance; European Union; Theoretical Integration.

1 Introduction

Small and medium-sized enterprises (SMEs) constitute the structural backbone of the European economy, contributing significantly to employment, innovation, and economic growth [1]. Within the European Union, SMEs are formally defined as organisations with fewer than 250 employees and annual turnover below €50 million [2]. In Germany alone, SMEs (commonly referred to as the Mittelstand) represent 99.2% of all businesses and account for 53.6% of total employment, underscoring their systemic importance [3].

Despite this central role, the performance of SMEs remains highly volatile, largely due to the persistent and demanding challenges embedded in the business environment, posing a significant risk to economic stability [4]. Limited resource bases frequently expose SMEs to liquidity constraints, particularly during periods of economic downturn or crisis [5]. In addition, increasing pressures associated with digital transformation, alongside ongoing difficulties in attracting and retaining skilled labour, further hinder their long-term sustainability [6]. Collectively, these structural challenges contribute to heightened vulnerability and comparatively short organisational lifespans. Evidence from Germany illustrates this fragility, with mortality rates reaching 26% within the first year and 62% after five years [7].

Beyond these ongoing operational pressures, SMEs are also especially sensitive to unexpected disruptions. Such events can significantly interrupt supply chains and production activities [8]. Concurrently, economic shifts, technological change, and broader social trends, require SMEs to adapt quickly in order to maintain competitiveness and avoid market exit [9]. Similarly, although typically perceived as advantageous, sudden increases in demand can exceed the limited capacities of smaller organisations, resulting in operational inefficiencies, delays, and potential reputational harm [10].

Consequently, understanding SME performance requires theoretical frameworks capable of capturing not only resource limitations but also adaptation processes, behavioural decision-making, and technological capability development. Traditional strategic management theories are largely developed in the context of large organisations and stable environments. Their direct applicability to SMEs, particularly in European contexts characterised by structural heterogeneity and regulatory complexity, remains an open question. This paper examines four major theoretical perspectives: the Resource-Based View (RBV), Dynamic Capabilities Theory (DCT), the Technology Acceptance Model (TAM), and Big Data Analytics Capability (BDAC), evaluating their relevance, limitations, and applicability to SMEs in the European Union.

2 The Resource-Based View in SME Contexts

The Resource-Based View (RBV) provides a foundational explanation for variations in performance by emphasising organisation-specific resources as the primary drivers of competitive advantage [11], [12]. According to this perspective, organisations achieve sustained advantage when they possess resources that are valuable, rare, difficult to imitate, and organisationally embedded [13]. This internal focus represents a departure from externally oriented models, positioning the organisation as a bundle of tangible and intangible heterogeneous assets.

Recent research on European SMEs reaffirms the relevance of RBV, particularly under conditions of resource constraint. Estensoro et al. [14], analysing 354 Spanish manufacturing SMEs, demonstrate that organisations follow heterogeneous capability development paths, with performance outcomes contingent on how internal resources are combined and the maturity of their implementation. Similarly, Chaudhuri et al. [15] show that the performance benefits of digital assets materialise only when supported by complementary organisational processes and managerial capabilities. Extending this perspective, Sipos et al. [16], based on a multi-country sample of 932 SMEs, find that configurations of product uniqueness, organisational practices, and market-oriented process sophistication are closely associated with innovation performance.

Evidence from Germany further reinforces the RBV argument by illustrating how resource configurations shape outcomes unevenly. Hassan et al. [17], using data from 1,100 German SMEs, report that higher levels of digital diffusion are linked to stronger innovation performance, although these effects depend critically on organisations 'learning capabilities. Complementary findings by Radicic and Petković [18] indicate that the innovation impact of digitalisation is both conditional and asymmetric, varying according to organisations characteristics, the types of digital technologies adopted, and the presence of internal R&D activities. Taken together, these studies align with RBV by demonstrating that performance differences stem from the specific configuration and effective deployment of organisational capabilities.

Despite its strengths, RBV exhibits limitations in SME applications. First, it assumes relatively stable environments. Second, it does not explicitly address how resources are adapted or reconfigured over time. Third, RBV. These limitations do not diminish the foundational contribution of RBV but instead clarify its scope. rarely isolates modern technological capabilities as distinct resource configurations. While RBV provides a strong foundation, it requires complementary perspectives to fully explain SME behaviour under dynamic conditions.

3 Dynamic Capabilities Theory and SME Adaptation

Dynamic Capabilities Theory (DCT) extends RBV by addressing how organisations adapt to changing environments through the reconfiguration of resources [19]. It introduces a process-oriented perspective, conceptualising three core microfoundations: sensing, which involves identifying opportunities and threats in the external environment; seizing, referring to the mobilisation of resources to capture these opportunities; and transforming, which concerns the reconfiguration of organisational assets and processes [20].

European SME-focused research has strengthened the empirical relevance of DCT, particularly under conditions of turbulence where adaptive speed and coordination are critical. Dejardin et al. [21], analysing 209 Portuguese SMEs during periods of disruption, find that dynamic capabilities are significantly associated with performance variation in crisis contexts, supporting their role as concrete explanatory mechanisms rather than abstract constructs. Similarly, Weaven et al. [22], drawing on qualitative evidence from 40 Australian SMEs, demonstrate how firms reconfigure resources and organisational routines to endure and recover during economic downturns, highlighting the importance of adaptive coordination for resilience. Extending this line of inquiry, Fernandes et al. [23], based on 120 internationalised Portuguese SMEs, show that dynamic capabilities strengthen the relationship between international entrepreneurial orientation and international performance, reinforcing the view that such capabilities function as amplifiers under uncertainty.

Evidence from German SMEs further explores the explanatory power of DCT by illustrating that adaptive transformation depends on organisational conditions enabling sensing, seizing, and reconfiguration. Held et al. [24], using survey data from 98 SMEs, show that dynamic capabilities positively influence the development of digital leadership and organisational culture, suggesting that adaptive capacity acts as a precursor to broader transformation readiness. In parallel, Petzolt et al. [25] propose a digital transformation maturity model tailored to German SMEs, arguing that structured capability-based assessments are necessary to guide and sequence transformation efforts. Collectively, these findings emphasise the need for structured capability assessment models to guide SME transformation processes.

Nevertheless, DCT remains insufficiently addressed in SME contexts. First, there is a limited specification of the mechanisms through which capabilities are operationalised. Second, existing studies do not commonly distinguish between superficial technology adoption and its deep integration into decision-making processes. Third, the effects of dynamic capabilities under specific forms of operational disruption remain under-theorised. Thus, while DCT enhances RBV by introducing adaptability, it still requires integration with perspectives that address behavioural and technological dimensions of organisational change.

4 Technology Acceptance Model in SMEs

While the RBV and DCT explain how internal resources and adaptive processes contribute to sustained performance, they do not explicitly address whether organisational actors are willing to adopt and effectively use technological systems. Capturing this behavioural dimension, the Technology Acceptance Model (TAM), developed by Davis [26], posits that perceived usefulness and perceived ease of use shape both behavioural intention and actual system usage. The adoption of objectively superior technologies is not an automatic outcome of resource availability; in contrast, it is mediated by managerial perceptions and cognitive evaluations [27]. Subsequent extensions, containing TAM2 [28], the Unified Theory of Acceptance and Use of Technology [27], and TAM3 [29], expand this framework by incorporating social influence, facilitating conditions, and additional cognitive determinants.

Recent empirical evidence from European SMEs confirms the continued relevance of organisational and contextual determinants in digital adoption. Clemente-Almendros et al. [30], based on a sample of 1,044 managers, show that digital transformation outcomes vary systematically with firm size, degree of internationalisation, and managerial educational background, highlighting substantial heterogeneity across SME categories. Similarly, Kwarteng et al. [31], analysing 188 owner-managers in the Czech Republic and Slovakia, extend UTAUT by incorporating competitive pressure and demonstrate that performance expectancy and facilitating conditions remain key drivers of adoption. Further refinement is provided by Venkatesh [32], who examines algorithmic decision-support systems, and identifies additional barriers such as trust calibration, perceived reliability, and risk sensitivity.

Within the German SME context, adoption research further underscores the importance of TAM-related mechanisms. Hassan et al. [33], analysing 2,404 SMEs, find that the adoption of digital technologies such as social media and cloud computing is shaped by managerial perceptions, including perceived usefulness, security concerns, and implementation costs. In a similar approach, Ulrich and Frank [34], based on survey data from 283 German firms, report relatively slow adoption of artificial intelligence, with organisations often relying on established systems and identifying insufficient employee qualifications as a major barrier. These findings reinforce a central TAM insight: the availability of technology does not guarantee its adoption.

However, despite its strengths, TAM presents an important limitation in the SME context: it primarily addresses initial acceptance rather than long-term value creation, offering bounded insight into how technologies contribute to sustained performance. Addressing this dimension requires integration with perspectives that conceptualise data-related factors required for effective technology utilisation, which is the focus of the subsequent section.

5 Big Data Analytics Capability and Performance

While TAM explains the behavioural drivers of technology adoption, it does not directly account for how such use evolves into a sustained organisational capability. The concept of Big Data Analytics Capability (BDAC) addresses this gap by conceptualising analytics as a multidimensional capability embedded within organisational resources, routines, and managerial processes; formalised as a capability comprising tangible resources (data infrastructure and tools), human resources (technical and managerial expertise), and intangible resources (culture and coordination mechanisms) [35]. Complementing this view, Akter et al. [36] demonstrate that analytics capability contributes to performance only when it is strategically aligned with organisational objectives. Building on this foundation, Mikalef et al. [37] show that analytics capabilities generate sustained performance benefits when embedded within organisational routines and supported by processes of continuous resource reconfiguration.

Research focused on European SMEs refines the conditions under which analytics capabilities are formed and leveraged. Pedota [38], drawing on a large-scale dataset of 21,934 Italian organisations, finds that the performance benefits of big data depend on the diversity of data sources, with heterogeneous inputs enhancing early detection of environmental change and improving resource allocation decisions. Similarly, Cadden et al. [39], analysing 194 UK SMEs, show that the relationship between analytics capability and performance is mediated by knowledge integration mechanisms that translate analytical insights into cross-functional organisational capabilities. Additionally, Orero-Blat et al. [40], based on 183 Spanish SMEs, demonstrate that analytics capability enhances performance when combined with innovation processes, highlighting the importance of complementary organisational activities.

Within the German SME context, BDAC becomes particularly salient when research moves beyond adoption and examines the translation of data use into measurable organisational value. Pfister and Lehmann [41], through case studies of eight SMEs, show that analytics initiatives contribute to tangible outcomes such as revenue growth, efficiency gains, productivity improvements, and enhanced stakeholder satisfaction, often generating positive returns on investment. Expanding on this perspective, Kling et al. [42] conceptualise the transition toward a data-driven organisation as a structured, multi-stage process. These findings demonstrate that SMEs benefit from analytics not simply through access to digital tools, but through the development of routines, structures, and decision processes that convert data into sustained capability.

Despite these advancements, BDAC research faces limitations for SME applicability. First, empirical work is based on cross-sectional data, limiting insights into capability evolution. Second, models are often derived from large organisations. Lastly, behavioural aspects remain under-specified, reinforcing the need for integration with TAM.

6 Integrated Theoretical Framework

Individually, the four theoretical perspectives examined in this work provide valuable but partial explanations of SME performance. RBV explains resource heterogeneity, DCT addresses adaptation, TAM captures behavioural acceptance, and BDAC conceptualises analytics capability. However, when applied in isolation, each perspective fails to fully capture the complexity of SME environments. To illustrate their complementarity, Figure 1 presents an integrated conceptual representation:

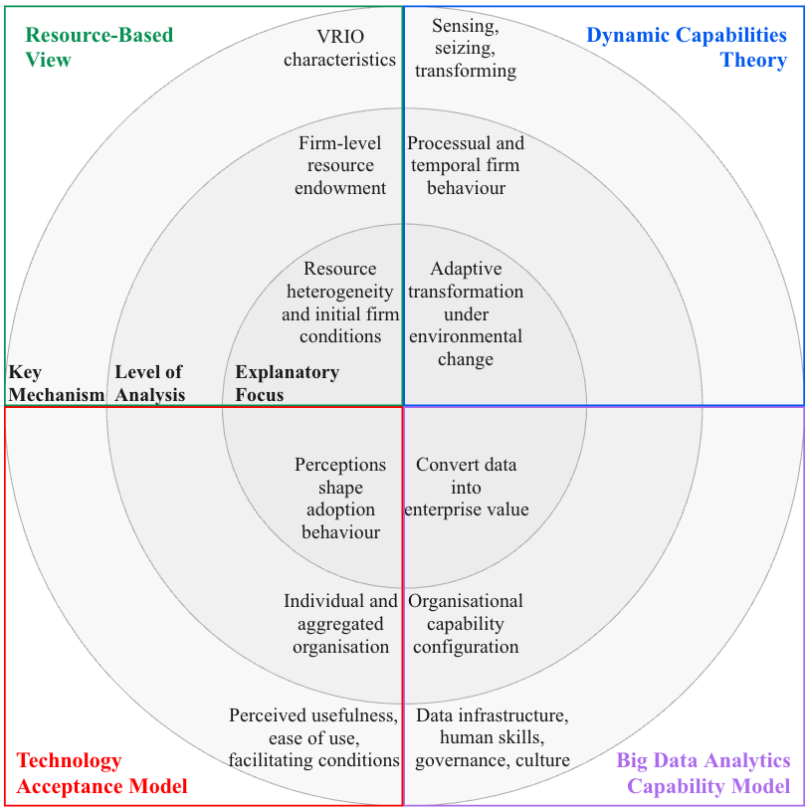

Figure 1

Analytical Integration of RBV, DCT, TAM and BDAC

Source: Own elaboration based on Barney [12], Teece et al. [19], Davis [26], Gupta and George [35].

Importantly, this model does not imply hierarchical dependency, but rather analytical complementarity, where each framework addresses a distinct limitation of the others.

Understanding how organisations achieve sustainable growth under conditions of operational disruption requires a theoretical framework capable of capturing multiple, interdependent dimensions of management science. In contemporary competitive environments, organisational performance is no longer determined solely by static resource endowments or industry positioning. Instead, it emerges from the dynamic interaction between internal capabilities, adaptive processes, decision-making mechanisms, and the effective utilisation of data-driven technologies [20]. Consequently, no single theoretical perspective is sufficient to fully explain how SMEs simultaneously navigate volatility, uncertainty, and growth pressures [43]. The key implication is that SME performance cannot be explained by a single theoretical lens. Instead, it emerges from the interaction of multiple dimensions. This integration also highlights critical gaps in existing literature, particularly regarding the interaction between behavioural adoption, capability development, and performance under dynamic conditions.

Conclusion

This paper has examined the applicability of four major business theories, and reveals that no single theoretical framework sufficiently explains SME performance and adaptation in the European context. While each theoretical perspective offers valuable insights, their individual limitations highlight the need for an integrated approach. RBV provides a strong foundation for understanding resource-based differences, but lacks dynamic considerations. DCT addresses adaptation but remains incomplete in operational terms. TAM explains adoption behaviour but does not capture capability development. BDAC bridges this gap by conceptualising analytics as a capability, yet requires integration with behavioural and dynamic perspectives.

Through this theoretical integration, this work offers a more comprehensive perspective that captures the interaction between resources, capabilities, behaviour, and technology. This approach is particularly relevant for SMEs operating in increasingly complex environments. For this reason, future research should focus on empirically testing these interactions, particularly in European SME settings characterised by digital transformation and operational uncertainty.

References

[1] OECD (2023) OECD SME and Entrepreneurship Outlook 2023. Paris: OECD Publishing. https://doi.org/10.1787/342b8564-en.

[2] European Commission (2003) 'Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises', Official Journal of the European Union, L 124, pp. 36-41.

[3] Institut für Mittelstandsforschung Bonn (2024) Mittelstand [Small and medium-sized enterprises in Germany] [online]. Available at: https://www.ifm-bonn.org/en/statistics/overview-mittelstand/key-indicators-based-on-sme-definition-by-ifm-bonn/germany (Accessed: 24 May 2025).

[4] Blackburn, R., Hart, M. and Wainwright, T. (2013) 'Small business performance: Business, strategy and owner-manager characteristics', Journal of Small Business and Enterprise Development, 20(1), pp. 8-27. https://doi.org/10.1108/14626001311298394.

[5] Burns, P. (2020) Entrepreneurship and small business: start-up, growth and maturity. London: Macmillan International Higher Education.

[6] Storey, D. J. and Greene, F. J. (2017) Small business and entrepreneurship. Harlow: Pearson Education.

[7] Institut für Mittelstandsforschung Bonn (2020) Überlebensrate von Unternehmen [Company survival rate] [online]. Available at: https://www.ifm-bonn.org/en/statistics/start-up-and-closure-of-businesses/ueberlebensrate-von-unternehmen (Accessed: 07 February 2025).

[8] Ivanov, D. and Dolgui, A. (2020) 'A digital supply chain twin for managing the disruption risks and resilience in the era of Industry 4.0', Production Planning & Control, 32(9), pp. 775-788. https://doi.org/10.1080/09537287.2020.1768450

[9] Doern, R., Williams, N. and Vorley, T. (2019) 'Special issue on entrepreneurship and crises: business as usual? An introduction and review of the literature', Entrepreneurship and Regional Development, 31(5-6), pp. 400-412. https://doi.org/10.1080/08985626.2018.1541590.

[10] Moedt, K., Lechner, C. and Khapova, S. (2024) 'Growing pains during scale-up hypergrowth: Integration and future research agenda', Technological Forecasting & Social Change, 209, 123779. https://doi.org/10.1016/j.techfore.2024.123779.

[11] Wernerfelt, B. (1984) 'A resource-based view of the firm', Strategic Management Journal, 5(2), pp. 171-180. https://doi.org/10.1002/smj.4250050207

[12] Barney, J. B. (1991) 'Firm resources and sustained competitive advantage', Journal of Management, 17(1), pp. 99-120. https://doi.org/10.1177/014920639101700108.

[13] Barney, J. B. (1995) 'Looking inside for competitive advantage', Academy of Management Executive, 9(4), pp. 49-61. https://doi.org/10.5465/AME.1995.9512032192.

[14] Estensoro, M., Larrea, M., Müller, J. M., and Sisti, E. (2022) 'A resource-based view on SMEs regarding the transition to more sophisticated stages of industry 4.0', European Management Journal, 40(5), pp. 778-792. https://doi.org/10.1016/j.emj.2021.10.001.

[15] Chaudhuri, A., Subramanian, N., and Dora, M. (2022) 'Circular economy and digital capabilities of SMEs for providing value to customers: Combined resource-based view and ambidexterity perspective', Journal of Business Research, 142, pp. 32-44. https://doi.org/10.1016/j.jbusres.2021.12.039.

[16] Sipos, N., Rideg, A., Al Najjar, A. and Lukovszki, L. (2025) 'Resource-based view of marketing innovation in SMEs: A multi-country empirical analysis based on the global competitiveness project', Journal of Innovation and Entrepreneurship, 14:94. https://doi.org/10.1186/s13731-025-00573-x.

[17] Hassan, S., Reuter, C. and Bzhalava, L. (2021) 'Perception or capabilities? An empirical investigation of the factors influencing the adoption of social media and public cloud in German SMEs', International Journal of Innovation Management, 25(1), pp. 1-26. https://doi.org/10.1142/S136391962150002X.

[18] Radicic, D. and Petković, S. (2023) 'Impact of digitalization on technological innovations in small and medium-sized enterprises (SMEs)', Technological Forecasting and Social Change, 191, 122474. https://doi.org/10.1016/j.techfore.2023.122474.

[19] Teece, D. J., Pisano, G. and Shuen, A. (1997) 'Dynamic capabilities and strategic management', Strategic Management Journal, 18(7), pp. 509-533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z.

[20] Teece, D. J. (2007) 'Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance', Strategic Management Journal, 28(13), pp. 1319-1350. https://doi.org/10.1002/smj.640.

[21] Dejardin, M., Raposo, M. L., Ferreira, J., Fernandes, C. I., Veiga, P. M., and Farinha, L. (2023) 'The impact of dynamic capabilities on SME performance during COVID-19', Review of Managerial Science, 17(5), pp. 1703-1729. https://doi.org/10.1007/s11846-022-00569-x.

[22] Weaven, S., Quach, S., Thaichon, P., Frazer, L., Bilot, K. and Grace, D. (2021) 'Surviving an economic downturn: Dynamic capabilities of SMEs',

Journal of Business Research, 128, pp. 109-123. https://doi.org/10.1016/j.jbusres.2021.02.009.

[23] Fernandes, C. I., Ferreira, J. J., Veiga, P. M., Hu, Q. and Hughes, M. (2025) 'Dynamic capabilities as a moderator: Enhancing the international performance of SMEs with international entrepreneurial orientation', Review of Managerial Science, 19, pp. 1073-1094. https://doi.org/10.1007/s11846-024-00784-8.

[24] Held, P., Heubeck, T. and Meckl, R. (2026) 'Boosting SMEs 'digital transformation: the role of dynamic capabilities in cultivating digital leadership and digital culture', Review of Managerial Science, 20, pp. 1687-1715. https://doi.org/10.1007/s11846-025-00919-5.

[25] Petzolt, S., Hölzle, K., Kullik, O, Gergeleit, W. and Radunski, A. (2022) 'Organisational digital transformation of SMEs: development and application of a digital transformation maturity model for business model transformation', International Journal of Innovation Management, 26(3), 2240017. https://doi.org/10.1142/S1363919622400175.

[26] Davis, F. D. (1989) 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', MIS Quarterly, 13(3), pp. 319-340. https://doi.org/10.2307/249008.

[27] Venkatesh, V., Morris, M. G., Davis, G. B. and Davis, F. D. (2003) 'User acceptance of information technology: Toward a unified view', MIS Quarterly, 27(3), pp. 425-478. https://doi.org/10.2307/30036540.

[28] Venkatesh, V. and Davis, F. D. (2000) 'A theoretical extension of the technology acceptance model: Four longitudinal field studies', Management Science, 46(2), pp. 186-204. https://doi.org/10.1287/mnsc.46.2.186.11926.

[29] Venkatesh, V. and Bala, H. (2008) 'Technology acceptance model 3 and a research agenda on interventions', Decision Sciences, 39(2), pp. 273-315. https://doi.org/10.1111/j.1540-5915.2008.00192.x.

[30] Clemente-Almendros, J. A., Nicoara-Popescu, D. and Pastor-Sanz, I. (2024) 'Digital transformation in SMEs: Understanding its determinants and size heterogeneity', Technology in Society, 77, 102483. https://doi.org/10.1016/j.techsoc.2024.102483.

[31] Kwarteng, M. A., Ntsiful, A., Plata Diego, L. F. and Novák, P. (2024) 'Extending UTAUT with competitive pressure for SMEs digitalization adoption in two European nations: a multi-group analysis', Aslib Journal of Information Management, 76(5), pp. 842-868. https://doi.org/10.1108/AJIM-11-2022-0482.

[32] Venkatesh, V. (2022) 'Adoption and use of AI tools: a research agenda grounded in UTAUT', Annals of Operations Research, 308, pp. 641-652. https://doi.org/10.1007/s10479-020-03918-9.

[33] Hassan, S., Meisner, K., Krause, K., Bzhalava, L. and Moog, P. (2024) 'Is digitalization a source of innovation? Exploring the role of digital diffusion in SME innovation performance', Small Business Economics, 62(4), pp. 1469-1491. https://doi.org/10.1007/s11187-023-00826-7.

[34] Ulrich, P. and Frank, V. (2021) 'Relevance and Adoption of AI technologies in German SMEs: Results from Survey-Based Research', Procedia Computer Science, 192, pp. 2152-2159. https://doi.org/10.1016/j.procs.2021.08.228.

[35] Gupta, M. and George, J. F. (2016) 'Toward the development of a big data analytics capability', Information & Management, 53(8), pp. 1049-1064. https://doi.org/10.1016/j.im.2016.07.004.

[36] Akter, S., Wamba, S. F., Gunasekaran, A., Dubey, R. and Childe, S. J. (2016) 'How to improve firm performance using big data analytics capability and business strategy alignment?', International Journal of Production Economics, 182, pp. 113-131. DOI: https://doi.org/10.1016/j.ijpe.2016.08.018.

[37] Mikalef, P., Boura, M., Lekakos, G. and Krogstie, J. (2019) 'Big data analytics and firm performance: Findings from a mixed-method approach', Journal of Business Research, 98, pp. 261-276. https://doi.org/10.1016/j.jbusres.2019.01.044.

[38] Pedota, M. (2023) 'Big data and dynamic capabilities in the digital revolution: The hidden role of source variety', Research Policy, 52(7), 104812. https://doi.org/10.1016/j.respol.2023.104812.

[39] Cadden, T., Weerawardena, J., Cao, G., Duan, Y. and McIvor, R. (2023) 'Examining the role of big data and marketing analytics in SMEs innovation and competitive advantage: A knowledge integration perspective', Journal of Business Research, 168, 114225, pp. 1-15. https://doi.org/10.1016/j.jbusres.2023.114225

[40] Orero-Blat, M., Palacios-Marqués, D., Leal-Rodríguez, A. and Ferraris, A. (2025) 'Beyond digital transformation: a multi-mixed methods study on big data analytics capabilities and innovation in enhancing organizational performance', Review of Managerial Science, 19(2), pp. 649-685. https://doi.org/10.1007/s11846-024-00768-8.

[41] Pfister, P. and Lehmann, C. (2023) 'Measuring the success of digital transformation in German SMEs', Journal of Small Business Strategy, 33(1), pp. 1-19. https://doi.org/10.53703/001c.39679.

[42] Kling, N., Haugk, S. and Gebauer, H. (2025) 'Towards a Data-Driven Organisation: Making Data a Strategic Knowledge Asset in SMEs', Journal of the Knowledge Economy, 16, pp. 18424-18442. https://doi.org/10.1007/s13132-025-02631-x.

[43] Eisenhardt, K. M. and Martin, J. A. (2000) ‘Dynamic capabilities: What are they?’, Strategic Management Journal, 21(10-11), pp. 1105-1121. https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E.