

The Innovative Enterprise: Venture Evolution And Strategic Resilience In A VUCA World

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Abstract

This paper examines the innovation-driven emergence and strategic evolution of Mastercard Incorporated ("Mastercard") as a dynamic venture navigating a volatile, uncertain, complex, and ambiguous (VUCA) global environment. Integrating insights from Open Innovation Management, Ambidexterity, Dynamic Capabilities, Platform, and Ecosystem Theories, the study proposes a comprehensive conceptual model the Mastercard VUCA Orchestrator Framework. The research synthesizes evidence from academic literature to illuminate how Mastercard's strategic innovation, collaborative partnerships, and technological adaptability foster resilience and sustained growth. The analysis reveals Mastercard's dual identity as both a mature multinational and an emerging digital venture, continually reconfiguring its business model to harness platform economies, ecosystem co-creation, and venture-scale innovation. Findings suggest that Mastercard's enduring competitiveness is rooted in orchestrating innovation across multi-rail digital ecosystems, leveraging ambidextrous leadership, and embedding sustainability and trust at the core of its operations.

Keywords: Innovation ecosystems, Emerging ventures, Strategic evolution, Dynamic capabilities, VUCA environment, Platform orchestration, Mastercard

1.0. INTRODUCTION

In today's volatile, uncertain, complex, and ambiguous (VUCA) business landscape, organisations are compelled to continuously innovate, adapt, and reinvent themselves to remain relevant (Bennett & Lemoine, 2014; Minciu et al., 2021). The pace of technological advancement, changing customer expectations, regulatory turbulence, and socio-economic disruptions have blurred the lines between established firms and start-ups, giving rise to emerging ventures—organisations that exhibit entrepreneurial agility while leveraging scale and structure for sustainable competitiveness (Katz & Gartner, 2016; Gutterman, 2024). Mastercard Incorporated (Mastercard) exemplifies this duality: a globally established financial technology corporation that has continually evolved through innovation, ecosystem orchestration, and strategic agility to thrive within a VUCA environment (Mastercard, 2024a; Mastercard, 2025d).

Since its founding in 1966, Mastercard has transformed from a traditional card network into a multi-rail digital payments and technology company, leveraging artificial intelligence, open banking, data analytics, and strategic partnerships to enable new forms of value creation (Mastercard, 2024a; Marr, 2024). This strategic evolution reflects the firm's deliberate application of dynamic capabilities—sensing, seizing, and transforming resources to maintain resilience and advantage in the face of disruption (Teece et al., 1997; Li et al., 2025). Mastercard's transformation also embodies characteristics of ambidexterity, simultaneously exploiting its core competencies and exploring new growth frontiers (March 1991; Campbell et al., 2025).

The emergence of Mastercard as an innovation-led venture is further reinforced by its engagement in open innovation ecosystems, collaborating with fintechs, technology providers, and start-ups through programs such as Start Path and the Mastercard Sustainability Innovation Lab (Chesbrough, 2003; Mastercard, 2025e). These partnerships enable co-creation, knowledge sharing, and accelerated go-to-market execution hallmarks of an entrepreneurial orientation in an emerging organisation (Pizzichini et al., 2025; Cassânego et al., 2025). By combining ecosystem-based collaboration with strategic foresight and governance, Mastercard exemplifies how established organisations can retain entrepreneurial dynamism while managing operational scale and systemic trust (Jacobides et al., 2018; Mastercard, 2024c). This paper therefore critically explores Mastercard's innovation-led emergence and strategic evolution within a VUCA environment, integrating insights from Open Innovation Management Theory, Ambidexterity Theory, Dynamic Capabilities Theory, Platform and Network Effects Theory, and Ecosystem Theory (Chesbrough, 2003; Rochet & Tirole, 2003; Iansiti & Levien, 2004; Kassotaki, 2022;

Li et al., 2025). Drawing from these perspectives, the study proposes an integrative conceptual model the Mastercard VUCA Orchestrator Framework which conceptualizes Mastercard's strategic renewal, ecosystem orchestration, and innovation-driven sustainability in a turbulent environment.

The paper is structured as follows: Section 2 defines key terms and frames Mastercard within the context of emerging organisations. Section 3 discusses the theoretical foundations underpinning Mastercard's strategic emergence. Section 4 presents the Mastercard VUCA Orchestrator Framework, followed by a critical discussion of findings in Section 5 and practical recommendations for sustaining innovation, resilience, and strategic agility under VUCA conditions in Section 6.

2.0. Framing Mastercard as an Emerging Organisation

Founded in 1966, Mastercard is a trusted intermediary that is emerging from being a card network into a multiple rail payment technology and data driven company, providing additional payment capabilities, solutions for emerging customer needs and capturing the new payment flows within the complex ecosystem (Mastercard, 2024a). Mastercard's global payments industry ecosystem server customers in over 200 countries (Mastercard, 2024a).

The Mastercard strategy and strategic priorities involves growing its core business, diversification of geographies, customers and leveraging organic and inorganic strategies (for example USD 2.8 billion spent on acquisitions in 2024) to building new areas for the future, focussing on consumer payments, commercial and new payment flows and services and other solutions (Mastercard, 2024a). Mastercard competing with general purpose payment networks (Visa, JCB, American Express, Discover and China UnionPay), debit and local networks, real-time account based systems, digital wallets and fintechs, digital public infrastructure and other central bank and government backed solutions, digital currencies and service and solution providers for example for open banking solutions (Mastercard, 2024a).

The Mastercard financials for 2024 are showing double-digit growth rates for example Net Revenue grew by 12% to USD 28.2 billion, Gross Dollar Volume grew by 11% to USD 9.8 trillion dollars, Cross-border volume grew by 18% and switched transactions grew by 11% to 159.4 billion (Mastercard, 2024a). Based on the 2025 second quarter financial results, the Mastercard continues on the growth trajectory for the quarter with Net Revenue growing by 17% to USD 8.1 billion, Gross Dollar volume up by 9%, and Cross-border volume up by 15% (Mastercard, 2025d). One may reasonably conclude that the growth rates are due to the reinvention by Mastercard.

Emerging firms are portrayed by characteristics such as disruption, innovation, risk navigation, entrepreneurial leadership and scalability (Guterman, 2024). Entrepreneurial approach helps to respond to the shocks from disruption, while innovation bolsters the resilience through resource and capability diversification (Pizzichini et al., 2025). Mastercard launched Tap Payments in November 2024 to launch a global first global-first Click to Pay with Payment Passkey service for secure ecommerce transactions (Mastercard, 2024e). By 2028, online payment fraud is forecasted to be in excess of USD 91 billion for merchants, based on a 2023 study (Mastercard, 2025f). The use of AI in security services by Mastercard blocked over USD 20 billion worth of fraud over a period of 12 months (Marr, 2024).

Mastercard's strategic emergence in high growth markets for example in Africa with strategic partnerships for example in 2019 with Airtel (Mastercard, 2019) and 2024 with MTN Group Fintech across 13 markets in Africa, driving acceleration of mobile money ecosystem (Mastercard, 2024d) and with Orange Middle East and Africa in 2024 (Mastercard, 2024g). Out of Africa's more than 1.3 billion population and only 43% have a bank account and 45% have mobile money accounts, resulting in more than 90% of all transactions and payments are done by cash (Mastercard, 2024c). Further, in Africa international remittance services demand is soaring with in excess of USD 2 billion being remitted daily, representing 40% of the GDP of Sub-Saharan Africa (Mastercard, 2024d). These strategic partnerships unlocks MTN's 290 million subscribers and 60 million active monthly Mobile Money wallets (Mastercard, 2024d), while the Airtel partnership unlocks 100m subscribers (Mastercard, 2019) and Orange Middle East and Africa unlocks in excess of 160 million subscribers and 37 million active Orange Money accounts across 17 African countries (Mastercard, 2024g).

From the analysis despite being widely viewed as an established global organisation, most facets of the industry in which Mastercard operates are emerging, whether it is markets and industries, opportunity areas, payment providers, technologies like Artificial Intelligence (AI), laws, risks and customer and market opportunities. Therefore, Mastercard is chosen to understand the trajectory on an emerging organisation because it embodies an ironic case of being an established and large accelerated global

organisation that is however emerging as a dynamic entity striving to reshape itself for continued relevance and leadership through various strategic renewal efforts in the face of disruptive forces within the VUCA environment.

3.0. THEORETICAL FRAMEWORK

This section synthesizes five complementary theoretical perspectives that collectively illuminate Mastercard's strategic emergence and innovation trajectory within a volatile, uncertain, complex, and ambiguous (VUCA) environment. The integration of these theories Open Innovation Management Theory, Ambidexterity Theory, Dynamic Capabilities Theory, Platform and Network Effects Theory, and Ecosystem Theory provides the foundation for developing the Mastercard VUCA Orchestrator Framework proposed in this paper.

3.1 Open Innovation Management Theory

Pioneered by Chesbrough (2003), Open Innovation Management Theory emphasizes that organisations must transcend internal R&D boundaries by integrating external knowledge, technologies, and collaborations to accelerate innovation and market responsiveness. This paradigm shift from closed innovation to open systems allows firms to leverage complementary capabilities from diverse actors in the ecosystem (Baldwin et al., 2024; Xie & Yu, 2025). For Mastercard, open innovation manifests through strategic collaborations with fintech start-ups, developers, and technology partners under initiatives such as Start Path and the Mastercard Developer Platform (Mastercard, 2025e; Mastercard, 2025c). These engagements enhance innovation agility, knowledge exchange, and co-creation, aligning with research suggesting that open innovation fosters resilience and green innovation through dynamic capabilities (Cassânego et al., 2025). The theory underscores that Mastercard's sustained competitiveness stems not only from proprietary assets but also from its ability to orchestrate external partnerships to co-generate value.

3.2 Ambidexterity Theory

Ambidexterity Theory originating from Duncan (1976) and refined by March (1991) explains an organisation's capacity to balance exploration (innovation and experimentation) and exploitation (efficiency and optimization) simultaneously. Within dynamic environments, ambidexterity supports strategic renewal by combining stability with adaptability (Kassotaki, 2022; Marin Idarraga et al., 2025). Mastercard exemplifies organisational ambidexterity through its dual strategy of growing its core payment networks (exploitation) while investing in new frontiers such as open banking, AI-driven fraud intelligence, and digital assets (exploration) (Mastercard, 2024a; Marr, 2024). Studies show that ambidexterity enhances firm performance by positioning innovation as a mediating factor between stability and transformation (Campbell et al., 2025; Sarmiento et al., 2024). For Mastercard, this theoretical lens elucidates how it sustains operational efficiency while fostering breakthrough innovations critical for long-term resilience in the VUCA ecosystem.

3.3 Dynamic Capabilities Theory

Dynamic Capabilities Theory, introduced by Teece, Pisano, and Shuen (1997), posits that firms sustain competitive advantage through their ability to sense opportunities and threats, seize them through resource reconfiguration, and transform operations to adapt continuously (Li et al., 2025; Shiferaw & Amentie Kero, 2024). These higher-order capabilities are especially critical in volatile markets where static competencies rapidly erode. Mastercard demonstrates strong dynamic capabilities through its AI-powered decision intelligence systems, tokenization initiatives, and digital transformation of payments infrastructure (Mastercard, 2024f; Mastercard, 2025d). The company's capacity to anticipate regulatory shifts, invest in emerging technologies, and realign resources for new market opportunities reflects the dynamic sensing and seizing processes identified in the literature (de Paula Pereira et al., 2024; Al-Moaid & Almarhdi, 2024). This theory provides an interpretive lens for Mastercard's strategic agility and its ability to sustain innovation-led growth despite systemic uncertainty.

3.4 Platform and Network Effects Theory

Rooted in the work of Rochet and Tirole (2003) and advanced by Cusumano, Gawer, and Yoffie (2019), Platform and Network Effects Theory explain how digital platforms create value by enabling interactions among interdependent participants, producing self-reinforcing network effects. The greater the number of users or partners engaging on a platform, the higher its value proposition becomes, fostering exponential growth and market dominance (Goertler et al., 2025; Sobota et al., 2025). Mastercard operates multiple interlinked platforms including the Open Banking Platform, Smart Data Platform,

VocaLink Network, and Mastercard Move that interconnect consumers, merchants, banks, fintechs, and governments (Mastercard, 2024a; Mastercard, 2025b). These multi-sided networks exemplify how platform orchestration and digital trust facilitate scalable innovation and systemic interoperability (Zander et al., 2025; Zeng et al., 2025). The theory contextualizes Mastercard's evolution from a card network into a platform-based ecosystem orchestrator, leveraging network effects for sustained growth.

3.5 Ecosystem Theory

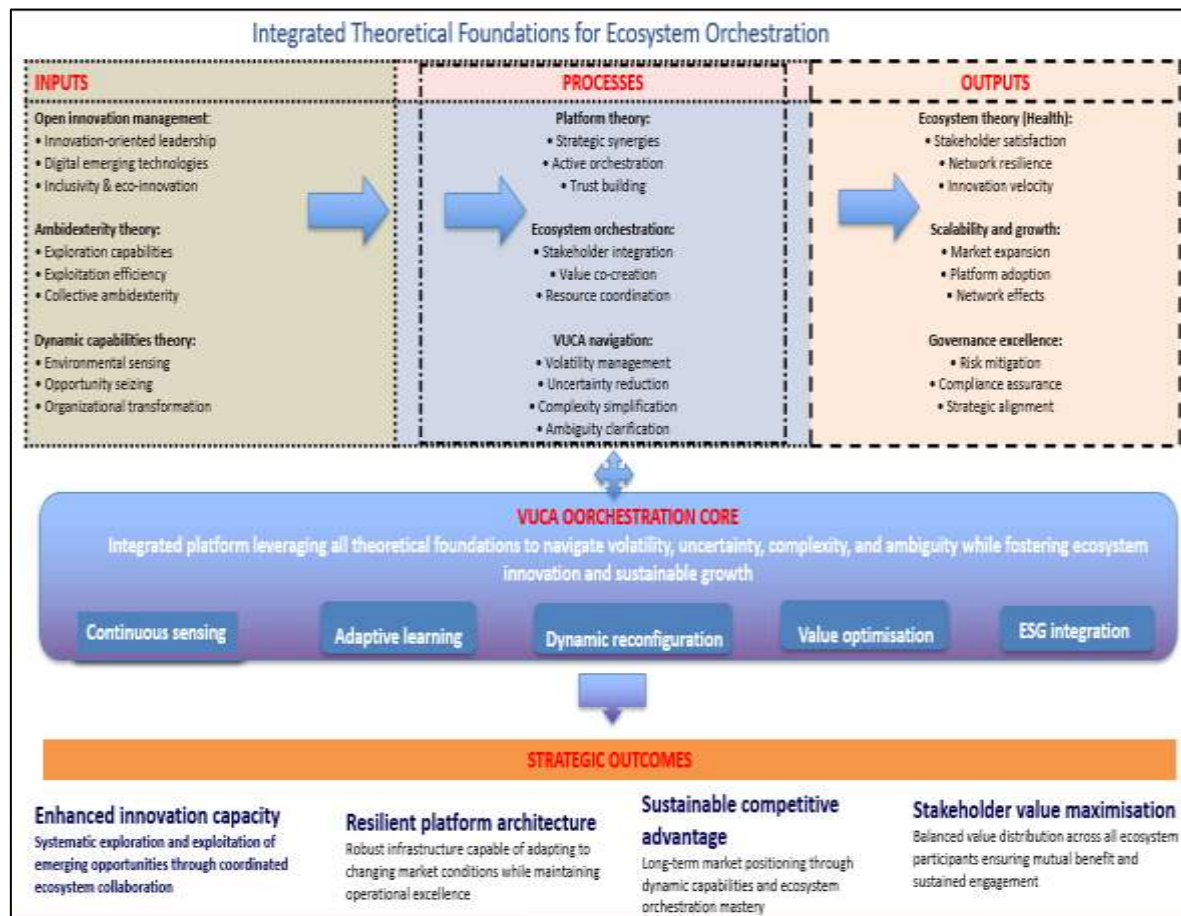
Ecosystem Theory, popularized by Iansiti and Levien (2004) and later expanded by Jacobides, Cennamo, and Gawer (2018), views organisations as interdependent entities embedded within a collaborative system of value creation. Ecosystem success depends on complementarity, modularity, scalability, and governance among participants (Sousa Resende et al., 2025; Pizzichini et al., 2025). Mastercard's ecosystem comprises banks, regulators, fintechs, telcos, and technology providers operating under its governance model, emphasizing interoperability, trust, and shared standards (Mastercard, 2024c; Mastercard, 2024a). Through this structure, Mastercard acts as a keystone player facilitating innovation, coordinating ecosystem health, and enabling collective resilience (Iansiti & Levien, 2004; Jacobides et al., 2018). This theory reinforces that Mastercard's sustained emergence is rooted not solely in its internal resources, but in its ability to govern, scale, and nurture a healthy digital payments ecosystem.

Collectively, these five theories converge to form the conceptual basis for the Mastercard VUCA Orchestrator Framework. Open Innovation and Ambidexterity explain how innovation and operational balance drive renewal; Dynamic Capabilities clarify the mechanisms for adaptation and transformation; Platform Theory reveals how networked interactions create scalable value; and Ecosystem Theory situates Mastercard's evolution within an interconnected system of co-creation and trust. The synthesis of these perspectives underscores Mastercard's role as an innovation-driven emerging venture, continuously evolving to orchestrate resilience, relevance, and leadership in a turbulent global landscape.

4.0 Developing a Conceptual Framework

The Mastercard VUCA Orchestrator Framework conceptualizes how Mastercard strategically navigates and sustains its emergence within a volatile, uncertain, complex, and ambiguous (VUCA) environment. It integrates insights from five interrelated theoretical foundations: Open Innovation Management, Ambidexterity, Dynamic Capabilities, Platform and Network Effects, and Ecosystem Theory—to explain Mastercard's innovation orchestration, strategic adaptability, and long-term resilience. The framework comprises five interlinked components: Inputs, Processes, Outputs, VUCA Orchestration Core, and Strategic Outcomes.

Figure 1: Mastercard VUCA Orchestrator Framework



Source: Author generated

4.1 Inputs: Foundational Capabilities

The *inputs* represent Mastercard's underlying innovation and capability foundations that fuel its strategic emergence. These include Open Innovation Hubs, the Ambidexterity Engine, and the Dynamic Capabilities Core. Through open innovation, Mastercard collaborates with fintech start-ups and technology partners to accelerate solution development, as seen in programs such as *Start Path* and *Mastercard Developers* (Chesbrough, 2003; Mastercard, 2025c; Cassânego et al., 2025). The *Ambidexterity Engine* captures Mastercard's ability to balance exploitation of its core card business and exploration of emerging payment solutions such as open banking, digital assets, and real-time payments (March 1991; Kassotaki, 2022; Mastercard, 2024a). Meanwhile, the *Dynamic Capabilities Core* highlights Mastercard's capacity to sense opportunities, seize them through resource reallocation, and transform operations to maintain competitiveness (Teece et al., 1997; Li et al., 2025). Together, these inputs reflect the theoretical underpinnings that enable Mastercard to innovate, adapt, and sustain growth under VUCA conditions.

4.2 Processes: Orchestration and Value Creation Mechanisms

The *processes* describe how Mastercard operationalizes innovation through platform orchestration, ecosystem collaboration, and VUCA navigation mechanisms. Drawing on *Platform Theory* (Rochet & Tirole, 2003; Cusumano et al., 2019), Mastercard creates value by connecting multiple stakeholders' banks, merchants, consumers, fintechs, and governments through interoperable digital platforms such as *Mastercard Move* and *VocaLink* (Mastercard, 2024a; Mastercard, 2025b). Ecosystem collaboration, grounded in *Ecosystem Theory* (Iansiti & Levien, 2004; Jacobides et al., 2018), ensures alignment, modularity, and trust among participants, while maintaining ecosystem health through governance and shared standards (Zeng et al., 2025). Moreover, VUCA navigation leverages data analytics and scenario planning to manage volatility, reduce uncertainty, and simplify complexity (Bennett & Lemoine, 2014; Chaudhuri et al., 2024). Collectively, these processes enable Mastercard to co-create and sustain value in an interconnected and rapidly evolving digital environment.

4.3 Outputs: Value Realisation and Organisational Health

The *outputs* of the framework are the measurable outcomes of Mastercard's orchestration activities—namely, ecosystem health and resilience, scalability and growth, and governance excellence.

Ecosystem health is demonstrated by Mastercard's ability to maintain partner engagement, innovation velocity, and trust across its network (Iansiti & Levien, 2004; Mastercard, 2024c). Scalability and growth reflect Mastercard's expansion across markets and technologies, leveraging network effects for value creation (Zander et al., 2025). Governance excellence emphasizes the firm's commitment to ethical innovation, compliance, and sustainability, including adherence to AML, data protection, and ESG principles (Mastercard, 2024a; Bag et al., 2025). These outputs affirm Mastercard's resilience and capacity to sustain value amid ongoing technological and regulatory flux.

4.4 VUCA Orchestration Core

At the heart of the framework lies the VUCA Orchestration Core, which integrates adaptive learning, continuous sensing, dynamic reconfiguration, value optimization, and ESG integration. This core represents Mastercard's ability to *synchronize its internal capabilities with external environmental shifts* (Menaria, 2024; Pizzichini et al., 2025).

Through adaptive learning and feedback loops, Mastercard anticipates emerging risks and opportunities, aligning with Teece's (1997) dynamic capability cycle. Continuous sensing through AI-powered analytics and data-driven decision-making enables real-time market intelligence (Marr, 2024). The ESG integration component connects Mastercard's innovation strategy to societal outcomes, reinforcing trust and long-term sustainability (Mastercard, 2024b; Bag et al., 2025). The orchestration core thus enables Mastercard to navigate volatility, reduce uncertainty, and transform ambiguity into strategic clarity.

4.5 Strategic Outcomes

The *strategic outcomes* represent the ultimate value derived from Mastercard's orchestration process, encompassing sustainable competitive advantage, resilient platform architecture, continuous innovation capacity, and stakeholder value maximization. These outcomes reflect the synergistic effect of the framework's components, where innovation and ecosystem resilience become mutually reinforcing.

By leveraging ambidexterity, dynamic capabilities, and open innovation, Mastercard achieves sustained adaptability and market leadership (Campbell et al., 2025; Li et al., 2025). Its platform-based and ecosystem-led strategy positions it not merely as a transaction intermediary but as an innovation orchestrator driving inclusive, scalable, and responsible growth in the global digital economy (Jacobides et al., 2018; Mastercard, 2024a).

In sum, the *Mastercard VUCA Orchestrator Framework* illustrates that sustained emergence in a turbulent environment depends on a firm's ability to integrate innovation ecosystems, ambidextrous leadership, and dynamic capabilities into a coherent system of orchestration. Through this model, Mastercard embodies the transformation of an established enterprise into an *innovation-driven emerging venture*, capable of navigating uncertainty while creating shared value across a connected global ecosystem.

5.0 DISCUSSION

The analysis of Mastercard's strategic evolution reveals that its sustained emergence in a volatile, uncertain, complex, and ambiguous (VUCA) world is deeply rooted in the interplay between innovation, strategic agility, and ecosystem orchestration. This section synthesizes five critical dimensions—innovation and technology, strategic planning and agility, organisational structure and culture, regulatory and legal considerations, and customer and stakeholder engagement—drawing from theory and evidence to evaluate Mastercard's position as an *innovation-driven emerging venture*.

5.1 Innovation and Technology

Innovation and technological adaptation form the foundation of Mastercard's strategic renewal. Consistent with *Open Innovation Theory* (Chesbrough, 2003; Baldwin et al., 2024), Mastercard's collaboration with fintechs, AI firms, and developers through initiatives such as *Start Path* and *Mastercard Developers* demonstrates how external partnerships fuel continuous ideation and co-creation. These collaborations enable the rapid prototyping of new digital payment technologies, aligning with findings that open innovation accelerates organisational learning and green innovation (Cassânego et al., 2025). Mastercard's adoption of artificial intelligence in fraud prevention and its leadership in tokenization reflect the *Dynamic Capabilities* of sensing, seizing, and transforming (Teece et al., 1997; Li et al., 2025). This technological orchestration underscores the firm's ability to manage VUCA volatility through strategic innovation.

5.2 Strategic Planning and Agility

Mastercard's strategic agility is demonstrated by its capacity to balance efficiency with adaptability key traits of *organisational ambidexterity* (Campbell et al., 2025). By simultaneously strengthening its core business (exploitation) and investing in digital assets, open banking, and AI-driven ecosystems (exploration), Mastercard aligns with research showing that ambidextrous firms outperform their peers in dynamic markets (Sarmiento et al., 2024; Hietala & Päivärinta, 2025). The company's dual strategy of organic innovation and strategic acquisitions (e.g., Finicity and Recorded Future) exemplifies deliberate orchestration of internal and external capabilities (Mastercard, 2024a; Mastercard, 2020). This strategic posture enhances Mastercard's ability to adapt to VUCA dynamics through both proactive sensing and responsive transformation (de Paula Pereira et al., 2024).

5.3 Organisational Structure and Culture

Mastercard's culture embodied in *The Mastercard Way* fosters experimentation, inclusivity, and purpose-driven innovation (Mastercard, 2024a). This aligns with research emphasizing that innovation-oriented leadership and organisational culture are vital enablers of ambidexterity and dynamic learning (Martin et al., 2025; Du & Chen, 2018). The firm's cross-functional structures, collaborative innovation labs, and distributed decision-making promote a culture of exploration while maintaining operational discipline. Such a configuration supports the coexistence of evolutionary and revolutionary change, enhancing the organisation's adaptability within a complex environment (Tushman & O'Reilly, 1997; Kassotaki, 2022).

5.4 Regulatory and Legal Considerations

Operating across more than 200 jurisdictions, Mastercard faces significant regulatory complexity. Consistent with *Ecosystem Theory* (Jacobides et al., 2018; Iansiti & Levien, 2004), its ability to sustain trust and compliance within multi-stakeholder ecosystems is a key determinant of ecosystem health and legitimacy. The company's governance framework covering anti-money laundering (AML), data privacy (GDPR, CCPA), and ethical AI usage illustrates how *platform governance* underpins digital trust (Zeng et al., 2025; Mastercard, 2024c). Regulatory adaptability thus becomes both a strategic necessity and a competitive differentiator in Mastercard's ecosystem leadership (Sousa Resende et al., 2025).

5.5 Customer and Stakeholder Engagement

Customer engagement in Mastercard's ecosystem extends beyond transactions to value co-creation and shared innovation. The company's multi-rail payment systems and loyalty platforms illustrate *Platform and Network Effects Theory*, where increasing user participation amplifies overall value creation (Rochet & Tirole, 2003; Cusumano et al., 2019). Mastercard's ecosystem-driven partnerships in Africa with MTN, Airtel, and Orange demonstrate the scalability of such network effects in emerging markets (Mastercard, 2024d; Mastercard, 2024g). This approach aligns with research emphasizing that collaboration and co-innovation enhance stakeholder inclusivity and ecosystem resilience (Pizzichini et al., 2025; Pesce & Franzè, 2025).

Taken together, these five dimensions demonstrate that Mastercard's strategic emergence is neither accidental nor linear but rather an orchestrated process grounded in innovation ecosystems, ambidextrous leadership, and dynamic reconfiguration. By aligning open innovation, dynamic capabilities, and platform orchestration, Mastercard exemplifies the modern *innovation-driven emerging venture*—an organisation that continually reinvents itself to sustain relevance and leadership under VUCA conditions (Bennett & Lemoine, 2014; Rehman et al., 2025). The findings affirm that long-term sustainability in digital ecosystems depends not only on technological innovation but also on governance, collaboration, and responsible leadership.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This paper concludes that Mastercard exemplifies an *innovation-driven emerging venture*—a globally established enterprise that continuously redefines its strategic identity through innovation, agility, and ecosystem orchestration. By integrating insights from **Open Innovation, Ambidexterity, Dynamic Capabilities, Platform, and Ecosystem Theories**, the study conceptualized the *Mastercard VUCA Orchestrator Framework* as a model for understanding organisational resilience and strategic renewal under volatile, uncertain, complex, and ambiguous (VUCA) conditions.

The analysis demonstrates that Mastercard's long-term success lies in its ability to dynamically balance *exploration* and *exploitation* (March, 1991; Campbell et al., 2025), continuously sense and seize market opportunities (Teece et al., 1997; Li et al., 2025), and leverage open innovation networks to accelerate co-

creation and technology diffusion (Chesbrough, 2003; Cassânego et al., 2025). Moreover, Mastercard's evolution from a payment processor to a digital platform orchestrator underscores the strategic importance of platform economies and ecosystem governance (Rochet & Tirole, 2003; Jacobides et al., 2018).

The findings further suggest that Mastercard's resilience and sustainability stem from its capacity to integrate *technological innovation*, *trust-based governance*, and *ESG-driven value creation* into its strategic core (Mastercard, 2024b; Bag et al., 2025). The company's transformation trajectory illustrates that, in a VUCA environment, organisational emergence is an ongoing process of adaptation where learning, collaboration, and innovation converge to sustain competitiveness.

6.2 Recommendations

Drawing on the theoretical synthesis and practical insights, five interrelated recommendations are proposed to sustain Mastercard's strategic evolution and to guide other emerging organisations operating in turbulent contexts:

(1) Deepen Open Innovation Partnerships

Mastercard should continue expanding its *open innovation ecosystem* by engaging with fintechs, AI start-ups, and regulatory bodies to co-develop next-generation payment solutions (Chesbrough, 2003; Hietala & Pääväranta, 2025). Strengthening collaboration pipelines through initiatives like *Start Path* and *Mastercard Labs* will enable broader co-creation and faster market adaptation while embedding sustainability and inclusivity within innovation outcomes (Cassânego et al., 2025).

(2) Strengthen Dynamic Capabilities for Market Foresight

To maintain strategic agility, Mastercard must continually invest in data analytics, AI, and scenario-based foresight tools that enhance its ability to *sense* environmental shifts and *seize* emerging opportunities (Teece et al., 1997; de Paula Pereira et al., 2024). Strengthening dynamic capabilities across managerial and technological levels will reinforce resilience against regulatory disruptions, cyber threats, and market volatility (Foss & Mazzelli, 2025).

(3) Optimize Platform Governance and Digital Trust

As the payments ecosystem expands, Mastercard should refine its *platform governance mechanisms* to ensure transparency, interoperability, and equitable value sharing among ecosystem participants (Rochet & Tirole, 2003; Zeng et al., 2025). Continued investment in ethical AI, cybersecurity, and responsible data stewardship will enhance consumer trust and sustain network growth (Mastercard, 2024c).

(4) Deepen Ecosystem Co-creation and Regulatory Collaboration

In alignment with *Ecosystem Theory* (Iansiti & Levien, 2004; Jacobides et al., 2018), Mastercard should broaden cross-sector partnerships particularly in emerging markets by co-creating with governments, telcos, and local fintechs to drive financial inclusion. Structured regulatory collaboration and shared innovation sandboxes will foster systemic trust and adaptive governance (Sousa Resende et al., 2025).

(5) Expand Multi-Rail Orchestration and Sustainable Growth

Mastercard's *multi-rail strategy* integrating cards, open banking, real-time payments, and digital assets should continue to evolve through strategic investments in API ecosystems and digital infrastructure (Mastercard, 2024a; Mastercard, 2025c). Embedding *ESG imperatives* into new payment architectures will ensure Mastercard's growth remains inclusive, responsible, and aligned with global sustainability goals (Bag et al., 2025).

6.3 Final Reflection

In conclusion, Mastercard's strategic journey offers a blueprint for how established enterprises can behave like *emerging ventures* balancing scale with agility, innovation with governance, and profitability with purpose. The *Mastercard VUCA Orchestrator Framework* demonstrates that resilience in the modern economy depends on the continuous orchestration of dynamic capabilities, open innovation, and collaborative ecosystems. For both academics and practitioners, Mastercard's experience reinforces a key insight: in a VUCA world, the future belongs not to the largest organisations, but to those most adept at learning, innovating, and co-evolving with their ecosystems (Bennett & Lemoine, 2014; Rehman et al., 2025).

REFERENCES

1. Abdurrahman, A., Gustomo, A., & Prasetyo, E. A. (2024). Impact of dynamic capabilities on digital transformation and innovation to improve banking performance: A TOE framework study. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), 100215. <https://doi.org/10.1016/j.joitmc.2024.100215>
2. Al-Moaid, N. A. A., & Almarhdi, S. G. (2024). Developing dynamic capabilities for successful digital transformation projects:

- the mediating role of change management. *Journal of Innovation and Entrepreneurship*, 13(1). <https://doi.org/10.1186/s13731-024-00446-9>
3. Bag, S., Routray, S., & Aytac, B. (2025). Linking digital transformation to ESG outcomes: A mixed-methods study on SRM capability and coopetition in supply networks. *Journal of Environmental Management*, 392(June), 126801. <https://doi.org/10.1016/j.jenvman.2025.126801>
 4. Baldwin, C. Y., Bogers, M. L. A. M., Kapoor, R., & West, J. (2024). Focusing the ecosystem lens on innovation studies. *Research Policy*, 53(3), 104949. <https://doi.org/10.1016/j.respol.2023.104949>
 5. Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes : Understanding threats to performance in a VUCA world. *Business Horizons*, 57(3), 311–317. <https://doi.org/10.1016/j.bushor.2014.01.001>
 6. Burgelman, R. A., Snihur, Y., & Thomas, L. D. W. (2023). Strategy-Making and Organisational Evolution. In *Strategy-Making and Organisational Evolution* (Issue March). <https://doi.org/10.1017/9781108987684>
 7. Campbell, R. J., Short, C. E., & Graffin, S. D. (2025). Balancing the radical and the incremental: CEO affiliative humor and organisational ambidexterity. *Research Policy*, 54(1), 105131. <https://doi.org/10.1016/j.respol.2024.105131>
 8. Cassânego, V. M., Moralles, H. F., Nascimento, D. L. de M., & Tortorella, G. L. (2025). Exploring the role of open innovation and artificial intelligence in green innovation: A dynamic capabilities approach. *Journal of Innovation and Knowledge*, 10(5). <https://doi.org/10.1016/j.jik.2025.100774>
 9. Chaudhuri, R., Chatterjee, S., Mariani, M. M., & Wamba, S. F. (2024). Assessing the influence of emerging technologies on organisational data driven culture and innovation capabilities: A sustainability performance perspective. *Technological Forecasting and Social Change*, 200(June 2023), 123165. <https://doi.org/10.1016/j.techfore.2023.123165>
 10. Chefor, E., Lyngdoh, T., Hochstein, B., Mukundhan, K. V., & Guda, S. (2025). Extending agency theory in sales management: A systematic literature review and future research agenda. *Industrial Marketing Management*, 125(December 2023), 195–214. <https://doi.org/10.1016/j.indmarman.2025.01.001>
 11. Chesbrough, H. W. (2003). *Open Innovation The New Imperative for Creating and Profiting from Technology* (Vol. 17). <https://www.sustanciainfinita.com/wp-content/uploads/2017/03/LIBRO-Henry-Chesbrough-Open-Innovation.pdf>
 12. de Almeida Leite, E. M., & Audretsch, D. (2025). Organisational emergence theory: addressing invisible conflicts and emerging dynamics in entrepreneurship. *Review of Managerial Science*. <https://doi.org/10.1007/s11846-025-00916-8>
 13. de Paula Pereira, G., de Medeiros, J. F., Kolling, C., Ribeiro, J. L. D., Morea, D., & Iazzolino, G. (2024). Using dynamic capabilities to cope with digital transformation and boost innovation in traditional banks. *Business Horizons*, 67(4), 317–330. <https://doi.org/10.1016/j.bushor.2024.03.006>
 14. Du, J., & Chen, Z. (2018). International Journal of Innovation Studies Applying Organisational Ambidexterity in strategic management under a “ VUCA ” environment : Evidence from high tech companies in China. *International Journal of Innovation Studies*, 2(1), 42–52. <https://doi.org/10.1016/j.ijis.2018.03.003>
 15. Foss, N. J., & Mazzelli, A. (2025). Bringing managers and management back into strategy: Interfaces and dynamic managerial capabilities. *Journal of Business Research*, 186(September 2024), 114947. <https://doi.org/10.1016/j.jbusres.2024.114947>
 16. Goertler, T., Papert, M., Fischer, I., & Schmidt, M. (2025). Building digital platform ecosystems: A synthetization of fundamental design topics from a literature review. *Digital Business*, 5(1), 100109. <https://doi.org/10.1016/j.digbus.2025.100109>
 17. Gutterman, A. S. (2024). *A Guide for Emerging Companies*.
 18. Hietala, H., & Päiväranta, T. (2025). Governing collective ambidexterity: Antecedents, mechanisms, and outcomes in digital service ecosystems. *Government Information Quarterly*, 42(1). <https://doi.org/10.1016/j.giq.2024.102001>
 19. Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems. *Strategic Management Journal*, 39(8), 2255–2276. <https://doi.org/10.1002/smj.2904>
 20. Kassotaki, O. (2022). Review of Organisational Ambidexterity Research. *SAGE Open*, 12(1). <https://doi.org/10.1177/21582440221082127>
 21. Katz, J., & Gartner, W. B. (2016). Properties of emerging organisations. *Entrepreneurship as Organizing: Selected Papers of William B. Gartner*, November, 47–59. <https://doi.org/10.5465/amr.1988.4306967>
 22. Khizar, H. M. U., Kousar, S., & Adomako, S. (2025). Digital Technologies in Innovation Ecosystem: A Systematic Review of Current Trends and Future Perspective. *R and D Management*, February. <https://doi.org/10.1111/radm.12758>
 23. Klausser, V. J., Salampasis, D., & Kaiser, A. (2021). Driving the Future of FinTech-led Transformation in Financial Services: Business Trends and the New Face of Open Innovation (Issue May). https://doi.org/10.1142/9789811239731_0005
 24. Kwartati, F., Maupa, H., & Cahyadi, H. (2025). A Grounded Theory Study on Building Dynamic Capabilities for Sustainable Export Competitiveness. 4(7), 22–29. <https://doi.org/10.56472/25835238/IRJEMS-V4I7P104>
 25. Li, B., Teece, D. J., Baskaran, A., & Chandran, V. G. R. (2025). Dynamic Knowledge Management: A dynamic capabilities approach to knowledge management. *Technovation*, 147(June). <https://doi.org/10.1016/j.technovation.2025.103316>
 26. Liang, L., & Li, Y. (2024). How does organisational resilience promote firm growth ? The mediating role of strategic change and managerial myopia. *Journal of Business Research*, 177(May 2023), 114636. <https://doi.org/10.1016/j.jbusres.2024.114636>
 27. Liao, H. T., Pan, C. L., & Wu, Z. (2024). Digital transformation and innovation and business ecosystems: A bibliometric analysis for conceptual insights and collaborative practices for ecosystem innovation. *International Journal of Innovation Studies*, 8(4), 406–431. <https://doi.org/10.1016/j.ijis.2024.04.003>
 28. Marco Iansiti & Roy Levien. (2004). *Strategy as Ecology*. Harvard Business Review. <https://hbsp.harvard.edu/product/R0403E-PDF-ENG>
 29. Marin Idarraga, D. A., Hurtado González, J. M., Cabello Medina, C., & Sabidussi, A. (2025). Ambidexterity and innovation: a systematic and meta-analytic approach to mediating effects on performance. *Technology Analysis and Strategic Management*, April, 1–18. <https://doi.org/10.1080/09537325.2025.2464885>
 30. Marr, B. (2024). How Mastercard Uses AI Strategically: A Case Study. <https://bernardmarr.com/how-mastercard-uses-ai-strategically-a-case-study/>
 31. Martin, A., Horvat, D., Jäger, A., & Pilav-Velić, A. (2025). The impact of top management team’s innovation orientation on

- organisational ambidexterity in transitional economies: Evidence from Bosnia and Herzegovina. *Technology in Society*, 82(May). <https://doi.org/10.1016/j.techsoc.2025.102939>
32. Mastercard. (2019). Airtel Africa Announces Partnership with Mastercard to Transform Digital Payments Landscape and Connect 100 Million Consumers in Africa. <https://www.mastercard.com/news/eemea/en/newsroom/press-releases/en/2019/october/airtel-africa-announces-partnership-with-mastercard-to-transform-digital-payments-landscape-and-connect-100-million-consumers-in-africa/>
 33. Mastercard. (2020). Mastercard Extends Open Banking Efforts with Close of Finicity Acquisition. Investor Relations. <https://investor.mastercard.com/investor-news/investor-news-details/2020/Mastercard-Extends-Open-Banking-Efforts-with-Close-of-Finicity-Acquisition/default.aspx>
 34. Mastercard. (2024a). 2024 Annual Report. Latest Annual Report & Proxy. https://s25.q4cdn.com/479285134/files/doc_financials/2024/ar/MA-12-31-2024-10-K-as-filed-with-exhibits.pdf
 35. Mastercard. (2024b). Doing well by doing good. https://s25.q4cdn.com/479285134/files/doc_downloads/2025/07/mastercard-impact-report-2024.pdf
 36. Mastercard. (2024c). Mastercard 2024 Impact Report. Investor Relations. https://s25.q4cdn.com/479285134/files/doc_downloads/2025/07/mastercard-impact-report-2024.pdf
 37. Mastercard. (2024d). Mastercard and MTN Group Fintech partner to drive acceleration of mobile money ecosystem in Africa across 13 markets. https://www.mastercard.com/news/eemea/en/newsroom/press-releases/en/2024/february/mastercard-and-mtn-group-fintech-partner-to-drive-acceleration-of-mobile-money-ecosystem-in-africa-across-13-markets/?utm_source=chatgpt.com
 38. Mastercard. (2024e). Mastercard collaborates with Tap Payments on first global launch of 'Click to Pay' with Payment Passkey service for ecommerce. https://www.mastercard.com/news/eemea/en/newsroom/press-releases/en/2024/november/mastercard-collaborates-with-tap-payments-on-first-global-launch-of-click-to-pay-with-payment-passkey-service-for-ecommerce/?utm_source=chatgpt.com
 39. Mastercard. (2024f). Mastercard supercharges consumer protection with gen AI. <https://www.mastercard.com/us/en/news-and-trends/press/2024/february/mastercard-supercharges-consumer-protection-with-gen-ai.html>
 40. Mastercard. (2024g). Orange Middle East and Africa and Mastercard partner to digitize payments for millions across Africa by 2025. <https://www.mastercard.com/news/eemea/en/newsroom/press-releases/en/2024/october/orange-middle-east-and-africa-and-mastercard-partner-to-digitize-payments-for-millions-across-africa-by-2025/>
 41. Mastercard. (2024h). The Invisible Handshake How tokenization is revolutionizing digital interactions. https://www.mastercard.com/news/insights/mastercard-signals/2024/tokenization-the-invisible-handshake/?utm_source=chatgpt.com
 42. Mastercard. (2025a). 2025 Governance Update. Investor Relations. https://s25.q4cdn.com/479285134/files/doc_financials/2025/ar/2025-Mastercard-Governance-Overview.pdf
 43. Mastercard. (2025b). cross-border services One connection to reach the world. <https://b2b.mastercard.com/cross-border-services/>
 44. Mastercard. (2025c). Mastercard Developers. <https://developer.mastercard.com/products>
 45. Mastercard. (2025d). Mastercard Incorporated Second Quarter 2025 Financial Results Available on Company's Website. <https://investor.mastercard.com/investor-news/investor-news-details/2025/Mastercard-Incorporated-Second-Quarter-2025-Financial-Results-Available-on-Company's-Website/default.aspx>
 46. Mastercard. (2025e). PARTNER WITH US | Start path. <https://www.mastercard.com/us/en/innovation/partner-with-us/start-path.html#:~:text=Start Path is Mastercard's award-winning startup engagement program,Startups that align with Mastercard's strategy and business.>
 47. Mastercard. (2025f). Say goodbye to manual card entry – we're ushering in a new era of one-click online payments. <https://www.mastercard.com/us/en/news-and-trends/stories/2025/one-click-checkout.html>
 48. Mastercard. (2025g). transformative power of AI in AFRICA. August.
 49. Menaria, N. (2024). Comparative Analysis of VUCA and BANI Frameworks. 6(2), 1–4.
 50. Michael A. Cusumano, A. G. and D. B. Y. (2019). The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power. <https://www.hbs.edu/faculty/Pages/item.aspx?num=56021>
 51. Minciu, M., Dima, C., Pacurari, N., & Manta, A.-M. (2021). THE PERFORMANCE OF ORGANISATIONS IN THE CONTEXT OF THE VUCA WORLD. 85, 85–91.
 52. Pesce, D., & Franzè, C. (2025). When digital platforms meet tradition: Phyigital innovation in the cultural heritage. *Journal of Engineering and Technology Management - JET-M*, 77(June), 1–21. <https://doi.org/10.1016/j.jengtecman.2025.101896>
 53. Pizzichini, L., Briamonte, M. F., Papa, A., & Del Giudice, M. (2025). Innovation ecosystem resilience as a “coping” strategy to face deglobalization: The role of entrepreneurial orientation and affective/cognitive responses. *Technovation*, 148(June), 103334. <https://doi.org/10.1016/j.technovation.2025.103334>
 54. Rabah, A., & Mounir, R. (2024). Evolution of strategy approaches in management : the journey from the industry vision to the resource-based approach . *Resource-based*. 283–308.
 55. Rehman, S. U., Bresciani, S., Giordino, D., & Abdulmuhsin, A. A. (2025). Exploring the role of knowledge management and organisational agility in an emerging market. *Journal of Innovation and Knowledge*, 10(5), 100761. <https://doi.org/10.1016/j.jik.2025.100761>
 56. Sarmiento, M., Simões, C., & Lages, L. F. (2024). From organisational ambidexterity to organisational performance: The mediating role of value co-creation. *Industrial Marketing Management*, 118(February 2023), 175–188. <https://doi.org/10.1016/j.indmarman.2024.02.010>
 57. Shiferaw, R. M., & Amentie Kero, C. (2024). Dynamic capabilities view practices of business firms: a systematic literature review. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2336309>
 58. Shonubi, O. A. (2025). The role of digital B2B platforms with industry 4.0 technological ecosystems(integration of cloud computing, artificial intelligence and internet of things) as a growth lever. *Sustainable Futures*, 10(September 2024), 101041. <https://doi.org/10.1016/j.sftr.2025.101041>

59. Sinha, D. S. & S. (2020). Journal of Technology Management for Growing Economies Managing in a VUCA World : Possibilities and Pitfalls. 11(1), 17–21.
60. Sobota, V. C. M., Wiarda, M., Coenen, T. B. J., & Ortt, J. R. (2025). How can Platform Ecosystems support Mission-Specific Innovation Systems? Proceedings of the Annual Hawaii International Conference on System Sciences, 8, 6236–6246. <https://doi.org/10.24251/hicss.2025.745>
61. Strobl, A., Shepherd, N. G., & Hughes, P. (2025). Unleashing R&D networks for ambidexterity: The interplay between internal and external networking capabilities. *Industrial Marketing Management*, 124(December 2024), 254–265. <https://doi.org/10.1016/j.indmarman.2024.12.006>
62. Tirole, R. &. (2003). Platform Competition in Two-Sided Markets. *Journal of the European Economic Association*, Volume 1, Issue 4, 1 June. <https://academic.oup.com/jeea/article-abstract/1/4/990/2280902?redirectedFrom=fulltext>
63. Uršič, D., & Čater, T. (2025). Digital innovation in management and business: A comprehensive review, multi-level framework, and future research agenda. *Journal of Business Research*, 197(May). <https://doi.org/10.1016/j.jbusres.2025.115475>
64. Wang, Y., Huang, C., Ye, X., & Zhang, J. (2025a). Linkage and coordination: Industrial digital transformation from the perspective of innovation ecosystem. *Technovation*, 144(April), 103228. <https://doi.org/10.1016/j.technovation.2025.103228>
65. Wang, Y., Huang, C., Ye, X., & Zhang, J. (2025b). Linkage and coordination: Industrial digital transformation from the perspective of innovation ecosystem. *Technovation*, 144(April). <https://doi.org/10.1016/j.technovation.2025.103228>
66. Xie, X., & Yu, H. (2025). Collaborative innovation and knowledge spillovers in open innovation ecosystems: Exploring the roles of network stability and technological niche. *Technological Forecasting and Social Change*, 219(June), 124289. <https://doi.org/10.1016/j.techfore.2025.124289>
67. Zander, U., Lu, L., & Chimenti, G. (2025). The platform economy and futures of market societies: Salient tensions in ecosystem evolution. *Journal of Business Research*, 189(September 2024), 115037. <https://doi.org/10.1016/j.jbusres.2024.115037>
68. Zeng, B., Chotia, V., Ghosh, V., & Cheng, J. (2025). Digital antecedents and mechanisms towards sustainable digital innovation ecosystems: examining the role of circular supply chain resilience. *Technological Forecasting and Social Change*, 218(May). <https://doi.org/10.1016/j.techfore.2025.124220>
69. Zhang, H., Wang, X., & Akhtar, M. W. (2024). Digital transformation, supplier concentration, and CEO financial experience: Unveiling the dynamics of innovation performance in Chinese firms. *Journal of Cleaner Production*, 442(58), 140825. <https://doi.org/10.1016/j.jclepro.2024.140825>