

Contemporary Issues in Social Sciences and Management Practices (CISSMP) ISSN: 2959-1023

Volume 4, Issue 3, September 2025, Pages 131-142 Journal DOI: 10.61503

Journal Homepage: https://www.cissmp.com



Entrepreneurial Orientation, Digital Marketing Capability, Financial Resource Accessibility, and Sustainable Performance: The Mediating Role of Customer Engagement

¹Muhammad Naeem Anjum, ²Fatima Mushtaq & ³Hajira Tahir ¹Associate Professor of Management Sciences, Superior University Layyah Campus, Pakistan. ²UMT -SPA n IHL Lecturer, Pakistan. ³Lecturer, University of Management and Technology Lahore, Pakistan

ABSTRACT

Article History:

Received: Jul 21, 2024

Revised: Aug 12, 2025

Accepted: Sep 19, 2025

Available Online: Sep 30, 2025

Keywords:

Entrepreneurial Orientation, Digital Marketing Capability, Financial Resource Accessibility

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

This study investigates the impact of entrepreneurial orientation, digital marketing capability, and financial resource accessibility on sustainable performance in start-ups, with a focus on the mediating 30, 2025 role of customer engagement. Drawing on data collected from founders and managers of active start-ups in Lahore, Pakistan, the study employs a quantitative survey design and analyzes the responses using structural equation modeling. The results reveal that entrepreneurial orientation, digital marketing capability, and financial resource accessibility significantly enhance customer engagement, which in turn positively influences sustainable performance. Among these predictors, financial resource accessibility demonstrates the strongest direct effect, while digital marketing capability and entrepreneurial orientation exert substantial indirect effects through customer engagement. The mediation analysis proves the conclusion that the customer engagement serves as a key mechanism, which transforms the strategic capabilities and resource availability into the long-term sustainability performance. The research adds to theory by combining entrepreneurship, marketing, and finance in a sustainability-oriented model and provides practical implications of start-ups, policymakers, and entrepreneurship support organizations to maximize sustainable growth by being customer-oriented.

© 2022 The Authors, Published by CISSMP. This is an Open Access article under the Creative Common Attribution Non-Commercial 4.0

Corresponding Author's Email: Fatima.mushtaq@umt.edu.pk

DOI: https://doi.org/10.61503/cissmp.v4i1.336

Citation: Anjum, M. N., Mushtaq, F., & Tahir, H. (2025). Entrepreneurial Orientation, Digital Marketing Capability, Financial Resource Accessibility, and Sustainable Performance: The Mediating Role of Customer Engagement. *Contemporary Issues in Social Sciences and Management Practices*, 4(3), 131-142.

1.0 Introduction

The world of young ventures is unusually changing at an unprecedented speed due to evolving consumer expectations, accelerating digitalization and an increased focus on responsible business practices (Elgarhy and Abou-Shouk 2023). Today start-ups are not only supposed to be innovative, they must also prove their resilience and ability to create long term value despite the lack of resources and uncertain market standings. Sustainability is not an easy but necessary goal since they need to establish credibility in most situations as they consider how their internal processes work (Al Koliby, Mehat et al. 2024). The urge towards economic, social, and environmental accountability may come sooner to the start-ups than it does to established companies and there is no room to experiment (Yaqub, Yaqub et al. 2024). As such pressures start mounting, knowing what internal capabilities really assist new ventures to build sustainable performance has become a major issue of concern to both researchers and practitioners. It is under this changing environment that the current research aims at examining how some strategic and operational competencies foster responsible growth (Zhang, Le et al. 2023).

Entrepreneurial orientation of a firm has a pioneering role in the manner in which it reacts to uncertainty and new opportunities. Those start-ups who are open to experimentation, pro-active behaviour and risk-taking which is calculated tend to be more flexible as markets change or some new customer demands emerge. Such orientation does not only influence the high-level strategic decisions, but also the daily decisions that provide the speed and the self-confidence of a firm (Hidayati, Siti Astuti et al. 2025). Due to the constant uncertainty of start-ups, entrepreneurial thinking is usually one of the factors that distinguish stagnant entrepreneurships and those that recognize new opportunities to grow. Nevertheless, entrepreneurial orientation does not necessarily prove successful at the market, but should be accompanied by the possibility to communicate with the customers and position the offerings in a meaningful manner (Vrontis, Chaudhuri et al. 2022).

This is why the digital marketing capability has been a growing competency among young firms. As most of the customer interaction is carried out online, start-ups are relying on digital tools to develop visibility, insights and relationship-building which will go beyond the one-time transaction. An effective online marketing competency enables companies to adapt their communication models in a short period of time, react to consumer tastes and develop interaction in an interactive platform (Hanaysha and Al-Shaikh 2024). This is particularly important in start-ups that do not have the financial capacity to conduct a wide marketing drive or massive promotion. Through strategic employment of the digital channels, such firms will be able to develop credibility, enhance the customer engagement, and create the feeling of connection that will facilitate long-run performance. The digital communication quality is often a defining factor of the degree in which the customers engage with the brand (Anjum, Idrees et al. 2025).

Accessibility to financial resources is an added necessary aspect to this process since the success or failure of start-ups to raise funds directly impacts the effectiveness of the execution of the idea. Due to inadequate financial resources even in the case where an entrepreneurial mindset of the venture and a developed digital presence are in place, progress may be slowed down.

Availability of financial resources helps the firms to invest in new technologies that are necessary, increase their outreach efforts, and apply sustainability-oriented operations that are not likely to provide immediate payoffs (Mughal, Riaz et al. 2023). Most of the practices that are related to responsible performance, including implementing environmentally friendly processes, enhancing the digital infrastructure, or maintaining customer engagement programs need financial stability. This stability is usually difficult to achieve by young firms and therefore financial accessibility is a determining factor of whether a start-up will support its long-term ambitions (Ahmad, Sohail et al. 2021).

Though the three factors, which are entrepreneurial orientation, digital marketing capability, and financial resource accessibility, have been examined, there is still little to learn about their concerted effort in creating sustainable performance in the start-up setting. Most of the available studies have focused on these variables individually, which has filled in a gap in the literature concerning the interactions of these variables and the mechanism by which they are related to sustainability outcomes. Customer engagement will probably play this absent role since customers who feel part of a company will be more willing to give feedback, experience, and promote the brand in a way that will enhance organizational resilience. However, the limited amount of literature has examined whether customer engagement is the channel where strategic and financial capabilities are converted to sustainability. This is a weakness that limits the capacity of scholars and practitioners in getting a comprehensive understanding of the dynamics that fuel responsible development of emerging ventures.

To fill this gap, the current research seeks to discuss how internal capabilities contribute to sustainable performance with references to customer engagement. The research question is that entrepreneurial orientation, digital marketing competency, and the availability of financial resources help to achieve customer engagement and determine that the customer engagement can affect long-term sustainability results. The goal is to provide a more synthesized perspective of the process through which start-ups transform their strategic plans and resource-based advantages into meaningful and responsible performance. The analysis of these relationships combined with each other offers an insight to the study that can guide founders, investors, policymakers, and contribute to organizations that aim to promote sustainable entrepreneurial development.

2.0 Literature Review

Entrepreneurial orientation (EO) is an established topic of abundant research on innovative processes in firms and their sustainability in the long term. The concept of EO is framed in the context of small and medium enterprises (SMEs), particularly start-ups, where three behaviours, including proactiveness, risk-taking, and innovativeness, allow firms to pursue new opportunities, experiment, and respond to changes in the market (Wales, Covin, and Monsen, 2021). Empirical research indicates that this kind of orientation does not only favour the financial performance but also improves the ability of firms to attain sustainable objectives when coupled with responsible business practices. To provide an example, in disruptive settings, entrepreneurial actions support flexibility, whereby start-ups can redesign their approaches to cleaner products or value propositions that are socially-minded.

The digital marketing capability (DMC) as the capacity to employ and capitalize on digital tools, data analysis, and online platforms is also important in maintaining firm performance. Recent studies suggest that the impact of digital innovation in marketing is highly positive and tends to manifest itself through the marketing ability of a firm (Jung and Shegai, 2023). Strong digital capabilities in SMEs does not simply mean establishing a social media campaign or e-commerce; it is the ability to interpret data related to customers and create insights and turn them into a specific interest. Research indicates that digital capabilities can be very instrumental in increasing the performance of entrepreneurs as firms are able to feel and take advantage of market opportunities (Kim and Jin, 2024). Furthermore, systematic reviews state that effective digital transformation in SMEs does not happen only when these companies have adopted the technology, but also when their strategies are aligned with technology, countries engage in continuous learning, and invest in organizational competence (Gonzalez-Varona, Lopez-Paredes, Poza and Acebes, 2024; Information Systems and e-Business Management, 2024).

Another strategic strength dimension of a firm, such as financial resource accessibility is a key limitation of the entrepreneurial firms. The studies conducted in SMEs reveal that the availability of external finance such as venture capital, grants and credit is closely linked with the capability of firms in investing in capabilities and sustainability practices. Financial resources in the emerging markets would allow start-ups to test the eco-innovations, digital infrastructures, and customer engagement programs (Nason and Patel, 2021). Additionally, the resource-based perspective is based on research highlighting that financial slack resources or resource supply means that a firm is able to be more aggressive in adopting sustainability-friendly strategies without compromising short-term survival (Korosteleva and Mickiewicz, 2021).

Customer engagement comes out in the literature as a complex construct - constituting emotional, behavioural and cognitive- constructs-that mediates the relationship between internal capabilities and performance outcomes. Interested customers are likely to engage in value-co-creation, recommend brands, and provide feedback, thus not only allowing the maintenance of revenue but also the proliferation of sustainable practices (Kumar, Sharma, and Ranjan, 2022). In the digital field, the participation is especially acute: companies that introduce interactivity and personal communication will be able to enhance the level of participation and transform it into loyalty, recommendations, and joint innovation.

Sustainable performance is in itself becoming more and more a composite output combining financial returns with environmental accountability and social value. The research on SMEs has revealed that green marketing orientation alongside innovation capacity can be used to create sustainable business performance (Khan, Sheikh, and Zainab, 2024). The other empirical studies also point out the role of entrepreneurial and digital capabilities in relation to stakeholder engagement in creating a long-term environmental and social footprint of a firm (Al Barwari, Ali, and Mousa, 2025).

Notably, there is increasingly growing evidence on the mediating nature of customer engagement. As an example, e-commerce marketing capabilities are reported to improve the strategic performance of firms due to involvement particularly where there is trust (Youseaf and

Palazzo, 2025). The e-commerce marketing skills of the tourism firms forecasted performance through its customer engagement (Zhao and Zhang, 2023). This kind of mediation implies that the influence of entrepreneurial orientation, digital capability, and financial access on sustainable results can work in part via the relational process of engagement.

However, there are still gaps in existing literature. Though research reports the personal impact of entrepreneurial orientation, digital marketing ability, and financial accessibility on performance or sustainability, there are comparatively less studies that consider all of them and their influence on start-ups. Furthermore, the mediating mechanism of dynamic interplay of these resources with customer through customer engagement has not been sufficiently covered especially in a new venture. This is a gap that restricts the formulation of integrated theory and applied recommendations to entrepreneurs with intentions to establish capacity to sustainably grow.

3.0 Methodology

The research design of this study is the quantitative research design because it aims to determine the relationship between entrepreneurial orientation, digital marketing capability, and accessibility of financial resources and sustainable performance due to customer engagement. The target group will include founders and managers of start-ups that are active in Lahore, Pakistan. Lahore was chosen because it is one of the key centers of entrepreneurial activity, the number of innovative small companies in the technological, services, and retail businesses is increasing. It is possible to analyze dynamic capabilities using the selection of start-ups since such organizations are more likely to be in dynamic environments and mobilizing their resources, engaging with customers, and focusing on sustainability initiatives to survive and expand.

The survey used was structured and aimed at gathering data on all the constructs to be used in the study. The questionnaire consisted of validated scales developed in the previous studies and were modified to the situation in Pakistani start-ups. The items used to measure entrepreneurial orientation included innovativeness, proactiveness, and risk-taking, and digital marketing capability was measured using items associated with the ability of the firm to utilize digital tools to engage customers, market sensing, and content personalization. Measures of the availability of financial resources were based on factors indicating availability of external finance, internal finance and ability to invest in sustainability programs. The operationalization of customer engagement involved behavioural, emotional, cognitive dimensions and sustainable performance involved economic, social, and environmental as reported by the respondents.

The questionnaire was sent via the internet and personal contacts within the incubators of the start-ups, networks of entrepreneurs and business associations Lahore. Anonymity and confidentiality were guaranteed to the respondents to facilitate correct and honest responses. In all, 300 questionnaires were sent out and the data screened accordingly on the completeness and outliers and various responses that did not add up, so that 262 useful responses were left to be analyzed. This is regarded to be an adequate sample size that can be used to model structural equation since the adequate sample size in terms of number of observations compared to the number of estimated parameters will give enough statistical power and confidence in estimating

the model.

In order to test the data, the structural equation modeling (SEM) by partial least squares (PLS) was used. SEM enables the evaluation of numerous relationships among independent, mediating and dependent variables simultaneously, thus suitable in testing the direct and indirect effects. The evaluation of the measurement models consisted of tests of reliability, convergent and discriminant validity of all the constructs. After reasonable measurement characteristics, the structural model was also tested to test the hypothesized paths and also to identify the presence or absence of customer engagement in mediating the relationships between entrepreneurial orientation, digital marketing capability, financial resource accessibility, and sustainable performance. The significance of the direct and indirect effects was tested by bootstrapping methods.

The methodology is used to make sure that the design, measurement, and analysis of the study are consistent with its goals to reveal the mechanisms concerning the ability to connect strategic capabilities and financial resources with sustainable performance. The emphasis on startups in Lahore enables the results to capture the realities of entrepreneurial enterprises in the dynamism of the emerging-market setting, whereas the application of SEM gives strong viability of both the direct and mediating relationships.

4.0 Findings and Results

4.1 Measurement Model

Table 4.1 has conducted a reliability analysis and has shown that all the constructs that are used in the study have excellent internal consistency and convergent validity. All the Cronbach Alpha values of financial resource accessibility (0.885), customer engagement (0.800), digital marketing capability (0.823), entrepreneurial orientation (0.849), and sustainable performance (0.701) are greater than 0.70 and this proves that the measurement items are always representative of their respective latent variables. Likewise, rho A, 0.701 to 0.896 and composite reliability, 0.781 to 0.910 also provide additional evidence of the stability and reliability of the constructs. The values of the Average Variance Extracted (AVE), which are greater than 0.50, suggest that each of the constructs contributes a significant amount of the variance in its indicators, which is evidence of convergent validation.

Table 4.1 Reliability Analysis

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Financial Resource Accessibility	0.885233	0.895598	0.909734	0.561353
Customer Engagement	0.800387	0.813626	0.849102	0.546491
Digital Marketing Capability	0.822641	0.837406	0.869928	0.505931
Entrepreneurial Orientation	0.848526	0.871528	0.885758	0.534346
Sustainable Performance	0.701155	0.701249	0.780946	0.502528

Table 4.2 validity analysis based on Heterotrait-Monotrait (HTMT)ratio shows that all constructs have sufficient discriminant validity. All of the HTMT values (the ratio between between-construct and within-construct correlations) are lower than the conservative estimate of 0.85 and thus indicates that every construct is empirically differentiated. To illustrate, the largest value of HTMT is 0.634 between financial resource accessibility and customer engagement, the value is moderate but has enough differentiation. Other relations, including entrepreneurial orientation and access to financial resources (0.272) and sustainable performance and access to financial resources (0.198) have lower correlations, which again proves the discriminant validity. All in all, these findings indicate that constructs used in the research assess distinct concepts and can be incorporated in the structural model analysis.

Table 4.2 Validity Analysis (HTMT)

	Financial		Digital		
	Resource	Customer	Marketing	Entrepreneurial	Sustainable
	Accessibility	Engagement	Capability	Orientation	Performance
Financial Resource Accessibility					
Customer Engagement	0.633449				
Digital Marketing					
Capability	0.436689	0.425791			
Entrepreneurial					
Orientation	0.272372	0.347582	0.605996		
Sustainable Performance	0.198162	0.487546	0.34869	0.331967	

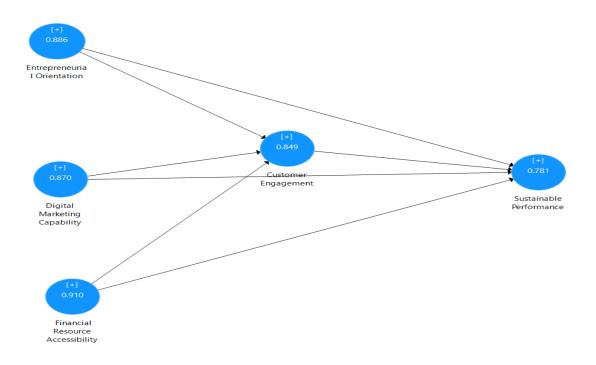


Figure 4.1 Measurement Model

4.2 Structural Equational Model

The study findings indicate that all the hypothesized relationships are upheld, which demonstrates that there are significant relationships amongst the variables. The ease of access to financial resources has a positive impact on customer engagement and sustainable performance, and it is possible to assume that the more start-ups access financial resources, the more they can engage customers in relationships and invest in the activities that are oriented towards sustainability. Customer engagement is also a positive influence on sustainable performance which emphasizes it as one of the mechanisms in which the capabilities of start-ups are transformed into long-term sustainable results.

The idea of digital marketing, in its turn, strengthens the idea of customer interactions and encourages sustainable performance, which means that the adequate use of the digital tools can enhance the customer interactions and the sustainability efforts. Entrepreneurial orientation does not only positively affect customer engagement and sustainable performance, but such risk-taking, proactive, and innovative activities of start-ups enable customer engagement and contribute to meeting sustainability goals. In totality, these findings imply that all of the previously mentioned factors are useful to sustainable performance, and customer engagement is a crucial component of their relationship that guarantees the transfer of the effect of these resources to long-term, positive outcomes of start-up businesses.

Table 4.3 Direct Effect (SEM Model)

	Original		Standard		
	Sample	Sample	Deviation	T Statistics	
	(O)	Mean (M)	(STDEV)	(O/STDEV)	P Values
Financial Resource Accessibility ->					
Customer Engagement	0.536362	0.539255	0.031777	16.87914	0
Financial Resource Accessibility ->					
Sustainable Performance	0.227301	0.233386	0.044521	2.859317	0.004423
Customer Engagement -> Sustainable					
Performance	0.3595	0.358491	0.044406	8.095753	0
Digital Marketing Capability ->					
Customer Engagement	0.109046	0.107437	0.03486	3.128105	0.001862
Digital Marketing Capability ->					
Sustainable Performance	0.119436	0.127293	0.044303	2.69589	0.007257
Entrepreneurial Orientation ->					
Customer Engagement	0.113488	0.116628	0.033997	3.338203	0.000906
Entrepreneurial Orientation ->					
Sustainable Performance	0.119885	0.118588	0.042366	2.829745	0.004846

The mediation analysis shows that the relationships between independent variables and sustainable performance are mediated by customer engagement. In particular, customer engagement can be thought of as an avenue where the availability of financial resources has a positive impact on sustainability because the more start-ups have access to financial resources, the better the results of sustained operations can be achieved, as it helps them to engage more with their customers. Equally, digital marketing capacity plays an indirect role in sustainable performance in terms of customer engagement, which argues that proper utilization of digital tools

enhances customer participation, which also facilitates sustainability efforts. Entrepreneurial orientation also shows a strong indirect impact of sustainable performance through customer engagement, which suggests that innovative, proactive, and risk-taking behaviours facilitate better sustainability results through their stronger engagement with customers. Altogether, these results prove that the role of customer engagement is critical, as a mediator between the strategic capacity and resources of start-ups and better sustainable performance.

Table 4.4 Mediation Analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Financial Resource Accessibility -> Customer Engagement -> Sustainable Performance	0.192822	0.19305	0.024749	7.791075	0
Digital Marketing Capability -> Customer Engagement -> Sustainable Performance	0.039202	0.038643	0.013771	2.846677	0.004599
Entrepreneurial Orientation -> Customer Engagement -> Sustainable Performance	0.040799	0.042034	0.013823	2.95147	0.003311

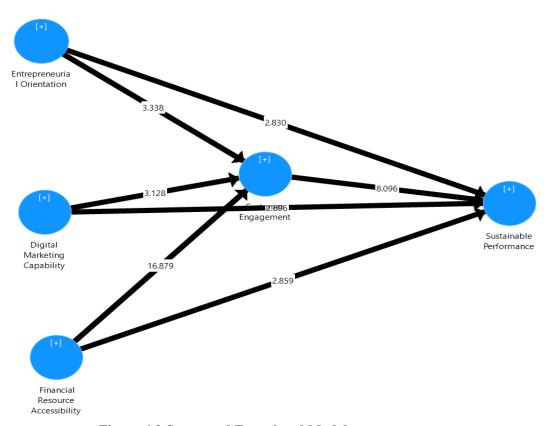


Figure 4.2 Structural Equational Model.

5.0 Discussion and Conclusion

The study findings are very strong testimonies to the theoretical and the existing litrature. The article proves in an empirical way that three variables of entrepreneurial orientation, digital marketing ability, and the availability of financial resources are significant in the sustainable performance and customer engagement is a significant mediating variable. The entrepreneurial culture, investments in digital marketing capabilities, and acquisition of financial resources are essential strategies to the start- ups that are keen on achieving long term economic, social, and environmental goals. Also, the potential of creating strong customer relationship will ensure that such resources and capabilities are translated into tangible sustainability outcome. Policy makers, incubators and entrepreneurship support programs may use these insights to develop interventions that will enhance start up capacity to grow sustainably without deteriorating their relationship with the stake holders. General, the outcomes indicate that strategic orientation, technological capability, availability of resources and the mediator, customer engagement, forms a good channel of achieving sustainable performance in the new ventures.

Muhammad Naeem Anjum: Problem Identification and Theoretical Framework

Hajira Tahir: Data Analysis, Supervision and Drafting

Fatima Mushtaq: Methodology and Revision

Conflict of Interests/Disclosures

The authors declared no potential conflicts of interest in this article's research, authorship, and publication.

References

Ahmad, A., Sohail, A., & Hussain, A. (2021). Emergence of financial technology in Islamic banking industry and its influence on bank performance in COVID-19 scenario: A case of developing economy. *Gomal University Journal of Research*, 37(1), 97–109.

Al Barwari, A., Ali, M., & Mousa, S. (2025). How entrepreneurial and digital capabilities drive sustainable performance in SMEs: The moderating role of stakeholder engagement. *Journal of Cleaner Production*, 460, 142120.

Al Koliby, I. S., Mehat, N. A. B., Al-Swidi, A. K., & Al-Hakimi, M. A. (2024). Unveiling the linkages between entrepreneurial culture, innovation capability, digital marketing capability, and sustainable competitive performance of manufacturing SMEs: Evidence from emerging countries. *The Bottom Line*, 37(4), 473–500.

Anjum, M. N., Idrees, F., Syed, N. A., & Sohail, A. (2025). Entrepreneurial orientation and digital marketing adoption as enablers of sustainable business performance: Mediating role of market responsiveness in manufacturing firms. *ProScholar Insights*, *4*(2), 206–216.

Centobelli, P., Cerchione, R., & Singh, R. (2020). Environmental sustainability and business performance: The critical role of stakeholder engagement. *Business Strategy and the Environment*, 29(8), 3343–3357.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2021). Digital marketing capabilities and customer engagement: Empirical evidence from emerging markets. *Journal of Strategic Marketing*, 29(7), 568–587.

Eggers, F., Hatak, I., Kraus, S., & Niemand, T. (2020). Entrepreneurial orientation and performance in times of crisis: The role of digitalization. *Journal of Business Research*, *116*, 207–213.

- Elgarhy, S. D., & Abou-Shouk, M. (2023). Effects of entrepreneurial orientation, marketing, and innovation capabilities on market performance: The mediating effect of sustainable competitive advantage. *International Journal of Contemporary Hospitality Management*, 35(6), 1986–2004.
- Gonzalez-Varona, J. L., López-Paredes, A., Poza, J., & Acebes, F. (2024). Digital transformation in SMEs: A systematic literature review and future research agenda. *Information Systems and e-Business Management, 22*(1), 45–67.
- Hanaysha, J. R., & Al-Shaikh, M. E. (2024). Impact of entrepreneurial orientation, marketing capability, and market orientation on business sustainability and corporate reputation. *Discover Sustainability*, 5(1), 273.
- Hidayati, H. A., Siti Astuti, E., Kusumawati, A., & Iqbal, M. (2025). The nexus between entrepreneurial and market orientation on digital marketing capabilities and marketing performance of SMEs in emerging markets. *Cogent Business & Management*, 12(1), 2526150.
- Jung, H., & Shegai, S. (2023). Digital innovation, marketing capabilities, and competitive performance: Evidence from technology-driven firms. *Journal of Business Research*, 160, 113753.
- Khan, M., Sheikh, A., & Zainab, S. (2024). Green marketing orientation and sustainable business performance in SMEs: The moderating role of innovation capability. *Journal of Sustainable Business & Management*, 6(2), 112–130.
- Kim, J., & Jin, B. (2024). Digital capability and entrepreneurial performance: The mediating role of opportunity recognition. *International Journal of Entrepreneurial Behavior & Research*, 30(1), 1–20.
- Korosteleva, J., & Mickiewicz, T. (2021). Financial constraints and firm growth: Evidence from transition economies. *Small Business Economics*, 56(4), 1535–1555.
- Kumar, V., Sharma, A., & Ranjan, J. (2022). Customer engagement and sustainable value co-creation: A roadmap for competitive advantage. *Industrial Marketing Management*, 105, 50–63.
- Luu, T. T. (2022). Customer engagement and sustainable performance in entrepreneurial firms. *Journal of Cleaner Production*, 352, 131642.
- Mikalef, P., Gupta, M., Pappas, I. O., & Niehaves, B. (2020). Big data analytics capability: A systematic review and future research directions. *Information Systems and e-Business Management*, 18, 547–578.
- Mughal, Y. H., Riaz, A., & Sohail, A. (2023). Nexus among stakeholder pressure, access to green finance and green investments: A mediation moderation model. *Gomal University Journal of Research*, 39(4), 420–432.
- Nason, R. S., & Patel, P. C. (2021). Resourcefulness in small firms: The role of financial slack. *Journal of Management*, 47(7), 1884–1910.
- Vrontis, D., Chaudhuri, R., & Chatterjee, S. (2022). Adoption of digital technologies by SMEs for sustainability and value creation: Moderating role of entrepreneurial orientation. *Sustainability*, 14(13), 7949.
- Wales, W. J., Covin, J. G., & Monsen, E. (2021). Entrepreneurial orientation: Continuity and change of a research domain. *Entrepreneurship Theory and Practice*, 45(4), 8–34.
- Yaqub, M. Z., Yaqub, R. M. S., Alsabban, A., Baig, F. J., & Bajaba, S. (2024). Market-orientation, entrepreneurial-orientation and SMEs' performance: The mediating

roles of marketing capabilities and competitive strategies. *Journal of Organizational Effectiveness: People and Performance.*

Yousaf, A., & Palazzo, M. (2025). How e-commerce marketing capabilities enhance strategic performance: The mediating role of customer engagement and trust. *Journal of Retailing and Consumer Services*, 76, 103540.

Zhang, X., Le, Y., Meng, Q., & Teng, X. (2023). Green entrepreneurial orientation and financial performance in Chinese firms: The role of stakeholder engagement and green absorptive capacity. *Corporate Social Responsibility and Environmental Management*, 30(3), 1082–1095.

Zhao, H., & Zhang, X. (2023). Customer engagement as a mediator between digital capability and firm performance in tourism SMEs. *Tourism Management*, *98*, 104765.