MIX: Jurnal Ilmiah Manajemen

Management Scientific Journal
ISSN (Online): 2460-5328, ISSN (Print): 2088-1231
https://publikasi.mercubuana.ac.id/index.php/jurnal_Mix

From Productivity To Sustainable Competitive Advantage: Unpacking The Mediation Of Financial Performance And Business Diversification

Ni Putu Santi Suryantini[1*]; I Wayan Edi Arsawan[2]; Viktor Koval[3]; Ni Ketut Purnawati[4]; Ni Wayan Emmy Rosiana Dewi[5]

[1] santisuryantini@unud.ac.id, Universitas Udayana, Indonesia
[2] wayanediarsawan@pnb.ac.id, Politeknik Negeri Bali, Indonesia
[3] victor-koval@ukr.net, Izmail State University of Humanities, Ukraine
[4] m_purnawati@unud.ac.id, Universitas Udayana, Indonesia
[5] emmyrosiana@unud.ac.id, Universitas Udayana, Indonesia
**) Corresponding Author*

ABSTRACT

Objectives: *This research aimed to examine the full sequential mechanism of sustainable competitive advantage (SCA). Specifically, it examined fintech adoption and organizational creativity as antecedents of productivity, and evaluated financial performance and business diversification as mediators bridging productivity and SCA.*
Methodology: *A three-wave procedure including 420 respondents from 210 SMEs was conducted and analyzed using Smart PLS.*
Finding: *The results showed that productivity was an important driver of financial performance, business diversification, and SCA. Additionally, financial performance and business diversification mediated the relationship between productivity and SCA. This study provided a basis for understanding the relevance of technology adoption and creativity to improve performance and competitiveness in SMEs. Furthermore, it provided insight into the importance of collaboration at the individual and management levels as a strong foundation for building competitiveness.*
Conclusion: *This study shows that there is a significant direct relationship between financial technology and organizational creativity on organizational productivity, organizational productivity on financial performance, business diversification, and SCA. This study also shows the role of financial performance and business diversification as mediators.*

Keywords: *Fintech; Organizational Creativity; Financial Performance; Business Diversification; Sustainable Competitive Advantage.*

Submitted: 22-06-2026 Revised: 09-09-2026 Accepted:16-10-2026

Article Doi:
http://dx.doi.org/10.22441/jurnal_mix.2026.v16i3.007

p-ISSN: 2088-1231
e-ISSN: 2460-5328

INTRODUCTION

Considering the rapidly changing business landscape, internal challenges such as resource constraints, access to capital, adaptation to technological developments, and productivity are becoming key determinants of operational efficiency, growth, and competitiveness (Appolloni et al., 2022; Arsawan, et al., 2022). The literature indicates that productivity, as a driver of business performance and a key to achieving competitive advantage is becoming increasingly popular and a profitable topic across various industries specifically in SMEs (Ballestar et al., 2020; Suryantini et al., 2023). Increasing productivity provides numerous benefits, including positive impacts on innovation, performance, and intellectual capital (Buallay et al., 2021; Falk et al., 2020). Due to these various benefits and to fulfill customer needs, all SMEs are developing innovation-based businesses to outperform the competition by offering unique products and services (Malik et al., 2023; X. Zhang et al., 2023).

In correlation to the changing business landscape and dynamic customer demands, the SME sector is growing through increased productivity and compliance with market demands (Allal-Chérif et al., 2023). Adopting technology, increasing creativity and productivity, as well as offering superior performance value, are fundamental strategies for enhancing sustainable competitive advantage (SCA) as the key to business success (Lopes de Sousa Jabbour et al., 2025; Roy et al., 2025; Tran Huy, 2025). Although research has focused on assessing business performance in SMEs (Ahinful et al., 2023; Aisjah et al., 2023), studies on SCA remain limited (Arsawan et al., 2026; León-Gómez et al., 2025) presents an opportunity for further investigation.

Empirical evidence has further identified drivers of SCA, often including innovation, technology, and productivity (Khandekar & Sharma, 2005; Mady et al., 2022; X. Zhang et al., 2023). Furthermore, business performance is a crucial factor influencing SCA (Ahmad et al., 2022; Arsawan et al., 2022) however, research specifically examining the relationship between financial performance and SCA remains limited. In addition, organizational productivity which is the basis for business diversification to drive SCA also remains underexplored (Timothy, 2022). Further, considering the specific impact of fintech adoption and organizational creativity on SME productivity requires stronger empirical evidence (Siddik et al., 2023; Waqar et al., 2025), study on how the interlinkage among these constructs have received less attention (Ur Rehman et al., 2021). Consequently, there is a requirement to examine the role of mediation; thus, the proposed model could offer comprehensive insights into sustainable competitive advantage.

There are significant theoretical gaps in integrating frameworks to understand the formation of SCA (León-Gómez et al., 2025; Obeng et al., 2025). The resource-based view (Barney, 1991) postulates that to strengthen competitiveness, organizations should optimize rare, inimitable, and non-substitutable resources (Hossain et al., 2021). Although this model extends the RBV by examining how organizational resources (including fintech and creativity), the dynamic capability perspective (Teece et al., 2009) emphasizes an organization's capability to sense and respond to business developments by exploiting evolving opportunities and making timely strategic decisions. The RBV is rarely integrated with dynamic capability to examine SCA specifically in volatile environments (Lin & Wu, 2014).

Within this integrated framework, fintech adoption and organizational creativity act as strategic, inimitable resources (RBV). These resources are then reconfigured into operational capabilities, specifically organizational productivity. Finally, relying on dynamic capability

p-ISSN: 2088-1231
e-ISSN: 2460-5328

theory, financial performance and business diversification serve as the vital transformation mechanisms that convert operational capabilities into Sustainable Competitive Advantage (SCA) in volatile environments. This study addresses the theoretical gap by combining the frameworks to provide a comprehensive understanding of the driving factors of SCA in the SME sector. Therefore, the analysis attempts to answer three research questions:

RQ1. Do financial technology and creativity drive organizational productivity in SMEs?

RQ2. Is organizational productivity significant for financial performance, business diversification, and SCA?

RQ3. Do financial performance and business diversification mediate the relationship between productivity and SCA?

Driven by the knowledge gap, this study was conducted on the SME sector with two considerations. First, SMEs serve as the backbone of the Indonesian economy with a total of 64.5 million units, and increasing financial technology and creativity drive organizational growth potential (Aisjah et al., 2023; Ratnawati et al., 2024). Second, there is a need to adopt technological dynamics to compete with competitors, reduce resistance of information technology usage, and strategic planning (Nugraha et al., 2022; Rumanti et al., 2023). Conducting research is important to confirm and expand the theoretical understanding of the concept, providing critical information to managers that enables them to adapt and manage SMEs for sustainable competitiveness. Driven by the knowledge gap, this study was conducted on the craft SME sector in Bali, which currently faces specific empirical issues such as significant shifts in post-pandemic market demand, intense pressures of digitalization in marketing and payment systems, and stagnation in productivity. Craft MSMEs, particularly in woodcraft, metalwork, and bamboo sectors, are struggling to integrate technology and develop product diversification to maintain their competitiveness.

LITERATURE REVIEW

SCA in Small and Medium Enterprises

The foundation for assessing SCA was rooted in the RBV (Barney, 1991), which was later expanded to include dynamic capability (Teece et al., 2009). These two theories asserted that performance differences between organizations were due to the configuration of the unique, valuable, inimitable, and non-substitutable resources to build competitive advantage (Aisjah et al., 2023). Organizations' ability to respond to the business environment and identify unique characteristics and values not possessed by competitors provided a solid foundation for strategic decisions on how SMEs built the competitive advantage (León-Gómez et al., 2025; Obeng et al., 2025).

Certain research used the RBV (Hossain et al., 2021) and dynamic capability (Kazmi and Ahmed, 2021), but the studies examined each separately or in conjunction with other frameworks, showing a lack of integration between the two. The ability to manage unique resources within rapidly evolving businesses can enhance organizational agility by integrating technology and creativity to boost business performance and competitiveness. Specifically, developing capabilities and resources is necessary to implement business diversification and drive sustainable competitiveness in the SME sector (Iborra et al., 2020). This study combined RBV and dynamic capability to investigate how SMEs leveraged fintech and creativity as productivity drivers to influence financial performance and business diversification toward SCA.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Financial Technology Toward Productivity

Fintech services such as digital payment systems reduced transaction costs and the time required for cash payment processing (Setiawan et al., 2021). This saved resources including time and labor motivated other productive activities by improving operational efficiency and increasing productivity (Abbasi et al., 2021). Furthermore, SMEs using fintech have broader market access, engaging customers beyond the geographic region (Pizzi et al., 2021). This market expansion directly increased sales volume and revenue which served as the key components of productivity (Bhat & Abdelwahed, 2025). In the context of this study, financial technology is not merely viewed as a functional capability but is fundamentally conceptualized through its continuous usage, behavioral integration, and advocacy by SME managers. This active and continuous utilization is what enables real-time and accurate transaction recording, eventually allowing managers to make more informed and strategic decisions for increasing productivity (Ratnawati et al., 2024). Based on this discussion, the following hypothesis was proposed:

H1. Financial technology had a significant effect on organizational productivity.

Organizational Creativity Toward Productivity

Scholars (Arsawan et al., 2022; Tran Huy, 2025) defined creativity as the collective ability of organizations to generate new, original, and useful ideas that could be applied in work or market contexts, driving innovation (Zhang, 2025). This required the support of all systems, cultures, and processes to motivate and use creative thinking (Maulidi, 2025; Perotti et al., 2025). Creativity enabled the discovery of efficient and cost-effective methods (Le, 2024), thereby optimizing resource usage, reducing waste, and increasing output (Ngoc Huynh et al., 2024). Furthermore, creativity was considered a source of new and original ideas that served as raw material for product, service, and business model innovation (Audretsch & Belitski, 2022). This enabled organizations to offer superior products/services, attract customers, and maintain relevance in volatile markets (Lai et al., 2022). Creativity eventually improved productivity and business performance, respectively. Based on this discussion, the following hypothesis was proposed:

H2. Organizational creativity was significant to organizational productivity.

Organizational Productivity, Financial Performance, Business Diversification, and SCA

Increased productivity such as increased production capacity motivated organizations to produce or serve more customers in the same time period (Ko & Choi, 2019). This often implied less wasted material, energy, and labor time, which directly reduced costs per unit of production (Buallay et al., 2021). By efficiently producing higher volumes, organizations achieved economies of scale, lower average costs, and increased price competitiveness (Ballestar et al., 2020). Increased efficiency in development and production processes further enabled SMEs to launch products faster than competitors, secure market share, and increase sales volume.

Organizational productivity further served as the foundation for achieving SCA (Ballestar et al., 2020). Achieving high levels of productivity directly established two main pathways to competitive advantage (Arsawan et al., 2022). First, cost leadership was achieved by producing more output with the same amount of input, reducing the cost per unit of a product or service, offering competitive prices, and optimizing unique, rare, difficult-to-imitate, and non-substitutable internal capabilities (Arsawan et al., 2026). Second, differentiation advantage evolved through the ability to perform similar activities more quickly, with a strong orientation toward quality and value, leading to products and services that consistently fulfill customer

p-ISSN: 2088-1231
e-ISSN: 2460-5328

satisfaction (Bodlaj et al., 2020). This capability created added value that was difficult for competitors to imitate and served as the foundation for building an SCA (Obeng et al., 2025).

High-productivity SMEs showed the ability to optimize inputs such as capital, human resources, or technology into outputs and outcomes (Achmad & Wiratmadja, 2025). This created cash flow stability, enabling managers to take calculated risks such as launching new products or entering different markets without threatening the sustainability of the core business (Bettiol et al., 2023; Che & Liebenberg, 2017). Accordingly, SMEs could diversify the businesses effectively and sustain growth to enter new markets, maintaining strong competitiveness in new industries (Suryantini et al., 2023; X. Zhang et al., 2023). Drawing from the preceding analysis, the following hypotheses are formulated:

H3. Organizational productivity was significant to financial performance.
H4. Organizational productivity was significant to SCA.
H5. Organizational productivity was significant to business diversification.

Financial Performance and SCA

Strong financial performance, such as high profitability and cost efficiency, enabled SMEs to invest in innovation, resource development, and differentiation strategies supporting long-term competitiveness (Ahinful et al., 2023; Yadegaridehkordi et al., 2023). Financial allocation to technological innovation, product development, and production efficiency led to unique assets that were difficult for competitors to imitate (Ratnawati et al., 2024). Furthermore, institutional strengthening, such as financial management and access to financing, strengthened this stage, increasing market adaptability (Shashi et al., 2019). From the RBV perspective, financial performance was perceived as a valuable resource that created SCA by enabling the allocation of funds to unique assets, such as technology or employee training (Ciza et al., 2025; Siddik et al., 2023). Empirical studies showed that SMEs with positive financial ratios were more adaptable to market changes, maintaining a superior position relative to competitors (Ahinful et al., 2023; Syrová & Špička, 2023). The following hypothesis was proposed based on the discussion:

H6. Financial performance was significant to SCA.

Business Diversification and SCA

Considering the changing trends and fluctuating demand, SMEs must be agile and flexible in responding to market changes and needs (Arsawan et al., 2022; Panda & Rath, 2021). This motivated business diversification as a crucial strategy, enabling SMEs to avoid complete dependence on a single business line (Bodlaj et al., 2020). Furthermore, a diversification strategy increased resilience by reducing risk and enhancing market adaptability (Dabić et al., 2021; Haider & Kayani, 2021). Through diversification, SMEs reduced dependence on a single source of income with weather market fluctuations by entering new segments and innovating products that were difficult to imitate (Ahmadi & Ershadi, 2021). This created unique value, strengthening sustainable competitiveness (León-Gómez et al., 2025; Obeng et al., 2025). Business diversification also trained SME managers to be more responsive, innovative, and adaptive (Madan et al., 2025; Roy et al., 2025). For example, the new product development process required absorptive capacity to adopt new technologies and knowledge, which was key to sustainable competitiveness in the digital age (Marrucci et al., 2022). Although the relationship between these two constructs had rarely been empirically tested (Bettiol et al., 2023), diversification enabled SMEs to leverage unique internal resources to expand markets, create barriers to entry for competitors, build resilience, and diversify the revenue base. This

p-ISSN: 2088-1231
e-ISSN: 2460-5328

allowed stronger bargaining position, which collectively contributed to sustainable competitiveness. Therefore, the following hypothesis was proposed.
H7. Business diversification was significant to SCA.

Mediating Role of Financial Performance

Increasing productivity implied serving more customers while reducing resource waste, thereby lowering unit costs (Buallay et al., 2021). This led to higher volumes, lower average costs, and increased price competitiveness (Ballestar et al., 2020; Falk & de Lemos, 2019). These improvements enabled SMEs to launch products faster than competitors, secure market share, and increase sales volume, eventually improving financial performance (Ballestar et al., 2020). Furthermore, SMEs could pursue innovation, resource development, and differentiation strategies that supported long-term competitiveness with strong financial performance (Ahinful et al., 2023; Yadegaridehkordi et al., 2023). Institutional strengthening, such as financial management and access to financing, strengthened this stage, increasing market adaptability (Shashi et al., 2019). Financial performance would also enhance productivity and improve SME competitiveness. This discussion suggested that organizations could improve financial performance by strengthening productivity to build SCA, enhancing sustainable competitiveness. Therefore, the following hypothesis was proposed.
H8. Financial performance mediated organizational productivity and SCA.

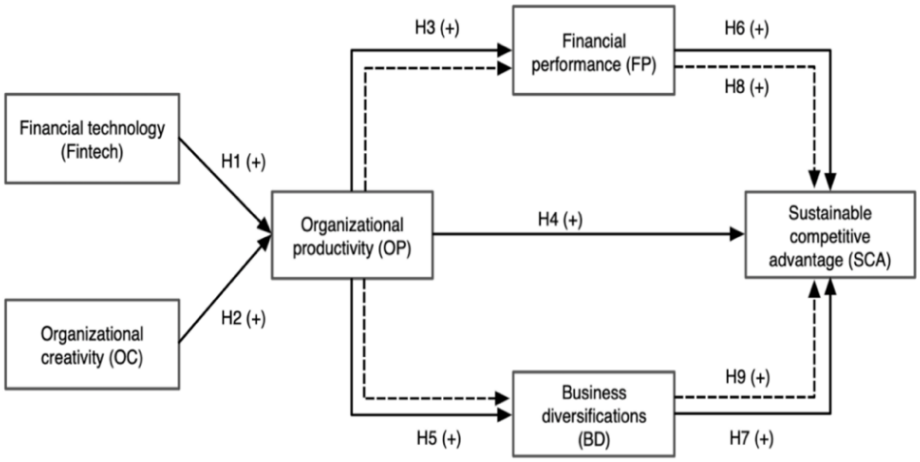
Mediating Role of Business Diversification

Organizational productivity showed organizations' ability to optimize potential and resources (Achmad & Wiratmadja, 2025), develop new products, and enter new markets without threatening the sustainability of the core business (Bettiol et al., 2023; Che & Liebenberg, 2017). Therefore, SMEs diversified in a measured manner and maintain growth, maintaining strong competitiveness when entering new industries (Suryantini et al., 2023; X. Zhang et al., 2023). Changing trends and fluctuations in demand required agility, flexibility, and resilience (Arsawan et al., 2022; Panda & Rath, 2021). Business diversification further allowed SMEs to open opportunities across varied business lines (Bodlaj et al., 2020). Scholars such as Dabić et al. (2021) and Haider & Kayani (2021) found that diversification elevated resilience and competitive advantage by reducing risk and increasing adaptability. This occurred because diversification enabled SMEs to navigate market fluctuations, innovate products (Ahmadi & Ershadi, 2021), and create unique value to strengthen the sustainable competitive position (León-Gómez et al., 2025; Obeng et al., 2025). In light of this, diversification allowed SMEs to exploit unique internal resources to build resilience and develop sustainable competitiveness (Bettiol et al., 2023). The following hypothesis was proposed based on this discussion.
H9. Business diversification mediated organizational productivity and SCA.

This study investigated the direct and mediating relationships between predictors of organizational productivity (fintech and creativity), financial performance, business diversification, and SCA. The conceptual framework was further presented in Figure 1.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Figure 1. Organizational productivity toward the SCA models



METHOD

Research Design

This study focused on SMEs, the backbone of the Indonesian economy, which continued to grow, made positive contributions to economic growth, created new jobs, and strengthened the creative industry (Ratnawati et al., 2024). To obtain the population and sample, the study used local government databases to identify the SMEs that became the subjects. The population consisted of 460 craft SMEs in Bali Province, classified into the woodcraft (95), metal (78), and bamboo (37) sectors. The sample frame was then selected using a simple random sampling method, a lottery method without replacement, meaning each member of the population had an equal chance of being sampled only once. The sample frame size was determined using the formula by Krejcie and Morgan (1970), leading to a total of 210 SMEs.

The respondents for this study were managers and assistant managers, considered ideal targets due to their insight into the strategic planning that leads to SCA. Data collection was conducted in three stages—as recommended by Rasheed et al. (2020)—at three-month intervals between August 2024 and April 2025. To minimize common method bias and capture the sequential transformation of capabilities, a three-wave design was employed: Stage 1 measured Fintech Adoption and Organizational Creativity; Stage 2 measured Organizational Productivity; and Stage 3 measured Financial Performance, Business Diversification, and SCA. Data collection methods included the use of email and Google Forms, as well as in-person visits preceded by email notifications regarding the agenda. The unit of analysis in this study is the organization (MSME). The respondents were managers and assistant managers. This study collected 420 responses from 210 SMEs, meaning two respondents were assessed per MSME. To conduct organizational-level analysis, the data from the two respondents within each MSME were aggregated and averaged to create a single composite score representing the organization.

Measurements

The theoretical constructs of the conceptual model were measured using a multi-item scale, and the questionnaire included items adopted from the available literature. For this purpose, all items were scored on a seven-point Likert-type response scale ranging from "strongly disagree" = 1 to "strongly agree" = 7, with the survey prepared in Indonesian. A pilot

p-ISSN: 2088-1231
e-ISSN: 2460-5328

test including 20 SME managers refined the questionnaire through minor wording adjustments. Financial technology was measured using three indicators adopted from Nugraha et al. (2022). These indicators operationalize financial technology through the perspective of user acceptance, continuous integration, and advocacy within SMEs, which are critical dimensions for capturing the actual impact of technology on organizational workflows. Organizational creativity was measured using four dimensions, namely individual creativity, team creativity, inter-organizational creativity, and knowledge creation (Rumanti et al., 2023). Organizational productivity was measured adopted from Timothy (2022). Financial performance was measured using five indicators adopted from Ciza et al. (2025). Business diversification was measured using three indicators adopted from Bettiol et al. (2023) and SCA was measured by seven indicators (Arsawan et al., 2022; Suryantini et al., 2023).

To evaluate the survey data, this research employed partial least squares structural equation modeling (PLS-SEM), a prominent variance-based technique in quantitative analysis (Guenther et al., 2023). Because PLS-SEM prioritizes maximizing the explained variance of endogenous constructs, it is highly effective for studies with a predictive focus (Hazen et al., 2015). In the context of Supply Chain Agility (SCA), this method has emerged as a standard procedure for evaluating predictive paths (Arsawan et al., 2022) particularly when dealing with multi-item scales and complex interaction effects (Alsmairat & AL-Shboul, 2023). Consequently, PLS-SEM was selected to test the hypotheses in this study due to its capacity to accommodate moderation, mediation, and multi-item variables. To guarantee analytical rigor and mitigate the possibility of misleading results, the evaluation followed a standard two-step approach involving the assessment of both measurement and structural models (Guenther et al., 2023). This procedural design not only facilitates the testing of direct and indirect effects but also effectively manages data that lack normal distribution (Agyabeng-Mensah et al., 2024). Ultimately, these characteristics make the PLS-SEM approach highly suitable for investigating SCA within small and medium-sized enterprises (SMEs).

RESULTS AND DISCUSSION

Results

Respondent Profile

This study included 420 respondents from three SME sectors, namely woodcraft (45.20%), metal (37.10%), and bamboo (17.70%). The analysis was dominated by males (53.80%), with a dominant age range of 41-50 years (46.33%) showing the acceleration of SMEs in viewing creativity and innovation as important drivers of performance and competitiveness. Table 1 further presented the information on the respondent profiles.

Table 1. Respondent Profile

Description	Classification	Frequency	Percentage
Type of business	Woodcraft	95	45,20
	Metal	78	37.10
	Bamboo	37	17.70
Gender	Male	226	53.80
	Female	194	46.19
Age	21-30	60	16.76
	31-40	184	23.53
	41-50	121	46.33
	51-60	55	13.38
Education	Diploma	54	12.85

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Description	Classification	Frequency	Percentage
	Bachelor's Degree (S1)	226	53.80
	Master's Degree (S2)	127	30.23
	Doctoral Degree (S3)	13	3.09

Outer Model Measurement

This study tested reliability through convergent validity analysis and discriminant validity through confirmatory factor analysis (CFA), then calculated composite reliability (CR) and average variance extracted (AVE). Following expert advice by Guenther et al. (2023), factor loadings were found to exceed 0.70. Factor loadings ranged from 0.711 to 0.926, meeting the reliability criteria. Furthermore, it calculated internal consistency by analyzing CR values above 0.70 (Hair Jr & Sarstedt, 2021). The range of CR is 0.877 to 0.975, meeting the internal consistency criteria. Finally, convergent validity was assessed by AVE values above 0.50 for each construct. Since the analysis results showed that AVE values ranged from 0.554 to 0.820, this criterion was met. Table 2 detailed the analysis results.

Table 2. Outer Loading

Constructs	Items	Factor loading	CA	CR	AVE
Fintech			0.890	0.932	0.820
	- Willing to continue using fintech services	0.903			
	- Use fintech services	0.926			
	- Recommend fintech services	0.886			
Organizational Creativity			0.973	0.975	0.554
Individual Creativity			0.941	0.951	0.707
	- Employee creativity evolves when given the opportunity	0.833			
	- Develop appropriate plans for new ideas	0.844			
	- Innovative new ideas among employee	0.859			
	- High curiosity among employee	0.876			
	- High technical expertise among employee	0.839			
	- Employee's creative solution to problems	0.851			
	- New method to problem-solving	0.843			
	- New ways to carry out work tasks	0.779			
Group Creativity			0.929	0.941	0.638
	- Produce innovative jobs and products	0.711			
	- The job requires employees to be creative	0.742			
	- Motivated to be creative within the organization	0.796			
	- Motivated to take risks within the company	0.810			
	- Organizations support creative processes	0.846			
	- Organizations discuss employee work ideas	0.831			
	- Information makes employees more creative	0.834			
	- Discuss new things about new ideas	0.840			
	- Mutual trust between the team members	0.770			
Inter-Organizational Environment			0.925	0.937	0.624
	- Organizations keep employee morale high	0.775			
	- Organizations do not ignore new ideas	0.772			
	- Organizations value the work	0.783			
	- Organizations accept failure from the hard work	0.799			
	- Organizations offer challenging jobs	0.771			

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Constructs	Items	Factor loading	CA	CR	AVE
	- The budget to carry out the work is still insufficient	0.810			
	- Organizations emphasize healthy competition	0.795			
	- Top management is willing to take risks	0.792			
	- Realistic organizational targets	0.809			
Knowledge Creation			0.896	0.923	0.707
	- Direct interaction with suppliers	0.781			
	- Direct interaction with customers	0.880			
	- Activities obtain new information	0.868			
	- Dialogue process with competitors	0.867			
	- Interaction with experts from outside	0.804			
Organizational Productivity			0.789	0.877	0.703
	- Number of full-time employees	0.802			
	- Total annual sales	0.849			
	- Average sales per full-time employee	0.864			
Financial Performance			0.860	0.899	0.640
	- Sales volume growth compared to direct competitor	0.815			
	- Profit growth compared to direct competitor	0.820			
	- Growth in cash flow generated compared to direct competitor	0.790			
	- Return on investment growth compared to direct competitor	0.788			
	- Market share growth compared to direct competitor	0.788			
Business Diversification			0.816	0.891	0.732
	- Offering new products in existing markets	0.863			
	- Offering existing products in new markets	0.894			
	- Offering new products in new markets	0.808			
SCA			0.922	0.937	0.680
	- Value of the product	0.796			
	- Service delivery system	0.813			
	- Growth and performance	0.831			
	- Increasing market share	0.842			
	- Individual-organizational innovation	0.846			
	- Rareness of the product	0.825			
	- Imperfectly non-imitable of the product	0.820			

Inner Model Measurement

The study applied the bootstrap method with 5,000 subsamples to assess the significance of indicators for each construct in four stages. First, the goodness-of-fit (GoF) was 0.593, showing a high model fit, and the proposed model was applied to the SME sector. Second, the standard residual root mean square (SRMR) test showed a good fit for the model, with an SRMR of 0.067 (below 0.08). The NFI was also 0.687, showing a good fit (Tenenhaus et al., 2005). Third, in the R^2 examination, it was asserted that fintech and creativity accounted for 53% of the organizational productivity variable. The R^2 for SCA was further explained by organizational productivity, financial performance, and business diversification, accounting for 50.7%. Finally, all Q^2s ranged from 0.046 to 0.144 and were positive, showing the moderate predictive power of the PLS model for the SCA construct (Hair et al., 2019).

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Common Method Bias

By using three key steps, this study process was evaluated to address potential common-method bias. Procedurally, we minimized respondent apprehension by guaranteeing strict anonymity and emphasizing the purely academic nature of the study. Participants were also informed that their candid perspectives were sought, as there were no correct or incorrect responses. Statistically, an ex-post evaluation utilizing Harman's single-factor test revealed that the primary factor explained merely 27% of the variance. Because this falls significantly below the threshold of concern (Podsakoff et al., 2003), it confirms that CMB did not distort the data, thereby reinforcing the overall empirical validity of the findings.

Hypothesis Testing

At this stage, the path coefficient (β) and t-statistic were evaluated to test the significance (Hair Jr et al., 2017). The relationship between fintech and organizational productivity (β = 0.215, t-statistic = 4.043, p < 0.000) was significant, supporting H1. Organizational creativity and productivity (β = 0.548, t-statistic = 10.680, p < 0.000) were significant, supporting H2. Furthermore, the relationship between organizational productivity and financial performance (β = 0.521, t statistics = 12.334, p < 0.000), SCA (β = 0.364, t statistics = 7.041, p < 0.000), and business diversification (β = 0.531, t statistics = 12.578, p < 0.000) was significant, supporting H3-H5. The relationship between fintech and SCA (β = 0.166, t statistic = 3.170, p < 0.002) was significant, providing support for H6, while business diversification had a significant effect on SCA (β = 0.310, t statistic = 5.510, p < 0.000), supporting H7. Tables 3 and 4 further presented the analysis results for each hypothesis.

Table 3. Hypothesis testing

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Remarks
Financial technology -> organizational productivity (H1)	0.215	0.210	0.053	4.043	0.000	Sig.
Organizational creativity -> organizational productivity (H1)	0.548	0.552	0.051	10.680	0.000	Sig.
Organizational productivity -> financial performance (H1)	0.521	0.523	0.042	12.334	0.000	Sig.
Organizational Productivity -> SCA (H1)	0.364	0.365	0.052	7.041	0.000	Sig.
Organizational Productivity -> business diversification (H1)	0.531	0.531	0.042	12.578	0.000	Sig.
Financial performance -> SCA (H1)	0.166	0.163	0.052	3.170	0.002	Sig.
Business diversification -> SCA (H1)	0.310	0.309	0.056	5.510	0.000	Sig.

Subsequently, two mediation mechanisms were tested in the analysis model. First, financial performance mediated the relationship between productivity and SCA (β=0.086, t statistic = 3.171, p<0.002), supporting H8. Second, business diversification mediated the relationship between productivity and SCA (β=0.165, t statistic = 4.702, p<0.002), providing support for H9. The analysis results were presented in Figure 2.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Table 4. Mediation Testing

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Remarks
Organizational productivity → financial performance → SCA (H8)	0.086	0.085	0.027	3.171	0.002	Mediation
Organizational Productivity → business diversification → SCA (H9)	0.165	0.165	0.035	4.702	0.000	Mediation

Discussion

This analysis models SCA in SMEs by integrating key drivers, including productivity, financial performance, and business diversification. A significant relationship between fintech and productivity (H1) shows that easy access to financing, operational efficiency, and digitalization saves time and effort as well as motivates other productive activities, increasing operational efficiency and productivity (Pizzi et al., 2021). By using fintech, SMEs have broader market potential, increasing sales volume and revenue, which are the key components of productivity (Abbasi et al., 2021; Bhat & Abdelwahed, 2025). Organizational creativity is significant for productivity (H2), as it enables the generation of new ideas that drive efficient method innovation and resource optimization, increasing output (Ngoc Huynh et al., 2024). These findings support the proposition that creativity is a source of original ideas serving as raw materials for innovating products, services, and business models (Audretsch & Belitski, 2022), enabling organizations to offer superior products/services and maintain relevance in dynamic markets (Jin & Shao, 2022).

Organizational productivity significantly impacts financial performance (H3), showing that productivity motivates SMEs to produce, develop, and meet the needs of more customers (Timothy, 2022). This finding reinforces the proposition that productivity reduces unit production costs (Buallay et al., 2021) while simultaneously enabling higher volumes, lowering average costs, and increasing price competitiveness (Ballestar et al., 2020). Furthermore, productivity enables SMEs to launch products faster than competitors, secure market share, and increase sales volume (Appolloni et al., 2022; Timothy, 2022), which eventually improves financial performance.

The significant relationship between organizational productivity and SCA (H4) shows that high-productivity SMEs possess cost and differentiation advantages. Cost advantages lead to greater output, competitive pricing, and the optimization of unique, rare, difficult-to-imitate, and non-substitutable internal capabilities (Arsawan et al., 2026) while differentiation produce products with quality and value that satisfy consumer needs (Bodlaj et al., 2020). The significant relationship between productivity and business diversification (H5) shows that productivity is an indicator of an organization's ability to optimize capital, human resources, and technology to achieve maximum output (Achmad & Wiratmadja, 2025). This finding supports previous study by Bettiol et al. (2023) that productivity is a driver of cash flow stability and the development of new products without threatening the sustainability of the core business. Additionally, diversification helps sustain growth in new markets, fostering strong competitiveness (X. Zhang et al., 2023).

Financial performance is significant to SCA (H6), showing that strong financial serve as a foundation for investing in innovation, resource development, and differentiation strategies supporting long-term competitiveness (Ahinful et al., 2023; Yadegaridehkordi et al., 2023). This transforms into unique assets that are difficult for competitors to imitate (Ratnawati et al., 2024) and increases agility (Shashi et al., 2019), creating an SCA (Ciza et al., 2025; Siddik et

p-ISSN: 2088-1231
e-ISSN: 2460-5328

al., 2023). The analysis supports empirical studies showing that SMEs with positive financial performance are more adaptive to market changes, maintaining a superior position relative to competitors (Ahinful et al., 2023; Akkas & Asutay, 2022; Syrová & Špička, 2023). Business diversification is significant for SCA (H7), showing that the strategy increases resilience and long-term competitive advantage (Dabić et al., 2021; Haider & Kayani, 2021). The findings support the proposition that diversification enables SMEs to exploit unique internal resources to expand the market reach (Ahmadi & Ershadi, 2021), create barriers to entry for competitors, build resilience, and diversify the revenue base. This allows for a stronger bargaining position, which collectively contributes to sustainable competitiveness (Bettiol et al., 2023).

Financial performance mediates organizational productivity and SCA (H8), underscoring its role in organizing SMEs to increase productivity while simultaneously reducing resource waste (Buallay et al., 2021). This improvement enables faster product development, increasing sales volume (Ballestar et al., 2020). In this regard, financial performance serves as the basis for innovation, resource development, and differentiation strategies that support long-term competitiveness (Ahinful et al., 2023; Yadegaridehkordi et al., 2023). Therefore, financial performance increases productivity and enhances SME competitiveness. Finally, business diversification mediates organizational productivity and SCA (H9), showing organizations' ability to optimize resources (Achmad & Wiratmadja, 2025), thereby enabling them to take calculated risks, such as launching new products or entering different markets (Bettiol et al., 2023; Che & Liebenberg, 2017). Business diversification helps managers sustain growth as new markets are being engaged, maintaining strong competitiveness (Suryantini et al., 2023; X. Zhang et al., 2023) and agility in responding to changing trends and demand fluctuations (Arsawan, et al., 2022; Panda & Rath, 2021). Scholars such as Dabić et al. (2021), and Haider & Kayani (2021) found that diversification increased resilience and long-term competitive advantage by enabling innovation and creating unique value, strengthening competitiveness (León-Gómez et al., 2025; Obeng et al., 2025). Therefore, diversification enables SMEs to leverage unique internal resources to build resilience and simultaneously enhance sustainable competitiveness (Bettiol et al., 2023).

Theoretical Implications

This study makes a significant theoretical contribution to the understanding of the drivers of sustainable competitive advantage (SCA) in the SME sector. First, it presents a mechanism-based integration of the Resource-Based View (RBV) and dynamic capabilities theories by conceptualizing fintech and creativity as strategic resources (RBV) that are reconfigured into adaptive capabilities (dynamic capabilities). Rather than treating these perspectives as parallel explanations, the study demonstrates how they interact sequentially. The RBV explains the role of strategic resources (i.e., fintech and creativity), while dynamic capabilities explain the reconfiguration and leveraging of those resources. This integration confirms prior findings regarding the importance of technology adoption and creativity (Tran Huy, 2025; Waqar et al., 2025)) in enhancing productivity toward SCA. Furthermore, the study promotes a process-based view of competitive advantage, wherein resources are not inherently valuable unless transformed into adaptive capabilities and strategic outcomes. It introduces productivity as a capability channel bridging resources (RBV) and adaptive reconfiguration processes (dynamic capabilities), thereby offering a dynamic explanation of SCA formation.

Second, this study reconceptualizes productivity as a dynamic capability channel that bridges initial resources and strategic outcomes, shifting the discourse from a static input-output logic. This extends the RBV framework (Barney, 1991) by positioning fintech as a crucial

p-ISSN: 2088-1231
e-ISSN: 2460-5328

antecedent for enhancing SME productivity. The analysis further positions fintech as both a specific resource and a unique capability capable of generating competitive advantage through improved efficiency and effectiveness in financial and operational processes. On the other hand, organizational creativity acts as a driver of product and service innovation while serving as a critical, direct input for day-to-day operational efficiency and effectiveness (Maria et al., 2022; Rumanti et al., 2023). This extends the scope of the Resource-Based View (RBV) (Barney et al., 2001) originally focused on new idea generation—to encompass the implementation of new ideas to streamline processes and improve workflows (Achmad & Wiratmadja, 2025; Zairbani & J. P, 2025). These findings offer meaningful insights by identifying four dimensions—individual creativity, team creativity, inter-organizational creativity, and knowledge creation—and demonstrating how creativity serves as a crucial driver of productivity. The results address gaps in the understanding of organizational creativity within the SME context (Rumanti et al., 2023). By employing a multi-level framework, this research demonstrates that team creativity acts as the primary driver in fostering firm-level innovation, especially concerning the enhancement of productivity for a sustainable competitive advantage (SCA). The collective capacity of a group to apply original problem-solving techniques, identify latent prospects, and adjust to dynamic environments embodies this team creativity (Arsawan et al., 2022; Tran Huy, 2025). Ultimately, these outcomes confirm the value of using a stratified methodology to properly assess the relative weight of the distinct components (K & Ranjit, 2022; Karaboga et al., 2022; Maria et al., 2022). Considering the importance of achieving SCA, team and organizational creativity can effectively facilitate increased productivity and SCA (Chaubey et al., 2021; Mikalef & Gupta, 2021). This study also makes a fundamental contribution by elucidating the mechanism through which productivity transformation indirectly drives sustainable competitive advantage—a departure from prior research that viewed productivity merely as an antecedent (Ballestar et al., 2020; Timothy, 2022). By empirically validating financial performance and business diversification as dual mediators, the study shifts the discourse from a static input-output logic toward a phased transformation process. This contribution addresses inconsistencies in the productivity literature and offers a more holistic explanation of why productivity gains do not invariably lead to sustainable competitive advantage for SMEs. The study reconceptualizes productivity as a transitional capability, the strategic value of which is realized through its conversion into financial accumulation and market expansion opportunities (Ahinful et al., 2023; Akkas & Asutay, 2022; Syrová & Špička, 2023).

Third, it extends the literature by empirically validating the dual mediating roles of financial performance and business diversification, explaining the multi-stage transformation process required to achieve sustainable competitive advantage in SMEs. Third, this study extends the literature by empirically validating the dual mediating roles of financial performance and business diversification, while also elucidating the multi-stage transformation process required for SMEs to achieve sustainable competitive advantage. The study proposes a systemic, multi-level capabilities framework. Findings indicate that competitiveness emerges from the interaction of technological, human resource, operational, financial, and strategic capabilities, rather than from a single dominant factor. Notably, the stronger influence of organizational creativity compared to fintech highlights the pivotal role of human-centric capabilities in driving productivity and subsequent strategic outcomes (Ahmad et al., 2022; Suryantini et al., 2024). This contribution challenges technology-centric discourse and introduces a hierarchical capabilities logic, wherein creativity (a deep, irreplaceable capability) and fintech (an empowering, replicable capability) operate complementarily but not on equal

p-ISSN: 2088-1231
e-ISSN: 2460-5328

footing. Thus, the study reconceptualizes SME competitiveness as an integrated system of capabilities, emphasizing the hierarchical and complementary roles of human resources and technology in attaining sustainable competitive advantage.

Managerial Implications

Based on a managerial perspective, this study offers four important contributions. First, SME management should allocate resources to adopt and integrate financial technology to streamline processes and reduce operational costs. Designing relevant training to improve employees' technology adoption output, speed, and accuracy is further important. Second, the management should build an innovative culture that fosters new ideas and considers risks and failures as learning opportunities. Managers could also establish innovation labs and provide structured time and space for employees to work on creative projects that can improve efficiency and work processes.

Third, increasing productivity is a key investment that provides better outcomes across various business areas. Therefore, managers need to monitor and evaluate the implementation of key performance indicators to measure productivity and explicitly link them to financial performance metrics (e.g., return on assets/equity) and strategic metrics (e.g., new market share). Managers need to leverage financial synergy and diversification to achieve long-term excellence.

CONCLUSION

In conclusion, organizational productivity plays a crucial role in enhancing financial performance and diversification, as well as building Sustainable Competitive Advantage (SCA) for SMEs. This study showed that productive organizations could effectively enhance financial performance and diversify. Financial performance and business diversification possessed an indirect influence on SCA. Therefore, internal organizational dynamics drive SMEs to boost productivity and carefully formulate diversification strategies in response to a rapidly changing environment. Furthermore, this study integrates Resource-Based View (RBV) theory and dynamic capabilities by proposing a new, comprehensive model to examine SCA within the SME context. It validates a phased transformation mechanism in which fintech adoption and organizational creativity serve as vital strategic resources that drive organizational productivity. Crucially, productivity alone is insufficient; it acts as a conduit for capabilities that must be transformed into robust financial performance and agile business diversification to achieve SCA. This integrated framework underscores that the optimization of internal resources must be sequentially aligned with financial mechanisms and market adaptation to thrive amidst an environment of uncertainty.

Limitations and further recommendations

Despite the significant contributions, this study possessed several limitations that warrant consideration and offer opportunities for future analysis. Although organizational creativity as a second-order construct was included, further investigation should examine the specific impact on SME productivity. Investigating the impacts of individual, team, interorganizational dynamics, and knowledge generation might offer deeper perspectives. Additionally, the reliance on a uniform cohort within the SME sector constrained the capacity to investigate industry-level differences regarding the attainment of SCA. Subsequent studies ought to employ a cross-industry approach to broaden the diversity of predictive factors, thereby

p-ISSN: 2088-1231
e-ISSN: 2460-5328

yielding more precise deductions about SCA. While this research highlighted organizational productivity as an essential capability for modern market competition, other pertinent attributes like enterprise agility and resilience are vital for fortifying competitive edge via diversification, necessitating deeper examination in upcoming studies. Ultimately, these boundaries serve as a stepping stone for subsequent inquiries aimed at broadening the comprehension of SCA within small businesses across diverse settings, cultural backgrounds, and core capabilities.

Acknowledgement

Thank you to Universitas Udayana for the PNBP DIPA research grant with the number: B/255.396/UN14.4.A/PT.01.03/2024.

REFERENCES

Abbasi, K., Alam, A., Brohi, N. A., Brohi, I. A., & Nasim, S. (2021). P2P lending Fintechs and SMEs' access to finance. *Economics Letters*, 204, 109890.

Achmad, F., & Wiratmadja, I. I. (2025). Organizational performance and competitive advantage in SMEs: The role of green innovation and knowledge management. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(2). https://doi.org/10.1016/j.joitmc.2025.100532.

Agyabeng-Mensah, Y., Afum, E., & Baah, C. (2024). Stakeholder pressure and circular supply chain practices: Moderating roles of environmental information exchange capability and circular innovation orientation. *Business Strategy and the Environment*, 33(6), 5703–5720.

Ahinful, G. S., Boakye, J. D., & Osei Bempah, N. D. (2023). Determinants of SMEs' financial performance: evidence from an emerging economy. *Journal of Small Business and Entrepreneurship*, 35(3), 362–386. https://doi.org/10.1080/08276331.2021.1885247.

Ahmad, M., Wu, Q., & Khattak, M. S. (2022). Intellectual capital, corporate social responsibility and sustainable competitive performance of small and medium-sized enterprises: mediating effects of organizational innovation. *Kybernetes*. https://doi.org/10.1108/K-02-2022-0234.

Ahmadi, S., & Ershadi, M. J. (2021). Investigating the role of social networking technology on the organizational agility: a structural equation modeling approach. *Journal of Advances in Management Research*, 18(4), 568–584. https://doi.org/10.1108/JAMR-04-2020-0052.

Aisjah, S., Arsawan, I. W. E., & Suhartanto, D. (2023). Predicting SME's business performance: Integrating stakeholder theory and performance based innovation model. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(3). https://doi.org/10.1016/j.joitmc.2023.100122.

Akkas, E., & Asutay, M. (2022). The impact of intellectual capital formation and knowledge economy on banking performance: a case study of GCC's conventional and Islamic banks. *Journal of Financial Reporting and Accounting*. https://doi.org/10.1108/JFRA-08-2021-0251.

Allal-Chérif, O., Costa Climent, J., & Ulrich Berenguer, K. J. (2023). Born to be sustainable: How to combine strategic disruption, open innovation, and process digitization to create a sustainable business. *Journal of Business Research*, 154. https://doi.org/10.1016/j.jbusres.2022.113379

Alsmairat, M. A. K., & AL-Shboul, M. A. (2023). Enabling supply chain efficacy through supply chain absorptive capacity and ambidexterity: empirical study from Middle East region-a moderated-mediation model. *Journal of Manufacturing Technology Management*, 34(6), 917–936.

Appolloni, A., D'Adamo, I., Gastaldi, M., Yazdani, M., & Settembre-Blundo, D. (2022). Reflective backward analysis to assess the operational performance and eco-efficiency of two industrial districts. *International Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-08-2021-0442.

Arsawan, I. W. E., De Hariyanti, N. K. ssy, Atmaja, I. M. A. D. S., Suhartanto, D., & Koval, V. (2022). Developing Organizational Agility in SMEs: An Investigation of Innovation's Roles and Strategic Flexibility. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 149. https://doi.org/https://doi.org/10.3390/joitmc8030149.

Arsawan, I. W. E., Kartikasari, A., Suhartanto, D., & Choirisa, S. F. (2026). Transitioning towards circular economy practices: the role of organizational capabilities and environmental Dynamism—Evidence from Indonesia. *Business Strategy and the Environment*, 35(1), 18–35.

Arsawan, I. W. E., Koval, V., Rajiani, I., Rustiarini, N. W., Supartha, W. G., & Suryantini, N. P. S. (2022). Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage. *International Journal of Productivity and Performance Management*, 71(2), 405–428. https://doi.org/10.1108/IJPPM-04-2020-0192.

Arsawan, I. W. E., Koval, V., Suhartanto, D., Harbar, Z., & Maslennikov, Y. (2022). Employee-Driven Innovation Capability: The Role of Knowledge, Creativity, and Time Sufficiency. *Intellectual Economics*, 16(2).

Audretsch, B. D., & Belitski, M. (2022). The limits to open innovation and its impact on innovation performance. *Technovation*, 102519. https://doi.org/10.1016/j.technovation.2022.102519.

Ballestar, M. T., Díaz-Chao, Á., Sainz, J., & Torrent-Sellens, J. (2020). Knowledge, robots and productivity in SMEs: Explaining the second digital wave. *Journal of Business Research*, 108(November 2019), 119–131. https://doi.org/10.1016/j.jbusres.2019.11.017.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. https://doi.org/10.1177/014920639101700108.

Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625–641. https://doi.org/10.1177/014920630102700601.

Bettiol, M., Capestro, M., Di Maria, E., & Micelli, S. (2023). How SMEs respond to an exogenous shock: Diversification, servitization and digitalization. *Journal of Digital Economy*, 2, 221–232. https://doi.org/10.1016/j.jdec.2024.01.006.

Bhat, M. A., & Abdelwahed, G. (2025). Unveiling the drivers of green innovation and their impact on sustainability performance: the mediating role of circular economy practices. International *Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-04-2025-0254.

Bodlaj, M., Kadic-Maglajlic, S., & Vida, I. (2020). Disentangling the impact of different innovation types, financial constraints and geographic diversification on SMEs' export growth. *Journal of Business Research*, 108(October), 466–475. https://doi.org/10.1016/j.jbusres.2018.10.043.

Buallay, A., Abuhommous, A. A., & Kukreja, G. (2021). The relationship between intellectual capital and employees' productivity: evidence from the Gulf Cooperation Council.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Journal of Management Development, 40(6). https://doi.org/10.1108/JMD-05-2019-0210.

Chaubey, A., Sahoo, C. K., & Das, K. C. (2021). Examining the effect of training and employee creativity on organizational innovation: a moderated mediation analysis. International *Journal of Organizational Analysis*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/ijoa-06-2020-2271.

Che, X., & Liebenberg, A. P. (2017). Effects of business diversification on asset risk-taking: Evidence from the US property-liability insurance industry. *Journal of Banking & Finance*, 77, 122–136.

Ciza, T. B., Kamdjoug, J. R. K., Biga-Diambeidou, M., Tchokote, I. D., & Kibekenge, G. B. (2025). Quality of accounting information and SMEs' financial performance: The mediating role of bank and informal financing. *Research in International Business and Finance*, 75. https://doi.org/10.1016/j.ribaf.2025.102763.

Dabić, M., Stojčić, N., Simić, M., Potocan, V., Slavković, M., & Nedelko, Z. (2021). Intellectual agility and innovation in micro and small businesses: The mediating role of entrepreneurial leadership. *Journal of Business Research*, 123, 683–695. https://doi.org/10.1016/j.jbusres.2020.10.013.

Falk, M., & de Lemos, F. F. (2019). Complementarity of R&D and productivity in SME export behavior. *Journal of Business Research*, 96(January 2018), 157–168. https://doi.org/10.1016/j.jbusres.2018.11.018.

Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92–93(July), 0–1. https://doi.org/10.1016/j.technovation.2018.11.004.

Guenther, P., Guenther, M., Ringle, C. M., Zaefarian, G., & Cartwright, S. (2023). Improving PLS-SEM use for business marketing research. *Industrial Marketing Management*, 111, 127–142.

Haider, S. A., & Kayani, U. N. (2021). The impact of customer knowledge management capability on project performance-mediating role of strategic agility. *Journal of Knowledge Management*, 25(2), 298–312. https://doi.org/10.1108/JKM-01-2020-0026.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *In European Business Review* (Vol. 31, Number 1). https://doi.org/10.1108/EBR-11-2018-0203.

Hair Jr, J. F., & Sarstedt, M. (2021). Data, measurement, and causal inferences in machine learning: opportunities and challenges for marketing. *Journal of Marketing Theory and Practice*, 29(1), 65–77.

Hazen, B. T., Overstreet, R. E., & Boone, C. A. (2015). Suggested reporting guidelines for structural equation modeling in supply chain management research. *The International Journal of Logistics Management*, 26(3), 627–641.

Hossain, M. S., Hussain, K., Kannan, S., & ... (2021). Determinants of sustainable competitive advantage from resource-based view: implications for hotel industry. *Journal of Hospitality and Tourism Insight.* https://doi.org/10.1108/JHTI-08-2020-0152

Iborra, M., Safón, V., & Dolz, C. (2020). What explains the resilience of SMEs? Ambidexterity capability and strategic consistency. *Long Range Planning*, 53(6), 101947. https://doi.org/https://doi.org/10.1016/j.lrp.2019.101947.

Jin, Y., & Shao, Y. (2022). Power-leveraging paradox and firm innovation : The influence of network power , knowledge integration and breakthrough innovation. *Industrial*

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Marketing Management, 102(December 2021), 205–215. https://doi.org/10.1016/j.indmarman.2022.01.007.

K, J., & Ranjit, G. (2022). Explicating intrinsic motivation's impact on job performance: employee creativity as a mediator. *Journal of Strategy and Management*. https://doi.org/10.1108/JSMA-04-2021-0091.

Karaboga, T., Erdal, N., Karaboga, H. A., & Tatoglu, E. (2022). Creativity as a mediator between personal accomplishment and task performance: A multigroup analysis based on gender during the COVID-19 pandemic. *Current Psychology*. https://doi.org/10.1007/s12144-021-02510-z.

Kazmi, S. W., & Ahmed, W. (2021). Understanding dynamic distribution capabilities to enhance supply chain performance: a dynamic capability view. *Benchmarking: An International Journal*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/BIJ-03-2021-0135.

Khandekar, A., & Sharma, A. (2005). Managing human resource capabilities for sustainable competitive advantage: An empirical analysis from Indian global organisations. *Education and Training*, 47(8–9), 628–639. https://doi.org/10.1108/00400910510633161

Ko, Y. J., & Choi, J. N. (2019). Overtime work as the antecedent of employee satisfaction, firm productivity, and innovation. *Journal of Organizational Behavior*, 40(3), 282–295. https://doi.org/10.1002/job.2328.

Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.

Lai, J. Y., Wang, J., Ulhas, K. R., & Chang, C. H. (2022). Aligning strategy with knowledge management system for improving innovation and business performance. *Technology Analysis and Strategic Management*, 34(4). https://doi.org/10.1080/09537325.2021.1907328.

Le, P. B. (2024). Applying knowledge-based human resource management to drive innovation: the roles of knowledge sharing and competitive intensity. *Management Research Review*, 47(4), 602–621.

León-Gómez, A., Santos-Jaén, J. M., Palacios-Manzano, M., & Garza-Sánchez, H. H. (2025). Unlocking sustainable competitive advantage: exploring the impact of technological innovations on performance in Mexican SMEs within the tourism sector. *Environment, Development and Sustainability*, 27(2), 3481–3511.

Lin, Y., & Wu, L.-Y. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research*, 67(3), 407–413.

Lopes de Sousa Jabbour, A. B., Laguir, I., Stekelorum, R., & Gupta, S. (2025). The nexus of artificial intelligence and sustainability performance: Unveiling the impact of supply chain transparency and customer pressure on ethical conduct. *Journal of Environmental Management*, 379. https://doi.org/10.1016/j.jenvman.2025.124847.

Madan, P., Srivastava, S., Alzeiby, E. A., & Cao, D. (2025). Proliferating green innovative work behavior through green organizational culture: Mediating role of green ambidexterity and values in the hospitality context. *International Journal of Hospitality Management*, 125. https://doi.org/10.1016/j.ijhm.2024.104006.

Mady, K., Abdul Halim, M. A. S., & Omar, K. (2022). Drivers of multiple eco-innovation and the impact on sustainable competitive advantage: evidence from manufacturing SMEs in Egypt. *International Journal of Innovation Science*, 14(1), 40–61. https://doi.org/10.1108/IJIS-01-2021-0016.

Malik, M., Ali, M., Latan, H., & Chiappetta Jabbour, C. J. (2023). Green project management practices, green knowledge acquisition and sustainable competitive advantage: empirical evidence. *Journal of Knowledge Management*, 27(9), 2350–2375. https://doi.org/10.1108/JKM-06-2022-0466.

Maria, A. D., Yulianto, H., Palupiningtyas, D., & Usodo, H. (2022). Relationship between transformational leadership, proactive personality, creative self-efficacy and employee creativity at food processing SMEs in Indonesia. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 10(3), 257–274.

Marrucci, L., Daddi, T., & Iraldo, F. (2022). The circular economy, environmental performance and environmental management systems: the role of absorptive capacity. *Journal of Knowledge Management*, 26(8), 2107–2132. https://doi.org/10.1108/JKM-06-2021-0437

Maulidi, A. (2025). Cost efficiency and green product innovation in SMEs for emerging economies: The roles of green brand knowledge and green innovation capability. *Journal of Cleaner Production*, 498. https://doi.org/10.1016/j.jclepro.2025.145130.

Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. *Information and Management*, 58(3). https://doi.org/10.1016/j.im.2021.103434.

Ngoc Huynh, H. T., Thanh Nguyen, N. T., & Y Vo, N. N. (2024). The influence of knowledge management, green transformational leadership, green organizational culture on green innovation and sustainable performance: The case of Vietnam. Journal of Open Innovation: *Technology, Market, and Complexity*, 10(4). https://doi.org/10.1016/j.joitmc.2024.100436.

Nugraha, D. P., Setiawan, B., Nathan, R. J., & Fekete-Farkas, M. (2022). FinTech adoption drivers for innovation for SMEs in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4), 208.

Obeng, H. A., Arhinful, R., Mensah, L., & Mensah, C. C. (2025). The mediating role of service quality in the relationship between corporate social responsibility and sustainable competitive advantages in an emerging economy. *Business Strategy & Development*, 8(1), e70099.

Panda, S., & Rath, S. K. (2021). Information technology capability, knowledge management capability, and organizational agility: The role of environmental factors. *Journal of Management and Organization*, 27(1), 148–174. https://doi.org/10.1017/jmo.2018.9.

Perotti, F. A., Troise, C., Ferraris, A., & Hirwani Wan Hussain, W. M. (2025). Bridging Innovation Management and Circular Economy: An Empirical Assessment of Green Innovation and Open Innovation. *Creativity and Innovation Management*, 34(2), 466–485. https://doi.org/10.1111/caim.12647.

Pizzi, S., Corbo, L., & Caputo, A. (2021). Fintech and SMEs sustainable business models: Reflections and considerations for a circular economy. *Journal of Cleaner Production*, 281, 125217. https://doi.org/https://doi.org/10.1016/j.jclepro.2020.125217.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *In Journal of Applied Psychology* (Vol. 88, Number 5). https://doi.org/10.1037/0021-9010.88.5.879.

Ramírez, Y., Dieguez-Soto, J., & Manzaneque, M. (2020). How does intellectual capital efficiency affect firm performance? The moderating role of family management.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

International *Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-03-2019-0119.

Rasheed, M. I., Malik, M. J., Pitafi, A. H., Iqbal, J., Anser, M. K., & Abbas, M. (2020). Usage of social media, student engagement, and creativity: The role of knowledge sharing behavior and cyberbullying. *Computers & Education*, 159, 104002. https://doi.org/https://doi.org/10.1016/j.compedu.2020.104002.

Ratnawati, K., Koval, V., Arsawan, I. W. E., Kazancoglu, Y., Lomachynska, I., & Skyba, H. (2024). Leveraging financial literacy into sustainable business performance: a mediated-moderated model. *Business, Management and Economics Engineering*, 22(2), 333–356.

Roy, S. K., Dey, B. L., Brown, D. M., Abid, A., Apostolidis, C., Christofi, M., & Tarba, S. (2025). Business model innovation through AI adaptation: the role of strategic human resources management. *British Journal of Management*, 36(2), 546–559.

Rumanti, A. A., Rizana, A. F., & Achmad, F. (2023). Exploring the role of organizational creativity and open innovation in enhancing SMEs performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2), 100045.

Setiawan, B., Nugraha, D. P., Irawan, A., Nathan, R. J., & Zoltan, Z. (2021). User innovativeness and fintech adoption in indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3). https://doi.org/10.3390/joitmc7030188.

Shashi, Centobelli, P., Cerchione, R., & Singh, R. (2019). The impact of leanness and innovativeness on environmental and financial performance: Insights from Indian SMEs. *International Journal of Production Economics*, 212, 111–124. https://doi.org/https://doi.org/10.1016/j.ijpe.2019.02.011.

Siddik, A. B., Rahman, M. N., & Yong, L. (2023). Do fintech adoption and financial literacy improve corporate sustainability performance? The mediating role of access to finance. *Journal of Cleaner Production*, 421. https://doi.org/10.1016/j.jclepro.2023.137658

Suryantini, N. P. S., Aisjah, S., & Ratnawati, K. (2024). Enhancing Sustainable Competitive Advantage in SMEs: Aligning Intellectual Capital and Business Performance Model. *Calitatea*, 25(198), 299–314.

Suryantini, N. P. S., Moeljadi, Aisjah, S., & Ratnawati, K. (2023). The Sustainable Competitive Advantage of SMEs Towards Intellectual Capital: The Role of Technology Adoption and Strategic Flexibility. *Intellectual Economics*, 17(1). https://doi.org/10.13165/IE-23-17-1-02.

Syrová, L., & Špička, J. (2023). Exploring the indirect links between enterprise risk management and the financial performance of SMEs. *Risk Management*, 25(1). https://doi.org/10.1057/s41283-022-00107-9.

Teece, D. J., Pisano, G., & Shuen, A. (2009). Dynamic capabilities and strategic management. *Knowledge and Strategy*, 18(March), 77–116. https://doi.org/10.1093/0199248540.003.0013.

Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159–205.

Timothy, V. L. (2022). The effect of top managers' human capital on SME productivity: The mediating role of innovation. *Heliyon*, 8(4).

Tran Huy, P. (2025). How does high-performance work system influence employees' creativity? The role of critical reflection and human resource management attribution. *International Journal of Emerging Markets*, 20(2), 638–659.

Ur Rehman, Z., Shafique, I., Khawaja, K. F., Saeed, M., & Kalyar, M. N. (2021). Linking responsible leadership with financial and environmental performance: determining

p-ISSN: 2088-1231
e-ISSN: 2460-5328

mediation and moderation. *International Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-12-2020-0626.

Waqar, M., Sohail, A., Bashir, Z., Cai, Z., Ahmad, M., & Mehak, G. (2025). Fintech revolution and sustainability: Unveiling the impact on SMEs through circular economy and green innovation practices. *Sustainable Futures*, 9. https://doi.org/10.1016/j.sftr.2025.100714.

Yadegaridehkordi, E., Foroughi, B., Iranmanesh, M., Nilashi, M., & Ghobakhloo, M. (2023). Determinants of environmental, financial, and social sustainable performance of manufacturing SMEs in Malaysia. *Sustainable Production and Consumption*, 35, 129–140. https://doi.org/10.1016/j.spc.2022.10.026.

Zairbani, A., & J. P, S. K. (2025). How Does Green Knowledge Sharing Improve Sustainable Business Performance? *Knowledge and Process Management*, 32(1), 42–53. https://doi.org/10.1002/kpm.1796.

Zhang, P. (2025). Implementing circular supply chain in Chinese SMEs: The role of bricolage capability, frugal innovation, and entrepreneurial leadership. *International Review of Economics and Finance*, 103. https://doi.org/10.1016/j.iref.2025.104526

Zhang, X., Chu, Z., Ren, L., & Xing, J. (2023). Open innovation and sustainable competitive advantage: The role of organizational learning. *Technological Forecasting and Social Change*, 186. https://doi.org/10.1016/j.techfore.2022.122114.