Organisational Capabilities and Product Innovation Performance among Nigerian Food and Beverage Companies

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ABSTRACT

This study examined the mediatory role of entrepreneurial orientation capability in the link between knowledge management capability and product innovation, using a survey research design and a validated questionnaire for data collection. The population was 672 Lagos-based food and beverage manufacturing companies from which six quoted companies were randomly selected as the study's sampling frame. A sample size of 353 managers was mathematically determined, while proportional and simple random sampling techniques were employed. The response rate was 61.19%. Data was analysed using descriptive statistics and partial least square structural equation modelling. The findings showed that knowledge management capability mediated by entrepreneurial orientation capability has a significant positive effect on product innovation. The study concluded that organisational capabilities positively affect innovation performance. The positive effect is particularly enhanced when entrepreneurial orientation capability is employed as a mediatory variable to link knowledge management and product innovation. The study contributes to extant knowledge by demonstrating that a complementary combination of capabilities can enhance innovation performance, thereby helping to clarify contentions about firms' capacity to respond to changes in the business environment. In addition, the study contributes to theory development as the findings reinforced, the complementary perspective of the resource-based view where one firm resource mediates with other resources to influence innovation performance.

Keywords: Entrepreneurial orientation, Innovation performance, Knowledge management capability, Product innovation

INTRODUCTION

As markets globally become increasingly impacted by changing environmental forces, companies are regularly reevaluating their business performance and strategies (Waleczek et al., 2019). The primary concern for the companies is not only to sustain their position in the global market while strategising to handle probable future challenges, but to also attain a higher level of performance (Nasir et al., 2022). With globalisation, intense technological changes and the uncertainty caused by the economic crisis, innovation performance has become indispensable for competing in turbulent environments. Innovation is a central mechanism that helps companies improve their results, increase competitiveness, and stand out in the marketplace (Dominquez-Escrig et al., 2023; Lee *et al.*, 2020). For this reason, therefore, it is essential to know which factors facilitate the creation of desirable innovation performance by companies.

Extant studies suggest that organisational capabilities, which are in the form of amassed employees' knowledge, skills, experiences, and organisational routines, enhance a firm's creation of novel value-enhancing systems, processes and products, and foster competitive advantages (George & Kerai, 2022; Khan & Tao, 2022; Teece et al., 1997). While there has been tremendous growth in research on knowledge management as an organisational capability and innovation, it is still unclear whether firm's ability to manage knowledge related resources impact product innovation (Akpa et al., 2020; Dimitrios et al., 2018; Idrees et al.,

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2023; Inkow, 2020; Tekin & Akyol, 2019). Results of extant studies have been inconsistent, signifying that the knowledge management and product innovation link requires further research (Ibidunni et al., 2020; Idrees et al., 2022; Li et al., 2019; Robertson et al., 2023; Salunke et al., 2019).

Furthermore, although the role of organisational capabilities such as knowledge management and entrepreneurial orientation in facilitating performance is emphasised and acknowledged in the literature, the mechanisms by which they impact performance remains largely unexplored (Schilke et al., 2018; Venkatesh & Prasher, 2021). In this regard, while extant literature highlights some mediators between organisational capabilities and performance, very little is known about the mediatory role of entrepreneurial orientation regarding innovation performance (Covin & Wales, 2019; Kiyabo & Isaga, 2020). Most studies have used entrepreneurial orientation as an independent variable in relation to performance (Kiyabo & Isaga, 2020). Entrepreneurial orientation constitutes an organisational phenomenon that reflects a managerial capability by which firms embark on proactive and aggressive initiatives to alter the competitive scene to their advantage (Avlonitis & Salavou, 2007, as cited in Solikahan & Mohammad, 2019). As such, entrepreneurial orientation can enable the organisation to better direct its capabilities to perceive and seize novel business opportunities to improve innovation performance (Al-Jinini et al., 2019). It has been shown that entrepreneurial orientation facilitates a firm's ability to sense, seize, and exploit opportunities by recalibrating the firm's internal and external competencies to address and shape changing business environments (Anwar et al., 2022).

The notions of product innovation, knowledge management, and entrepreneurial orientation are particularly important in the context of the food and beverage industry in view of the fossilization threats emanating from increasing resource scarcity and the associated upsurge in input cost (Grylls, 2023; Woodward, 2024). Besides, companies in the sector are encumbered with intense competition triggered by changing consumer tastes and technology as well as the globalization of markets and resources (Shaher & Ali, 2020; Zarei & Jabbarzadeh, 2019). Moreover, the food and beverage sector is one of the most important industries worldwide (Avermaete et al., 2004) and it is critical to the overall global economy. In Sub-Saharan Africa, the food and beverage market is projected to grow by US$1 trillion in value by 2030 (World Bank, 2013). In recent years, the performance and contribution of the players in the industry to the Nigerian economy has grown in value and relevance (Adeniran et al., 2024; Zhou et al., 2021). The industry accounts for 22.5% of the manufacturing industry value and 4.6% of Nigeria's Gross Domestic Product (Flanders, 2020). Besides, the food and beverage industry have strong linkages with several other industries such as agriculture, chemicals, packaging, pharmaceuticals, and logistics. These linkages further underline the sector's importance to Nigeria's socio-economic development and growth.

However, despite the numerous studies highlighting the role of organisational capabilities in companies' innovation performance, researchers are still divided on whether organisational capabilities have a strong relationship with innovation performance (Rose et al., 2020; Tan & Olaore, 2020). The neglect of the underlying mechanism that enhances the contribution of organisational capabilities to firms' innovation performance account for the lack of a holistic understanding (Schilke et al., 2018; Venkatesh & Prasher, 2021). Some studies suggest that innovation success depends on the unique combination of diverse organisational capabilities firms are able to skillfully deploy in response to the changing environment (Inkow, 2019; Otioma, 2022; Sancho-Zamora et al., 2022). In this respect, prior studies have suggested that entrepreneurial orientation can be an effective tool that assists organisations to enhance performance outcomes.

Nevertheless, there have been limited studies on the mediating influences in the relationships concerning entrepreneurial orientation (Adam et al., 2022; Bakar et al., 2014). Although several studies have examined the mediating roles of knowledge management in the link between entrepreneurial orientation and innovation (Adam et al., 2022; Ferraris et al., 2019; Nasution et al., 2021), few studies have considered the mediating role of entrepreneurial orientation in the relationship between knowledge management and product innovation (Adam et al., 2022; Bakar et al., 2014). Thus, this research track regarding the mediating role of entrepreneurial orientation in the link between knowledge management and product innovation is yet to be extensively explored and well understood. Accordingly, this study intends also to examine the mediating role of entrepreneurial orientation in the link between knowledge management and product innovation using food and beverage manufacturing companies in Nigeria as context.

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LITERATURE REVIEW

Knowledge Management and Product Innovation

The knowledge management literature reverberates with varied descriptions of the construct. From the process perspective, it is described as a system that aids an organisation's quest to select, organise, disseminate, and transfer information germane to its operations (Di Vaio et al., 2021). Also, it is referred to as the all-inclusive procedure to recognise, synthesise, transmit, and use information and skills (Ammirato et al., 2021; Teran-Bustamante et al., 2021). Knowledge management is a process involving collective knowledge creation, organisation, usage, and sharing within a business entity (Asif et al., 2021). The ability perspective of knowledge management described it as the capacity to gather information from internal and external sources, use it to evolve new strategies and ensure its proper storage (Machado et al., 2022). Also, Rafi et al. (2022) expressed knowledge management as the organisational ability to provide information and skills that develop new performance-enhancing proficiencies to motivate innovation and generate higher value for customers. Thus, Knowledge management is a framework for producing, circulating, sharing, using, and improving valuable individual and organisational knowledge to generate value for the organisation. It includes defining how the organisation acquires and shares relevant data and information within and outside the organisation.

Bodas Freitas & Fontana (2018) as cited in Alhamad and Mabkhot (2023) stated that product innovation is a chain of activities that includes market research, new product design and development, consistent with the prevailing competitive market forces. Maier (2018) avow that product innovation can manifest in several ways, which includes changes in product concepts emanating from an innovative idea which may or may not have a current technological basis. Also, Maier (2018) noted that product innovation can be manifested in the use of new materials to make an existing product. Moreover, a redesign of a product in terms of shape, ergonomics, or manufacturing is a manifestation of product innovation.

Furthermore, product innovation enables firms to create novel and unique offerings, improve brand effectiveness, and can foster sustainable competitive advantage. Also, product innovation is critical to establishing brand loyalty, because it is an indication of quality and organisational commitment (Manhas et al., 2024). Puriwat and Hoonsopon (2021) states that innovation results when resources and capabilities are integrated to apply new ideas or creativity to develop unique products. Montero et al. (2017) concluded from their literature review that product innovation consists of successfully exploiting new ideas, which implies two conditions: novelty and use. Song et al. (2019) noted that product innovation is a framework for altering the scope of a propelled innovation's effectiveness.

Since innovation implies product improvement through the replacement of obsolete products or improved quality and a reduction of costs, the company will increase its profit and its market share ((Meroño-Cerdán & López-Nicolás, 2017). Product innovation can improve the competitiveness of the firm. It can also increase resource utilisation efficiency, increase investment and sales profits, develop the latest market and improve the firm image (Jaisinghani, 2016, as cited in Augustia et al., 2022). Product innovation is a firm resource that can be harnessed as a strategic marketing tool to improve a firm's overall performance. The development of incremental and exploitative product innovation depends on existing knowledge alongside the ideal products and services for the existing consumers. The existing literature suggests that an appropriate combination of radical and incremental innovation is essential for long-term success (De Visser & Faems, 2015). Thus, this study postulates that:

Hypothesis 1: There is a significant positive impact of knowledge management on product innovation.

Knowledge Management and Entrepreneurial Orientation

Knowledge is a very vital resource that enable firms to establish an extensive and long-standing competitive advantage. Using intellectual resources effectively provides a strategic means to secure a competitive advantage for businesses (Teran-Bustamante et al., 2021; Waribugo et al., 2016). Therefore, firms must establish a knowledge management process to acquire, share, and apply pertinent market and environment-related knowledge for productive and innovative operations (Ha et al., 2021). Also, some authors have argued

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that an entrepreneurial mindset is essential for gathering resources and to utilise them for innovation improvement purpose (Ferreira et al., 2020; Funmilayo et al., 2022). Lumpkin and Dess (1996) states that entrepreneurial orientation is a disposition to align organisational processes, procedures and decision-making activities to effect new market entrance. Similarly, Asemokha et al. (2019) explained that entrepreneurial orientation involves practices, processes, and activities firms use to stimulate innovation and market entry decisions. Entrepreneurial orientation reflects a set of organisational activities in which key managers capture and pursue new opportunities in the marketplace through innovative, risk-taking and proactive behaviour (Dong & Wang, 2022; Su, 2020). Recent research conducted by Court and Ogbolo (2023) suggests that knowledge sharing affected innovativeness and competitiveness dimensions of entrepreneurial orientation positively and significantly. However, its effect on risk-taking, proactiveness, and autonomy dimensions was positive, but not significant. Therefore, the following hypothesis is postulated.

Hypothesis 2: There is a significant positive effect of knowledge management on entrepreneurial orientation capability.

The Mediatory Role of Entrepreneurial Orientation Capability

According to Covin and Slevin (1986) as cited in Rauch, et al. (2009), entrepreneurial orientation is the propensity of a firm to act autonomously, take risks and be proactive in an uncertain market condition. It is a willingness to be proactive towards market opportunity and competition, the ability to be innovative, and the commitment to make risky business decisions under uncertainty to gain competitive advantage (Wiklund & Shepherd, 2005). Whereas entrepreneurial orientation has been described from various perspectives, most researchers conceptualise it as a three-dimensional construct consisting of innovativeness, proactiveness, and risk-taking. (Ferreras-Mendez et al., 2021; Yu et al., 2022).

Innovativeness is described as firms' willingness to engage in experiments that will generate new sources of competitive advantages in the form of new processes, materials and resources, products, and markets (Atalay et al., 2013; Ferreras-Mendez et al., 2021; Rubera & Kirca, 2012). Thus, innovativeness is a firm's openness to new ideas and market possibilities to create new-to-the-world products, processes, and services. Risk-taking, the second dimension of entrepreneurial orientation, is conceived as a deliberate commitment of resources and courageous actions in pursuit of opportunities despite the possibility of loss. Karimi and Walter (2016) concurred with Rauch et al. (2009) in defining risk-taking as making decisions and taking actions without specific knowledge of probable outcomes or committing significant resources to ventures in uncertain environments.

The entrepreneurial literature records that proactiveness is the third dimension of entrepreneurial orientation. It is defined as opportunity-seeking, forward-looking actions that seek to launch new products or technological capabilities ahead of industry rivals in anticipation of future demand, which can lead to opportunities for new venture creation (Karimi & Walter, 2016). Similarly, Brettel et al. (2015) state that proactiveness is a forward-looking perspective accompanied by innovative or new venturing activity that aims to bring products or services to the market ahead of the competition. Entrepreneurial orientation, therefore, is characterised as a behaviour that is geared towards passionate inventiveness, competitive fierceness, proactivity, autonomy, and risk propensity (Al-Shami et al., 2022; Pearce et al., 2010).

Although knowledge management capability enhances innovation, having knowledge assets does not guarantee an innovation-driven competitive advantage in the prevailing volatile business environment. The resource-based view of the firm provides a complementary perspective where one firm resource mediates with other resources to influence innovation performance (Schilke et al., 2018; Venkatesh & Prasher, 2021; Teece, 2016). As a strategic orientation, entrepreneurial orientation can lead to superior product innovation outcomes because it prompts business owners and managers to be attentive and responsive to evolving market conditions, thereby enhancing innovation (Masa'deh et al., 2018; Yu et al., 2022). Entrepreneurial orientation can direct firms towards resource leverage to unlock new market opportunities (Ha et al., 2021). Under an entrepreneurial culture, firms are encouraged to configure knowledge resources into commercially valuable resource bundles. Entrepreneurial orientation can make firms innovative, pre-emptive, and risk-taking (Han et al., 2022; Tseng et al., 2019). Through entrepreneurial orientation, companies may be better able to acquire,

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share, and apply new knowledge to ensure better product innovation performance. In an innovation environment where the pace of technological change is accelerating, and operating costs are rising, entrepreneurially oriented enterprises can plan their goals, quickly assess the business climate to secure market-related information to get ahead of rivals in new product development and launch, and gain first mover competitive advantage (Asemokha et al., 2019; Dong & Wang, 2022). Hence, the below hypothesis is proposed.

Hypothesis 3: Knowledge management capability mediated by entrepreneurial orientation capability positively and significantly affect product innovation.

METHODOLOGY

The survey research design was employed for the study. It involved cross-sectional collection of primary data from six Lagos-based food and beverage manufacturing companies quoted in the Nigerian Exchange Group (NGX). These companies were randomly selected from the 672 food and beverage manufacturing companies operating in Lagos State listed on the Nigerian Directory as of November 2023 (see Chang et al., 2015; Le & Phong, 2023; Mostaghel et al., 2019; Ode & Ayavoo, 2020). The food and beverage industry includes all companies involved in the processing, packaging, and distribution of raw food materials. It also includes companies producing and selling prepared foods and alcoholic and non-alcoholic beverages (globaledge.msu.edu, n.d.). The survey research approach enhances accuracy, ease of measurement, data gathering, factor identification, as well as extension and contribution to theory and practice (Abourokbah et al., 2023; Saunders, 2019).

Measures

The study's variables were measured using modified validated measures reported in previous studies to have met or exceeded the necessary standards for loading, predictive power, reliability, and validity. All measures were reflective and unidimensional five-point Likert scales. Following Yu et al. (2022), the study defined knowledge management as a firm's ability to acquire, share, and utilise knowledge. The measure for knowledge management capability consisted of six adapted items (Obeidat et al., 2016; Yu et al., 2022; Feng et al., 2022). As for entrepreneurial orientation capability (EO), this study measured the EO construct as a firm's ability to be innovative, proactive, and take risks. The EO measure involved six adapted items from recent empirical studies (Al-Jinini et al., 2019; Hughes & Morgan, 2007; Yu et al., 2022). Product innovation was measured as introducing a new or significantly improved product concerning features, function, or quality. The measure comprised of four items adapted from Al-Jinini et al. (2019).

Sample and Data Collection

The five-Likert scale questionnaire was adopted as data collection instrument. The questionnaire comprised of respondents' demography profile and measures for knowledge management capability, entrepreneurial orientation capability and product innovation respectively. We used proportional and simple random sampling techniques to administer the questionnaire to the mathematically determined sample size of 353 managers.

RESULTS

Measurement Model

Construct Validity and Reliability

The research instrument's construct reliability and convergent validity were assessed using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) statistics generated through SMART PLS 3 Software. The literature prescribed the benchmark for these construct measures as above 0.70 for both Cronbach alpha and composite reliability (Abdurrahman et al., 2024: Hair et al., 2021: Sarstedt et al., 2016), while AVE is to be determined at 0.50 (Fornell & Larcker, 1981; Hair et al., 2019). The results of Cronbach's

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alpha coefficient, composite reliability (CR), and Average Variance Extracted (AVE) are presented in Table 4.2, showing that the study's instrument satisfied the respective benchmarks prescribed.

Table 4.2 Construct validity and reliability

	Loading	VIF	P Value	AVE	Composite Reliability	Cronbach's Alpha
Constructs	≥ 0.70	<5.0	<.05	≥0.50	≥ 0.70	> 0.70
Knowledge Management Capability				0.581	0.892	0.854
KMC1	0.781	1.812	0.000			
KMC2	0.761	1.773	0.000			
KMC3	0.860	1.952	0.000			
KMC4	0.734	1.847	0.000			
KMC5	0.724	1.800	0.000			
KMC6	0.703	1.778	0.000			
Entrepreneurial Orientation Capability (EOC)				0.639	0.914	0.886
EOC1	0.729	2.025	0.000			
EOC2	0.861	1.888	0.000			
EOC3	0.742	2.232	0.000			
EOC4	0.793	1.881	0.000			
EOC5	0.851	1.965	0.000			
EOC6	0.813	1.892	0.000			
Product Innovation (PROI)				0.623	0.868	0.799
PROI1	0.870	1.867	0.000			
PROI2	0.791	1.925	0.000			
PROI3	0.743	2.100	0.000			
PROI4	0.745	2.075	0.000			

Discriminant Validity

In addition, the heterotrait-monotrait discriminant values were ascertained using the heterotrait-monotrait (HTMT) ratio to establish discriminant validity, presented in Table 4.3. It shows that every value is below the prescribed critical threshold of 0.85 (Hair et al., 2017). Discriminant validity is further supported by the average correlation between a heterotrait and a heteromethod, which is lower than between a monotrait and a heteromethod.

Table 4.3 Discriminant validity

	EOC	KMC	PROI
EOC			
KMC	0.421 [0.380; 0.565]		
PROI	0.511 [0.412; 0.6574]	0.498 [0.391; 0.584]	

Note. EOC- Entrepreneurial Orientation Capability, KMC- knowledge management capability**,** PROI- Product Innovation

Common Method Bias

The variance inflation factor (VIF) was employed to evaluate common method bias (CMB). A perfect lack of collinearity is implied by a VIF score of one, but many researchers recommend a threshold of 5.0 (Shrestha,

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2020). The VIF values for every component in each variable evaluation are far lower than the cautious 5.0 threshold, as Table 4.2 demonstrates. It implies that CMB have no influence on the study.

Evaluation of the Inner Structural Model and Fitness

The statistical significance of the inner structural model was assessed using path coefficients. In the PLS-SEM, bootstrapping is a critical tool for determining the degree of relevance. This study used the default bootstrapping procedure with 5000 subsamples. Table 4.4 and Figure 4.1 display the internal structural model, which describes how knowledge management capability and entrepreneurial orientation capability promote product innovation. All model fit indices for the measurement model were within an acceptable range and exceeded the specified cutoff limit, as shown in the Table 4.4.

Table 4.4 Model fit indices

Model Fit Index	Measures	Benchmark	Model Value
	SRMR	< 0.08	0.075
Absolute Fit Index	Chi-Square	<3.0	2.274
	GFI	≥ 0.90	0.920
Incremental Fit Index	CFI	≥ 0.90	0.944
	NFI	≥ 0.90	0.933
	PCFI	≥ 0.50	0.655
Parsimony Fit Index	d_ULS	≥ 0.50	0.708
	d_G	≥ 0.50	0.563

Note. SRMR: Standardized Root Mean Squared Residual, d_ULS: the squared Euclidean distance, d_G: the geodesic distance, NFI: Normed Fit Index, CFI: Comparative Fit Index; PCFI: Parsimony Comparative Fit Index, GFI: Goodness of Fit Index

This study employed three main categories of fit indices: absolute fit measures, incremental fit measures, and parsimony fit measures, following the recommendations of Hair et al. (2022). According to Schuberth et al. (2023), absolute fit indices assess how well the sample data align with the model's a priori predictions. The SRMR value for knowledge management capability, entrepreneurial orientation, and product innovation was 0.075, which is below the 0.08 threshold, indicating an acceptable fit. The GFI of 0.920, exceeding the 0.90 cutoff, also reflects a good fit, and the CMIN/DF value further supports this with a strong fit.

The metrics for incremental fit evaluate the degree to which the tested model has outperformed a baseline model in which all variables are taken to be uncorrelated. For both NFI and CFI, a cutoff of 0.9 often indicates an acceptable fit (Tzafilkou et al., 2022). The NFI score of 0.933 for this study suggests that the research model is suitable. Parsimony fit indices make it possible to compare models and assess how well they fit samples belonging to the same population. The result of 0.655 for the Parsimony Comparative Fit Index (PCFI) is higher than the 0.50 threshold. Fornell and Larcker (1981) state that the RMSR value of 0.075 is within the acceptable range, and the CMIN/DF value is 2.274, less than three.

Also, the model acceptance determination criteria are based on NFI, GFI, and CFI values greater than 0.90. Besides, various methods for computing the difference in the analysis are determined using the d_ULS and d_G values (Hair et al., 2022). These results show that the model satisfies the required parameters and fits the data effectively.

The model acceptance criteria include NFI, GFI, and CFI values above 0.90. Additionally, the analysis incorporates various methods to compute differences, such as d_ULS and d_G values (Hair et al., 2022). These results confirm that the model meets the necessary parameters and effectively fits the data.

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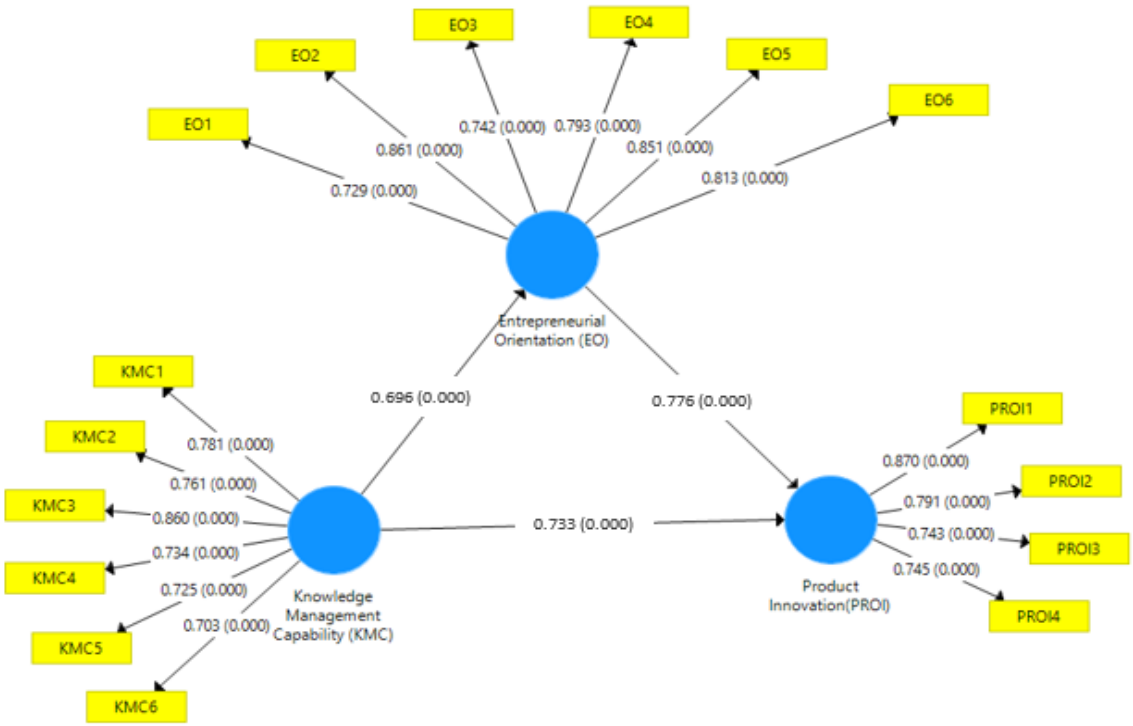

Fig 4.1 Path co-efficient and p-values for knowledge management capability. entrepreneurial orientation capability and product innovation

Predictive Relevance and Effect Size

According to Cheah et al. (2021), the Q2 values were used to assess the predictive usefulness of the metrics constructions and data points of indicators in PLS-SEM. Predictive relevance is defined as Q2 values greater than 0. This study's Q2 values for product innovation and entrepreneurial orientation capability are over zero, at 0.466 and 0.557, respectively. This suggests that there is predictive validity for these characteristics in the PLS path model. Also, the effect size was evaluated using the f-square approach. Fornell & Larcker (1981) provided the following classifications for f-square: >= 0.02 for small, >= 0.15 for medium, and >= 0.35 for large. The f-square values in this study for knowledge management capability and entrepreneurial orientation capability to promote product innovation are 7.520, 0.303, and 1.253 respectively. These numbers indicate a significant sample effect, indicating practical significance (Cohen, 1988, as cited in AlWahaibi et al., 2020).

Table 4.5 Path co-efficient for knowledge management capability, entrepreneurial orientation capability and product innovation

Variables and Cross Loading	Path Co-efficient	R-Squared	Std. Dev	T-Statistic	P-value
Knowledge Management Capability – Product Innovation	0.733	0.537	0.063	41.356	0.000
Knowledge Management Capability – Entrepreneurial Orientation Capability	0.696	0.484	0.056	32.235	0.000
Entrepreneurial Orientation Capability – Product Innovation	0.776	0.602	0.052	44.365	0.000

Table 4.5 shows the path coefficient for knowledge management capability, entrepreneurial orientation capability, and product innovation. This provides an in-depth analysis of how these variables interact within an organisational context, focusing on the mediating role of entrepreneurial orientation capability.

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DISCUSSION

Table 4.5 shows a strong positive association between entrepreneurial orientation capability and product innovation, with a path coefficient of 0.776. It shows that cultivating a strong entrepreneurial attitude, which includes innovation, proactiveness, and risk-taking, considerably improves an organisation's ability to execute product innovation. The R-squared value of 0.602 supports this, indicating that entrepreneurial-orientated capability accounts for 60.2% of the variance in product innovation. It highlights the vital role of entrepreneurial attitude in fostering product innovation, making it essential for organisations looking to reinvent their product-driven competitive strategy successfully. It enhances an organisation's propensity to be proactive and willingness to take risks to develop and market new products. This study's result is consistent with Gomes at al. (2022) and Yu et al. (2021) who reported that product innovation is increased by entrepreneurial actions.

Table 4.5 also shows the correlation between knowledge management and entrepreneurial-orientation capability. The path coefficient of 0.696 indicates a strong positive association, implying that good knowledge management, which includes acquiring, sharing, and using knowledge, directly improves an organisation's entrepreneurial orientation. The R-squared value of 0.484 supports this, indicating that knowledge management competence accounts for 48.4% of the variance in entrepreneurial-orientated capability. These findings emphasise the significance of knowledge management as a fundamental capability that supports and strengthens an organisation's entrepreneurial attitude. The findings align with that of prior studies such as Al-Jinini et al. (2019), Li et al. (2020) and Yu et al. (2022) which showed that a firm's cumulative knowledge can facilitate entrepreneurial orientation to help survival and expansion into new markets. Furthermore, Table 4.5 depicts the direct association between knowledge management competency and product innovation. With a path coefficient of 0.733, the statistics indicate that knowledge management strongly impacts product innovation. However, the R-squared value of 0.537 suggests that knowledge management skill is directly responsible for 53.7% of the variance in product innovation, slightly less than the influence revealed through the mediating role of entrepreneurial orientation.

The most crucial aspect deduced from this analysis is the critical complementary mediating impact of entrepreneurial orientation capability. While knowledge management competence directly impacts product innovation, it has a more significant impact when entrepreneurial orientation capability mediates this relationship. The higher path coefficient for the association between entrepreneurial orientation competence and product innovation implies that organisations can improve innovation outcomes by focusing on knowledge management and cultivating a robust entrepreneurial culture. This dual strategy uses knowledge management to strengthen entrepreneurial orientation, resulting in more effective and impactful product innovation.

In summary, Table 4.5 emphasises that organisations wishing to improve their product innovation performance should prioritise establishing robust knowledge management processes and cultivate an entrepreneurial mindset. The mediating role of entrepreneurial orientation capability enhances the impact of knowledge management on product innovation, making it a critical strategy for achieving long-term innovation and competitive advantage. As a cultural resource, entrepreneurial orientation is a rare resource that enhances employee entrepreneurial behaviour. Besides enhancing social system stability, organisational culture provides a sustained competitive advantage due to its strategic attributes of imitability, scarcity, value creation, and non-transferability (Barney, 1986; Hayton, 2005).

Managerial Implications

The study's findings provide practicing managers with relevant evidence-based organisational capabilities that can help them manage the challenges associated with the vagaries of the business environment. Their knowledge of these capabilities enhances their ability to achieve their quest for competitive advantage and sustainable growth. Interestingly, the findings point managers to the strategic means to boost product innovation by enhancing the companies' entrepreneurial orientation capability to complement knowledge management competencies. The study provided evidence that entrepreneurial orientation complements knowledge management to generate improved product innovation performance. Put succinctly, the outcome of

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this study shows practising managers the organisational competencies to develop as tools to strategically modify companies' resource configurations to adapt as markets emerge, collide, fragment, evolve and flop.

CONCLUSION

In line with the objective of this study, the mediatory effect of entrepreneurial orientation on the relationship between knowledge management and product innovation was examined, and the empirical result indicated that entrepreneurial orientation mediates the link between knowledge management and product innovation among food and beverage manufacturing companies. By introducing entrepreneurial orientation as a mediatory organisational capability variable in the context of large-scale enterprises, the study offers fresh insights into the causal relationship between the investigated sub-variables of organisational capabilities and innovation performance, namely, knowledge management, entrepreneurial orientation, and product innovation. The study demonstrated that the organisational capabilities examined could engender creativity and innovation, which are catalysts for superior organisational outcomes.

REFERENCES

1. Abdurrahman, A., Gustomo, A., & Prasetio, E.A. (2024). Impact of dynamic capabilities on digital transformation and innovation to improve banking performance: A TOE framework study. Journal of Open Innovation: Technology, Market and Complexity, 10(1), 100215. https://doi.org/10.1016/j.joitmc.2024.100215
2. Abourokbah, S.H., Mashat, R.M., & Salam, M.A. (2023). Role of absorptive capacity, digital capability, agility, and resilience in supply chain innovation performance. Sustainability, 15. https://doi.org/10.3390/su15043636
3. Adam, S., Fuzi, N.M., Ramdan, M.R., Isa, R.M., Ismail, A., Hashim, M.Y., Ong, S.Y.Y., & Ramlee, S.I.F. (2022), Entrepreneurial orientation and organizational performance of online business in Malaysia: The mediating role of the knowledge management process. Sustainability, 14(9). https:// doi.org/10.3390/su14095081
4. Adeniran, A.H., Olalere, J.O., Raufu, M.O., & Miftaudeen-Rauf, A.A. (2024). Effect of capacity utilization on productivity of food industry in Nigeria. Journal of Integrated Sciences, Special Issue, 281-300.
5. Agustia, D., & Haryanto, S.D., Permatasari, Y., & Midiantari, P.N. (2022). Product innovation, firm performance and moderating role of technology capabilities. Asian Journal of Accounting Research, 7(3), 252-265.doi: 10.1108/AJAR-12-2021-0266
6. Akpa, V.O., Akinlabi, B.H., Asikhia, P.T., & Nnorom, G.K. (2020). Knowledge management and performance of organizations: A case study of selected food and beverage firms. International Journal of Economics & Business Administration, 8(3),3-18. https//doi: 10.35808/ijeba/482
7. Alhamad, A., & Mabkhot, H. (2023). Determinants of product innovation performance in aviation industry in Saudi Arabia. Economies, 11(57). https://doi.org/10.3390/economies1102005
8. Al-Jinini, D.K., Dahiyat, S.E., & Bontis, N. (2019). Intellectual capital, entrepreneurial orientation, and technical innovation in small and medium-sized enterprises. Knowledge and Process Management, 26, 69–85. doi: 10.1002/KPM.1593
9. Al-Shami, S.A., Alsuwaidi, A.K.M.S., & Akmal, S. (2022). The effect of entrepreneurial orientation on innovation performance in the airport industry through learning orientation and strategic alignment. Cogent Business & Management, 9(1), https://doi.org/10.1080/23311975.2022.2095887
10. AlWahaibi, I.S.H., AlHadabi, D.A.M.Y., & AlKharusi, H.A.T. (2020). Cohen's criteria for interpreting practical significance indicators: A critical study. Cypriot Journal of Educational Science, 15(2), 246–258. https://doi.org/10.18844/cjes.v15i2.4624
11. Ammirato, S., Linzalone, R., & Felicetti, A.M. (2020). Knowledge management in pandemics: A critical literature review. Knowledge Management Research & Practice, 19(3), 1-12. https://doi.org/10.1080/14778238.2020.1801364
12. Anwar, M., Clauss, T., & Issah, W.B. (2022). Entrepreneurial orientation and new venture performance in emerging markets: the mediating role of opportunity recognition. Review of Managerial Science, 16, 769–796 https://doi.org/10.1007/s11846-021-00457-w

13. Asemokha, A., Musona, J., Torkkeli, L., & Saarenketo, S. (2019). Business model innovation and entrepreneurial orientation relationships in SMEs: Implications for international performance. Journal of International Entrepreneurship. 17, 425–453. https://doi.org/10.1007/s10843-019-00254-3
14. Asif, M.U., Asad, M., Kashif, M., & Haq, A. (2021). Knowledge exploitation and knowledge exploration for sustainable performance of SMEs. Third International Sustainability Resilience Conference: Climate Change, 29-34. doi:10.1109/IEEECONF53624.2021.9668135
15. Atalay, M., Anafarta, N., & Sarvan, F. (2013). The Relationship between Innovation and Firm Performance: An Empirical Evidence from Turkish Automotive Supplier Industry. Procedia - Social and Behavioral Sciences, 75(3), 226-235. doi.org/10.1016/j.sbspro.2013.04.026
16. Avermaete, T., Viaene, J., Morgan, E.J., Pitts, E., Crawford, N., & Mahon, D. (2004). Determinants of product and process innovation in small food manufacturing firms. Trends in Food Science & Technology, 15, 474–483. https://doi.org/10.1016/j.tifs.2004.04.005
17. Bakar, H.A., Mahmood, R., & Ismail, N.N.H. (2014). Combined effect of knowledge management and entrepreneurial orientation on performance of small and medium enterprises. Proceedings of the Knowledge Management International Conference (KMICe), 554–560. http://www.kmice.cms.net.my/
18. Barney, J.B. (1986). Organisational culture: Can it be a source of sustained competitive advantage? The Academy of Management Review, 11(3), 656-665. doi.org/10.2307/258317
19. Brettel, M., Chomik, T., & Flatten, T.C. (2015). How oeganizational culture influences innovativeness, proactiveness, and risk-taking: Fostering entrepreneurial orientation in SMEs. Journal of Small Business Management, 53(4), 868-885.
20. Chang, J., Bai, X., & Li, J.J. (2015). The influence of leadership on product and process innovations in China: The contingent role of knowledge acquisition capability. Industrial Marketing Management, 50(3). doi:10.1016/j.indmarman.2015.04.014
21. Cheah, J.H., Roldán, J. L., Ciavolino, E., Ting, H., & Ramayah, T. (2021). Sampling weight adjustments in partial least squares structural equation modeling: Guidelines and illustrations. Total Quality Management & Business Excellence, 32(13-14), 1594-1613. doi.org/10.1080/14783363.2020.1754125
22. Court, T.O., & Ogbolo, B.K. (2023). Knowledge sharing and entrepreneurial orientation of small and medium enterprises (SMES) in Nigeria. Scholarly Journal of Management Sciences Research, 2(6), 59-70.
23. Covin, J. G., & Wales, W.J. (2019). Crafting high-impact entrepreneurial orientation research: Some suggested guidelines. Entrepreneurship Theory and Practice, 43(1), 3–18. doi: 10.1177/1042258718773181
24. Danneels, E. (2002). The dynamics of product innovation and firm competences. Strategic Management Journal, 23, 1095-1121. http://dx.doi.org/10.1002/smj.275
25. De Visser, M., & Faems, D. (2015). Exploration and exploitation within firms: The impact of CEOs' cognitive style on incremental and radical innovation performance. Creativity and innovation management, 24(3), 359-372. **doi.org/10.1111/caim.12137**
26. Di Vaio, A.D., Palladino, R., Pezzi, A., & Kalisz, D.E. (2021). The role of digital innovation in knowledge management systems: A systematic literature review. Journal of Business Research, 123, 220-231. doi: 10.1016/j.jbusres.2020.09.042
27. Dimitrios, B., Ionnis, R., Efstathios, V., Christos, A., Dimitrios, T., & Labros, S. (2018). Successful and efficient knowledge management in the Greek hospitality industry: Change the perspective. Academic Journal of Interdisciplinary Studies, 7(1), 185-191. doi:10.2478/ajis-2018-0019 **doi.org/10.1111/jsbm.12108**
28. Dominiguez-Escrig, E., Broch, F.F.M., Chiva, R., & Alcami, R.L. (2023). Authentic leadership: Boosting organisational learning capability and innovation success. The Learning Organization, 30(1), 23-36. doi 10.1108/TLO-01-2021-0007
29. Dong, H., & Wang, B. (2022). Direct and Configurational Paths of Strategic Orientation and Business Model Innovation to Successful Enterprise Performance. IEEE Access, 10, 72671-72686. doi:10.1109/ACCESS.2022.3189772
30. Feng L., Zhao Z., Wang J., & Zhang K. (2022). The impact of knowledge management capabilities on innovation performance from dynamic capabilities perspective: Moderating the role of environmental dynamism. Sustainability,14(8). 4577. https://doi.org/10.3390/su14084577

31. Ferraris, A., Mazzoleni, A., Devalle, A., & Couturier, J. (2019). Big data analytics capabilities and knowledge management: Impact on firm performance, Management Decision, 57(8), 1923-1936. https://doi.org/10.1108/MD-07-2018-0825
32. Ferreira, J., Cardim, S., & Coelho, A. (2021). Dynamic capabilities and mediating effects of innovation on the competitive advantage and firm's performance: The moderating role of organizational learning capability. Journal of the Knowledge Economy, 12(2), 620-644. doi: 10.1007/s13132-020-00655-z
33. Ferreras-Mendez, J.L., Olmos-Peñuela, J., Salas-Vallina, A., & Alegre, J. (2021). Entrepreneurial orientation and new product development performance in SMEs: The mediating role of business model innovation. Technovation, 108, 102325. doi.org/10.1016/j.technovation.2021.102325
34. Flanders (2020). Food and beverage industry market overview in Nigeria. Flanders Investment and Trade Market Survey.https://www.flandersinvestmentandtrade.com/ export/sites/trade/files/market studies/Food%20%26%20Beverage%20Nigeria-2020.pdf
35. Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50. https://doi.org/10.2307/3151312
36. Funmilayo, A.K., Clement, M., Solomon, E.N., Ofori, E.K., & Onyedikachi, N. J. (2022). The impact of entrepreneurial orientation on innovation performance in Nigerian firms: The mediating effect of knowledge management. Open Journal of Business and Management, 10, 3409-3435.
37. George, N., & Kerai, A. (2022). Ordinary capabilities and firm performance: The role of capital market development. Asia Pacific Journal of Management, 41(3). https://doi.org/10.1007
38. Gomes, G., Seman, L.O., Berndt, A.C., & Bogoni, N. (2022). The role of entrepreneurial orientation, organizational learning capability and service innovation in organizational performance. Revista de Gestão, 29(1), 39-54. https://doi.org/10.1108/REGE-11-2020-0103.
39. Grylls, B. (2023). Food and beverage market overview: Challenging environment holds back innovation and productivity. Food Manufacture. https://www.foodmanufacture.co.uk/Article/2023/06/22/Food-and-beverage-market-overview-2023
40. Ha, S.T., Lo, M.C., Suaidi, M.K., Mohamad, A.Z., & Razak, Z.B. (2021). Knowledge management process, entrepreneurial orientation, and performance in SMEs: Evidence from an emerging economy. Sustainability, 13, 9791. https://doi.org/10.3390/su13179791
41. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 3rd Ed., Sage: Thousand Oaks.
42. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods. Journal of the Academy of Marketing Science, 45(5), 616–632. https://doi.org/10.1007/s11747-017-0517-x
43. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N.P., & Ray, S. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A workbook. Springer.
44. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203
45. Han, W., Zhou, Y. & Lu R. (2022). Strategic orientation, business model innovation and corporate performance—Evidence from construction industry. Frontiers in Psychology,13(971654). doi: 10.3389/fpsyg.2022.971654
46. Hayton, J.C. (2005). Competing in the new economy: the effect of intellectual capital on corporate entreprenerurship in high-technology new ventures. R&D Management, 35(2), 137–155. doi:10.1111/j.1467-9310.2005.00379.x
47. Hughes, M., & Morgan, R.E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. Industrial Marketing Management, 36, 651–661.
48. Ibidunni, A.S., Kolawole, A.I., Olokundun., M.A., & Ogbari, M.E. (2020). Knowledge transfer and innovation performance of small and medium enterprises (SMEs): An informal economy analysis. Heliyon, 6(8), e04740. https://doi.org/10.1016/j.heliyon.2020.e04740
49. Idrees, H., Hynek, J., Xu, J., Akbar, A., & Jabin, S. (2022). Impact of knowledge management capabilities on new product development performance through mediating role of organizational agility and moderating role of business model innovation. Frontiers in Psychology, 13, 950054. doi: 10.3389/fpsyg.2022.950054

50. Idrees, H., Xu, J., Haider, S.A., & Tehseen, S. (2023). A systematic review of knowledge management and new product development projects: Trends, issues, and challenges. Journal of Innovation & Knowledge, 8(2), 1-10. https://doi.org/10.1016/j.jik.2023.100350
51. Inkow, M. (2020). Organisational innovation capability as a result of knowledge management processes – a literature review. Management, 24(1). doi: 10.2478/manment-2019-0040
52. Karimi, J., & Walter, Z. (2016). Corporate entrepreneurship, disruptive business model, innovation adoption, and its performance: The case of the Newspaper Industry. Long Range Planning, 49, 342-360. https://doi.org/10.1016/j.lrp.2015.09.004
53. Khan, A., & Tao, M. (2022). Knowledge absorption capacity's efficacy to enhance innovation performance through big data analytics and digital platform capability. Journal of Innovation and Knowledge, 7(3), 100-201. https://doi.org/10.1016/j.jik.2022.100201
54. Kiyabo, K., & Isaga, N. (2020). Entrepreneurial orientation, competitive advantage, and SMEs' performance: Application of firm growth and personal wealth measures. Journal of Innovation & Entrepreneurship, 9(12), 1-15. https://doi.org/10.1186/s13731-020-00123-7
55. Le, T.T., & Phong, B.L. (2023). High-involvement HRM practices stimulate incremental and radical innovation: The roles of knowledge sharing and market turbulence. Journal of Open Innovation: Technology, Market, and Complexity, 9(1), 100006. https://doi.org/10.1016/j.joitmc.2023.02.003
56. Lee, A., Legood, A., Hughes, D., Tian, A.W., Newman, A., & Knight, C. (2020). Leadership, creativity and innovation: A meta-analytic review. European Journal of Work and Organizational Psychology, 29(1), 1-35. doi: 10.1080/1359432X.2019.1661837
57. Li, C., Ashraf, S.F., Shahzad, F., Bashir, I., Murad, M., Syed, N., & Riaz, M. (2020). Influence of knowledge management practices on entrepreneurial and organizational performance: A mediated-moderation model. Frontiers in Psychology, 11, 577106. https://doi.org/10.3389/fpsyg.2020.577106
58. Li, Y., Song, Y., Wang, J., & Li, C. (2019). Intellectual capital, knowledge sharing, and innovation performance: Evidence from the Chinese construction industry. Sustainability, 11, 2713. doi:10.3390/su11092713
59. Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. The Academy of Management Review, 21(1), 135-172. doi.org/10.2307/258632
60. Machado, A.B., Secinaro, S., Calandra, D., & Lanzalonga, F. (2021). Knowledge management and digital transformation for Industry 4.0: A structured literature review, Knowledge Management Research & Practice, 20(2), 320–338. doi: 10.1080/14778238.2021.2015261
61. Maier, D. (2018). Product and process innovation: A new perspective on the organizational development. International Journal of Advanced Engineering and Management Research, 3(6), 132-138.
62. Manhas, P. S., Sharma, P., & Quintela, J. A. (2024). Product innovation and customer experience: catalysts for enhancing satisfaction in quick service restaurants. Tourism and Hospitality, 5(3), 559-576. doi.org/10.3390/tourhosp5030034
63. Masa'deh, R., Al-Henzab, J., Tarhini, A., & Obeidat, B. (2018). The associations among market orientation, technology orientation, entrepreneurial orientation and organizational performance. Benchmarking An International Journal, 25(8):00-00. doi:10.1108/BIJ-02-2017-0024
64. Meroño-Cerdán, A.L., & López-Nicolás, C. (2017). Innovation objectives as determinants of organizational innovations. Innovation, 19(2), 208–226. doi:10.1080/14479338.2016.1276407
65. MonteroI, R., Pennano, C., & Ortigueira-Sánchez, L.C. (2017). Determinants of product innovation performance: Why are some innovations more successful than others? Economía y Desarrollo, 158(2), 43-62.
66. Mostaghel, R., Oghazi, P., Patel, P.C., Parida, V., & Hultman, M. (2019). Marketing and supply chain coordination and intelligence quality: A product innovation performance perspective. Journal of Business Research, 101(5), 597-606. doi:10.1016/j.jbusres.2019.02.058
67. Nasir, A., Zakaria, N., & Yussof, R.Z. (2022). The influence of transformational leadership on organizational sustainability in the context of industry 4.0: Mediating role of innovative performance. Cogent Business & Management, 9, 2105575 https://doi.org/10.1080/23311975.2022.2105575
68. Nasution, M., Rafiki, A., Lubis, A., & Rossanty, Y. (2021), Entrepreneurial orientation, knowledge management, dynamic capabilities towards e-commerce adoption of SMEs in Indonesia, Journal of

Science and Technology Policy Management, 12(2), 256-282. https://doi.org/10.1108/JSTPM-03-2020-0060

69. Obeidat, B., Al-Suradi, M.M., Masa'deh, R., & Tarhini, A. (2016). the impact of knowledge management on innovation: An empirical study on Jordanian consultancy firms. Management Research Review, 39(10), 1214-1238, doi: 10.1108/MRR-09-2015-0214
70. Ode, E., & Ayavoo, R. (2020). The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation. Journal of Innovation & Knowledge, 5(3), 210-218. https://doi.org/10.1016/j.jik.2019.08.002
71. Otioma, C. (2022). IT capability, organisational learning and innovation performance of firms in Kenya. Journal of the Knowledge Economy. https://doi.org/10.1007/s13132-021-00886-8
72. Pearce, J. A., Fritz, D. A., & Davis, P. S. (2010). Entrepreneurial orientation and the performance of religious congregations as predicted by rational choice theory. Entrepreneurship: Theory and Practice, 34(1), 219–248. doi.org/10.1111/j.1540- 6520.2009.00315.x
73. Puriwat, W., & Hoonsopon, D. (2021). Cultivating product innovation performance through creativity: The impact of organizational agility and flexibility under technological turbulence. Journal of Manufacturing Technology Management, 33(4), 741-762. doi.org/10.1108/jmtm-10-2020-0420
74. Rafi, N., Ahmed, A., Shafique, I., & Kalyar, M.N. (2022). Knowledge management capabilities and organizational agility as liaisons of business performance, South Asian Journal of Business Studies, 11(4), 397-417. https://doi.org/10.1108/SAJBS-05-2020-0145
75. Rauch, A., Wiklund, J., Lumpkin, G.T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. Entrepreneurship Theory and Practice, 33(3), 761-787. doi:10.1111/j.1540-6520.2009.00308.x
76. Robertson, J., Caruana, A., & Ferreira, C. (2023). Innovation performance: The effect of knowledge-based dynamic capabilities in cross-country innovation ecosystems. International Business Review, 32. 101866. https://doi.org/10.1016/j.ibusrev.2021.101866
77. Rose, A.L., Dee, J., & Leisyte, L. (2020), Organizational learning through projects: A case of a German university. The Learning Organization, 27(2), 85-99. doi:10.1108/tlo-11-2018-0200
78. Salunke, S., Weerawardena, J., & McColl-Kennedy, J.R. (2019). The central role of knowledge integration capability in service innovation-based competitive strategy. Industrial Marketing Management, 76(2). 144-156. doi:10.1016/j.indmarman.2018.07.004
79. Sancho-Zamora, R., Hernández-Perlines, F., Peña-García, I., & Gutiérrez-Broncano, S. (2022). The impact of absorptive capacity on innovation: The mediating role of organisational learning. International Journal of Entrepreneurial Research and Public Health, 19(2), 842. https://doi.org/10.3390/ijerph19020842
80. Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies! Journal of Business Research, 69(10), 3998–4010.
81. Saunders, M.N.K., Lewis, P., & Thornhill, A. (2019). Research Methods for Business Students (8th ed.). Pearson.
82. Schilke, O., Hu, S., & Helfat, C. E. (2018). Quo vadis, dynamic capabilities? A content analytic review of the current state of knowledge and recommendations for future research. Academy of Management Annals, 12(1), 390–439. doi:10.5465/annals.2016.0014
83. Schuberth, F., Rademaker, M.E., & Henseler, J. (2023). Assessing the overall fit of composite models estimated by partial least squares path modelling. European Journal of Marketing, 57(6),1678-1702. doi:10.1108/EJM-08-2020-0586
84. Shaher, A., & Ali, K. (2020). The effect of entrepreneurial orientation on innovation performance: The mediation role of learning orientation on Kuwait SME. Management Science Letter, 10, 3811–3820. doi:10.5267/j.msl.2020.7.030
85. Shrestha, N. (2020). Detecting multicollinearity in regression analysis. American Journal of Applied Mathematics and Statistics, 8(2), 39-42. doi:10.12691/ajams-8-2-1
86. Solikahan, E.Z., & Mohammad, A. (2019). Development of entrepreneurial orientation. International Journal of Applied Business & International Management, 4(1), 31-37.
87. Su, Z. (2020). Institutional environment for entrepreneurship, strategic flexibility, and entrepreneurial orientation. IEEE Transactions on Engineering Management, 69(4), 1-11. doi: 10.1109/TEM.2020.2969479

88. Tan, F.Z., & Olaore, G.O. (2022). Effect of organizational learning and effectiveness on the operations, employees productivity and management performance. Vilakshan - XIMB Journal of Management, 19(2), 110-127. https://doi.org/10.1108/XJM-09-2020-0122
89. Teece, D.J. (2016). Dynamic capabilities and entrepreneurial management in large organizations: Toward a theory of the entrepreneurial firm. European Economic Review, 86, 202-216. https://doi.org/10.1016/j.euroecorev.2015.11.006
90. Teece, D.J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509-533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z
91. Tekin, Z., & Akyol, A. (2019). The effects of knowledge and innovation management processes on innovation capability and new product development success. Business and Management; An International Journal, 7(1), 1-23. https://doi.org/10.15295/bmij.v7i1.1024
92. Terán-Bustamante, A., Martínez-Velasco, A., & Dávila-Aragón, G. (2021). Knowledge management for Open Innovation: Bayesian networks through machine learning. Journal of Open Innovation: Technology, Marketing, and Complexity, 7(1), 1-18. https://doi.org/10.3390/joitmc 7010040
93. Tseng, C., Chang, K., & Chen, H. (2019). Strategic orientation, environmental innovation capability, and environmental sustainability performance: the case of Taiwanese suppliers. Sustainability 11, 1127–1145. doi: 10.3390/su11041127
94. Tzafilkou, K., Perifanou, M., & Economides, A. A. (2022). Development and validation of students' digital competence scale (SDiCoS). International Journal of Educational Technology in Higher Education, 19(1). https://doi.org/10.1186/s41239-022-00330-0
95. Venkatesh, V.C., & Prasher, A. (2021). Dynamic capabilities in crises: A state of the art review. Academy of Strategic Management Journal 20(3).
96. Waleczek, P., Driesch, T., Flatten, T.C., & Brettel, M. (2019). On the dynamic bundles behind operations management and research and development. European Management Journal, 37, 175-187. https://doi.org/10.1016/j.emj.2018.03.005
97. Waribugo, S., Wilson, O.C., & Akpan, E.E. (2016). The impact of knowledge management on product innovation of manufacturing firms in Nigeria. Information and Knowledge Management, 16(6). 78-87.
98. Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. Journal of Business Venturing, 20, 71-91. https://doi.org/10.1016/j.jbusvent.2004.01.001
99. Woodward, R. (2024, February 14). 5 major challenges facing the food and beverage industry. Knowhow. https://knowhow.distrelec.com/food-and-beverages/5-major-challenges-facing-the-food-and-beverage-industry/
100. World Bank (2013). Africa's food markets could create one trillion-dollar opportunity by 2030. https://www.worldbank.org/en/news/press-release/2013/03/04/africas-food-markets-could-create-one-trillion-dollar-opportunity-2030
101. Yu, N. (2021). China: 3 trends driving the food and beverage industry. Eastspring Investments. https://www.eastspring.com/insights/asian-expert-series/china-3-trends-driving-the-food-and-beverage-industry
102. Yu, Q., Aslam, S., Murad, M., Jiatong, W., & Syed, N. (2022). The impact of knowledge management process and intellectual capital on entrepreneurial orientation and innovation. Frontiers in Psychology, 13, 772668. https://doi.org/10.3389/fpsyg.2022.772668
103. Zareia, E., & Jabbarzadeh, A. (2019). Knowledge management and social media: A scientometrics survey. International Journal of Data and Network Science, 3, 359–378.
104. Zhou, L.L, Ayegba, J.O., Ayegba, E.O., Ayegba, P.M., & Zhang, X. J. (2021). Impact of dynamic capacities on the performance of food and beverage enterprises in Lagos, Nigeria. Journal of Innovation and Entrepreneurship, 10(50), 1-24. https://doi.org/10.1186/s13731-021-00169-1