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Mediating Effect of Competitive Intensity on the Relationship between Knowledge Management Orientation and Organizational Performance

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Abstract

Managing organizational knowledge and the effective utilization of knowledge resources are crucial for fostering continuous learning and innovation, enabling employees to adopt best practices within the organization. By leveraging knowledge resources, businesses can enhance decision-making, streamline processes, and respond to market volatility, ultimately driving competitive advantage and overall success. To achieve superior organizational performance amidst dynamic environments, it is vital to understand the role of competitive intensity and its impact on knowledge management and overall success. In the literature on Knowledge Management (KM), there are numerous contradictory findings regarding the relationship between Knowledge Management Orientation (KMO) and Organizational Performance (OP). Empirical studies are essential to address this gap and explore the evolving relationships between KMO and OP. This study aims to identify the effect of KMO on OP, focusing on the mediating role of competitive intensity. The population for this study consists of listed companies in Sri Lanka, that employ a census sampling technique. The study received 254 responses from a total of 295 listed companies, utilizing a structured questionnaire for data collection. The findings indicate a positive and significant effect of KMO on OP. However, the study also reveals that competitive intensity does not mediate the relationship between KMO and OP. This research provides valuable insights for academics, policymakers, and industry practitioners. It concludes that organizations can achieve growth and success despite intense competition in the marketplace by effectively implementing knowledge management practices. This study offers robust insights into strategic decision making, suggesting that external environmental volatility should not constrain organizational policy decisions. Instead, when knowledge-based resources are effectively applied, organizations can achieve their ultimate goals. Future researchers are encouraged to further investigate this phenomenon to uncover new insights within the field of strategic management.

Keywords: Competitive Intensity, Knowledge Management Orientation, Organizational Performance

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Introduction

Under the knowledge economy, business organizations increasingly adopt knowledge-intensive practices to manage their activities (Saqib et al., 2017; Powell & Snellman, 2004). The knowledge economy encourages firms to address dynamic challenges and issues in the environment, such as the growing scarcity of resources (Režný et al., 2019) and intense competition, by managing organizational knowledge (Santoro et al., 2019; Peruta et al., 2013; Grant, 1996). In this context, knowledge is recognized as the most critical resource for generating wealth and prosperity (Farooq & Vij, 2019; Byukusenge & Munene, 2017; Grant, 1996), and it serves as a powerful driver of growth and success (Riege, 2007).

The Knowledge-Based View (KBV) of the firm emphasizes organizations as places where knowledge is integrated into day-to-day activities, focusing on creating and applying knowledge to gain a competitive advantage and achieve business growth (Grant, 1996). Literature highlights the importance of knowledge management (KM) as essential for achieving business success (Kmieciak & Michna, 2017) and as a strategic tool to enhance firm performance (Hussein et al., 2016; Darroch, 2005; Lee & Choi, 2003). However, technical and systematic approaches to KM alone are insufficient for achieving desired goals; the behavioral aspect of knowledge must also be considered. The behavioral perspective of knowledge enables firms to navigate competitive and dynamic environment better (Jayampathi et al., 2022). Therefore, strategic management scholars have introduced the concept of Knowledge Management Orientation (KMO) to understand the behavioral orientation of KM in organizations (Hussein et al., 2018; Wang et al., 2008). KMO can be defined as the organizational behavior in identifying, sharing, searching for, and combining existing and new knowledge for future purposes (Jayampathi et al., 2022; Wang et al., 2009). KMO is recognized as a key driver for organizations to achieve their goals and enhance performance (Zia, 2020; Hussein et al., 2018; Reyes et al., 2015; Liao & Wu, 2010; Wang et al., 2009; Wang et al., 2008).

Crucially, the literature reveals contradictory arguments regarding the KMO-OP (organizational performance) relationship. While some studies find that KMO positively influences OP (Hussein et al., 2019; Hassan & Rasiq, 2019; Iuliia, 2018; Reyes et al., 2015; Wang et al., 2009), others conclude that KMO negatively affects OP (Atthawej et al., 2020; Farooq & Vij, 2020; Hussein et al., 2019; Dzenopoljac et al., 2018; Heisig et al., 2016). Some scholars suggest that the mixed findings on the KMO-OP link may be due to other organizational factors (Jayampathi et al., 2021; 2022; Wang et al., 2009). While KBV highlights the importance of KMO in enhancing OP, the literature indicates a lack of substantial empirical studies investigating the KMO-OP link (Farooq & Vij, 2020; Atthawej et al., 2020; Hussein et al., 2019; Kmieciak & Michna, 2018; Heisig et al., 2016). Additionally, there is a notable lack of empirical evidence exploring the relationship between KMO and OP in Sri Lankan enterprises. This research gap can be addressed by incorporating other critical factors into the KMO-OP link. The organizational behavior in managing knowledge to improve performance may be mediated by environmental dynamism or turbulence (Martinez-Conesa et al., 2017). Competitive intensity is recognized as a key factor in environmental market conditions (Kmieciak & Michna, 2017), which can influence firm performance. When competitive intensity is high, performance expectations increase, and vice versa (Kura et al., 2020; Kmieciak & Michna, 2017; Maes & Sels, 2014). Therefore, it is crucial to examine the

mediating effect of competitive intensity on the link between KMO and organizational performance. Although there are arguments supporting a connection between KM and competitive intensity, there is a lack of complex empirical research in this area (Kura et al., 2020).

This study aims to make two primary contributions to the knowledge management literature. First, it investigates the potential to improve organizational performance through the knowledge management behavior of the firm by assessing the relationship between KMO and OP. Second, it aims to generate novel findings on the moderating effect of competitive intensity on the KMO-OP relationship. At a broader level, this study offers new insights into how organizations can strategically manage knowledge to achieve performance outcomes and growth. Thus, the primary objective of the study is to identify the relationship between KMO and OP. Furthermore, the study aims to explore the mediating effect of CI on the link between KMO and OP. Additionally, it seeks to investigate the direct relationships between KMO-CI, and CI-OP, to provide more robust understanding of how knowledge management and competitive pressures shapes organizational outcomes. The study is organized as follows to achieve these objectives. First, the theoretical background is developed, and the conceptual framework explaining the KMO-OP relationship is presented. Second, the study hypotheses are introduced, along with theoretical explanations for the expected outcomes. The third section outlines the methodology and presents the study's findings thereafter. Finally, the study discusses the empirical results and their managerial and theoretical implications, along with future research directions in this area.

Theoretical Background and Hypotheses

Knowledge Management

The literature identifies that KM is a strategic move to enhance the firm performance (Hussein et al., 2016; Darroch, 2005; Lee & Choi, 2003). As the business system converted from a resource-based to a knowledge-based system, tangible and physical resources are not concerned as critical resources to create business competitiveness and competitive advantage (Grant, 1996). Thus, business organizations need to adopt more knowledge resources from various sources and implement them to have more competitiveness over competitors (Hussein et al., 2016; Wong & Aspinwall, 2005). The basic purpose of managing the knowledge of a firm is to transform its knowledge resources into valuable commercial products. Researchers have commonly agreed that firms need to manage their knowledge efficiently and effectively to survive in the competitive marketplace and see the growth of the industry (Dayan et al., 2017). Understanding of how to manage organizational knowledge and its extended benefits is important for managers to address the crucial goals and objectives amidst the turbulent environment. KM practices are recognized as imperative for achieving organizational success as the constant and extreme competition, innovations, globalization, and market pressures (Zack et al., 2009).

Knowledge Management Orientation

The development of the concept of KM led to the emergence of the KMO concept as a new phenomenon in the KM literature, and KMO is to be believed a key component of strategic management. To effectively understand the role of the KM phenomenon in an organization, a vast number of constructs have been developed by researchers over time. Fundamentally, KMO refers to how a company's KM approaches effect company performance (Hussein et al., 2019). Early studies explained the KMO as the collection of information about the customers, competition, opportunities, and marketplace and sharing the knowledge within the organizational functions to make critical decisions (Darroch & McNaughton, 2003). Theoretically, KMO is a kind of attitude of organizational members who is being oriented towards the administration of the knowledge of the organization (Wang et al., 2008). KMO is an individual behavioral orientation in applying KM in an organization. Wang et al., in 2008 introduced the concept of KMO to understand the implementation of knowledge of an organization. They explained the KMO as an organizational behavior of organizing and implementing KM practices by managing the existing knowledge, sharing knowledge, absorbing knowledge and being receptive to new knowledge. On the contrary, Roxas and Chadee (2016) recognized the KMO as a construct to search, acquisition, assimilation, integration, and exploitation of externally available knowledge. Firms with good KMO behavior understand well where to look out for the identification of opportunities, measure the real value of opportunities, and are better equipped with strategies to grasp the value of such opportunities well (Farooq & Vij, 2018). In 2022, Jayampathi et al., introduced a more robust model to identify the KMO in organization including five dimensions; organizational memory, knowledge sharing, knowledge absorption, knowledge receptivity, and knowledge re-use.

Organizational Performance

The business performance indicates how far a business is managing well or what degree of success is achieved by delivering quality products and services to their customers while maximizing the stakeholders' wealth. Assessing the firm performance has been become an important strategic management practice by organizations. Many scholars have considered measuring firm performance as one of the prime objectives as it directly influences on performance improvements (Javed et al., 2020; Venkatraman & Ramanujam, 1986; Williams, 2018). The performance of an organization is considered a benchmark of growth and successful development (Jennings & Beaver, 1997). Measuring performance is a complex and critical task for an organization of its multidimensional behavior (Ismail et al., 2017). The degree to which an organization meet its stakeholder's expectations and seek growth and survival itself is referred to as performance (Farooq & Vij, 2018). The use of subjective measures to measure the firm performance is the common practice as owner-managers do not like to disclose their sensitive financial details to the outside, are unavailability for proper records, and do not allow for comparisons (Farooq & Vij, 2018). However, performance of a business organization can be assessed using variety of measurements such as financial and non-financial criteria (Perera & Perera, 2020). As per Santos and Brito, (2012), ROA, ROE, NI, ROI, EPS, and other quantifiable measures can be considered as financial measurements. The reputation of the company, goodwill, public image, employee satisfaction, and customer satisfaction was considered by Lumpkin and Dess (2001) as non-financial measurements to assess the business performance. Some have argued that subjective measures are preferred rather than objective measures (Harris, 2001). As many companies hesitate to provide financial

information, using objective measures to assess the OP is not prudent. Narver and Slater, 1990; Kohli et al., 1990; Deshpande et al., 1993; and Greenley, 1995 have used subjective measures to consider the OP while Ruekert, 1992; Au and Tse, 1995; Tse, 1998; Hult et al., 2001 used objective measures to assess the OP in their studies. Conversely, Jaworski and Kohli, 1993; Selnes et al., 1996; Harris, 2001 have used both subjective and objective measures of performance in their studies. Today, the most common, and popular practice among scholars to measure performance is relative performance. The relative performance depends on the competitor's reactions and their performance (Richard et al., 2007; Hsiao et al., 2011). If the major competitor in the industry is not known, the industry average can be used as a parameter to measure the relative performance (Wiklund & Shepherd, 2003; Berthon & Hulbert, 2004; Darroch, 2005). To mitigate the issues with performance measurements in an organization, the balance scorecard approach provides a feasible solution involving assessing the financial and non-financial measures of a firm. The balance scorecard system mainly focuses on four main perspectives of a business name, learning and growth of the business, internal process of the business, customer, and financial aspect of the business (Kaplan & Norton, 2004).

Competitive Intensity

Analysis of the effect of external environment on business activities considers as an important business development strategy. Modern environment, especially the external environment of businesses is extremely complex, dynamic and uncertain. Thus, it is paramount important to understand the effect of such complexities on the business strategy formulation processes. Indeed, the business performance achievements can be affected by the external environmental factors (Nyoman et al., 2020). External environmental factors like industrial structure, supplier pressure, competition, government rules and regulations, infrastructure and technical development, and economic factors may effect on business activities and performance in negative or positive forms (Nyoman et al., 2020). out of these external factors, the competitive intensity is considered as one of the most stressful and influential factors that effect on business performance. As Yasa et al. (2017) pointed out, higher competitive intensity may hinder the chances for better business performance and vice versa. As the competition is high, the expected sales growth, market share, number of units sold, number of transactions between firms could be decreased. Therefore, firms are struggling to find out suitable solutions investing thousands of moneys on various types of marketing propagandas including extensive promotional strategies (Ainin et al., 2015; Paniagua & Sapena, 2014; Parveen et al., 2014).

Businesses may not perform well in the absence of competition because customers are stuck with the organization's products and services (Kohil & Jarworski, 1990; Houston, 1986). If there is a greater possibility to higher level of competition, customers can make a choose in the marketplace. By contrast, customers will have many alternative opportunities to satisfy their wants and needs at the market when the competition is above average. Literature posited that organizations who have more market-oriented programs likely to enhance their customers and competitiveness. Those who are unable to successfully incorporate market-oriented strategies, reluctant to attract more customers and no powerful performance growth is expected (Kohil & Jarworski, 1993). Thus, competitive intensity was determined as a key determinant of increasing organizational performance.

Knowledge Management Orientation and Organizational Performance

Many studies have conducted on the effect of KM on OP in organizations and have recognized the effect of KM on OP (Farooq et al., 2021; Hussein, 2018; Kaya & Patton, 2011). KMO is an effective element for the improvement of OP and firm (Zaied et al., 2012; Wang et al., 2008). Scholars have sufficiently confirmed the direct or indirect influence of KMO on OP (Farooq & Vij, 2019; Lin, 2015; Yazhou & Jian, 2013; Wang et al., 2008; Darroch, 2005; Darroch & McNaughton, 2003). Among them, some studies have opined a significant and positive influence of KMO on OP in organizations (Hussein, 2018; Farooq et al., 2021; Yazhou & Jian, 2013; Kaya & Patton, 2011). Based on these arguments, this study also supposed that KMO of an organization would positively influence on the OP. Firms with good KMO capable to be innovative and introduce new products and services which facilitate to perform better with good financial performance than who are poor in KMO (Darroch & McNaughton, 2003). Contradictory findings of literature necessitate the emerge of more empirical findings to understand the influence of KMO on OP. An organization's capability to manage its knowledge resources and take actions to effectively utilize available knowledge is positively correlated with its performance. Factors such as market share, sales growth, customer satisfaction, and product and service quality are closely linked to how diligently firms manage their knowledge. Effective knowledge management ensures that firms can leverage their resources to address organizational challenges and drive performance improvements.

H1: Knowledge Management Orientation has a significant and positive effect on Organizational Performance.

Knowledge Management Orientation and Competitive Intensity

Several studies have highlighted that organizational capability in leveraging knowledge resources positively affects environmental dynamism, such as competitive intensity (Kmieciak & Michna, 2018; Martinez-Conesa et al., 2017). Competitive intensity, a key aspect of turbulent environments, is highly correlated with an organization's ability to manage its knowledge resources. Firms that have made significant investments in knowledge management practices are better positioned to respond to competitive market conditions (Kmieciak & Michna, 2018). As competitive intensity increases, firms can creatively and innovatively seize new opportunities by utilizing the knowledge resources available within the organization (Jayampathi et al., 2022). Even amidst turbulent environmental conditions, firms can successfully introduce strategic initiatives, such as launching innovative or low-cost products, by sharing knowledge, reusing existing knowledge, and acquiring new insights (Jayampathi et al., 2022; Kmieciak & Michna, 2018). Furthermore, when market competition is intense, firms must exert more effort in acquiring, transferring, and applying knowledge resources to stay competitive. Strong knowledge capabilities enable firms to navigate market volatility more effectively, making better use of knowledge resources (Kura et al., 2020; Cui et al., 2005). Overall, it can be concluded that effective use of knowledge management mechanisms enables firms to introduce profitable innovations in response to competitive intensity (Kura et al., 2020). At higher levels of competition, leveraging knowledge management capabilities allows firms to generate more innovative ideas, positioning them for success in a dynamic marketplace.

H2: Knowledge Management Orientation has a significant and positive effect on Competitive Intensity.

Competitive Intensity and Organizational Performance

The nature and characteristics of business organizations contribute to the heightened competition in their markets (Dorson & Nyamekye, 2020). A major challenge faced by firms is competition, particularly in terms of strategic choices and overall performance (Dorson & Nyamekye, 2020; Dorson et al., 2020). Scholars have documented that the intensity of competition significantly contributes to market hostility (Zahra & Covin, 1995). As Dorson and Nyamekye (2020) indicated, competitive intensity has a positive and direct effect on firm performance. Competitive intensity is defined as the fierce competition among organizations driven by the number of competitors and opportunities for growth (Auh & Menguc, 2005). In periods of low competition, the effect on performance is minimal, as firms may not focus as much on customer needs or market changes (Chan et al., 2012). Murray et al. (2011) emphasized that firms must respond to market dynamics and align their strategic planning with competitive trends to positively influence performance. Similarly, Banerjee et al. (2003) argued that collaborating with customers can help firms improve performance amidst competition. As competitive intensity increases, there is a greater likelihood of expanding market share and achieving superior profits (Andrevski et al., 2014). This is because fierce competition often drives technological advancements, allowing firms to identify new opportunities for competitive advantage (Bettis & Hitt, 1995; Kirzner, 1973). Andrevski et al. (2014) further noted that firms able to continuously recognize and exploit opportunities in the marketplace are more likely to develop new competitive advantages. Based on the above discussion, this study proposes that competitive intensity has a positive and significant effect on firm performance.

H3: Competitive Intensity has a significant and positive effect on Organizational Performance.

Knowledge Management Orientation, Competitive Intensity and Organizational performance

Firms continually seek new avenues to enhance their performance and deliver superior value to customers. In response to competitors' actions, firms must take proactive strategic measures to address such competitive pressures (Andrevski et al., 2014). Organizational performance often stems from competitive actions, each contributing to an advantage for the firm (Smith et al., 2001). One of the key strategic movements that organizations employ in the face of competitive intensity is managing their knowledge resources (Kmieciak & Michna, 2017; Andrevski et al., 2014). By effectively leveraging knowledge resources, firms can enhance their performance, successfully navigating fierce competitive environments. Knowledge management practices enable firms to counteract rivals with forceful, multifaceted, and strategic competitive moves, ultimately leading to greater market share and profitability. External environmental factors highlight the critical role that competitive intensity plays in driving organizational performance (Kura et al., 2020). Previous research has recognized competitive intensity as a crucial determinant of organizational success (Lahiri, 2013). For instance, Kmieciak and Michna (2017) have contributed to the literature by examining the impact of competitive intensity on knowledge management, innovativeness, and performance in SMEs. Their empirical findings suggest that knowledge management practices significantly

enhance firm performance when competitive intensity is high. Moreover, they identified a positive correlation between knowledge management practices and firm performance, especially under conditions of intense competition. While past studies have acknowledged the importance of discussing the mediating effect of external business environments on the relationship between knowledge management capability and business performance (Kmieciak & Michna, 2017), there has been limited attention to the utilization of knowledge resources in turbulent market environments, including environmental dynamism and technological turbulence (Kura et al., 2020). In summary, firms can achieve market share growth and profitability during dynamic competitive environments when their knowledge resources are highly adaptive. By frequently introducing new strategies in response to competitive actions, firms can gain multiple advantages. Thus, it can be expected that competitive intensity mediates the relationship between knowledge management orientation (KMO) and firm performance.

H4: Competitive Intensity mediates the relationship between Knowledge Management Orientation and Organizational Performance.

Material and Methods

The research instrument was validated in three stages. First, three industry experts were contacted and a rigorous discussion was conducted to get some insights regarding the study variables and their practical implications in the real world. Second, the drafted questionnaire was sent to three academics and three industry experts to get their insights and see the academic fitness of the questionnaire. The main purpose of the second pretest was to see the face and content validity of the research instrument. Third, the questionnaire was sent to two executives from two listed companies who intended to get feedback on the questionnaire filling mechanism, understandability of the items, and determine the time required to complete the survey. The full-scale survey was done with the listed companies of Sri Lanka. There were 295 companies listed at the Colombo Stock Exchange (CSE) as of 13th August 2023. Contemplating the census survey method, all companies listed at the CSE were considered for the study. Any top-level, middle-level or lower-level manager from each company was asked to provide information to the survey by filling the Google form which had sent to them through email. The study was supposed to get quality of data and, thus, it was considered that managerial-level employees might have enough knowledge regarding the different knowledge behaviors, performance facet, and organizational competitive intensity. With multiple reminders, it was able to get 254 responses, and all responses received were considered for the data analysis.

Measures

The research problem was identified through an extensive literature review. Thus, study variables and items to assess each variable were extracted from different literature sources. Each item was measured using a five-point Likert scale questions ranging from 1-strongly disagree to 5-strongly agree. KMO was measured using a new model proposed by Jayampathi et al. in 2022. This model is an extension of the model presented by the Wang et al. in 2008. The new model considers the future uses of knowledge resources which was not given full of attention in previous models. Eventually, KMO was measured using five dimensions; Organizational Memory (OM), Knowledge Sharing (KS), Knowledge Receptivity (KR),

Knowledge Absorption (KA), and Knowledge Re-use (KRe). Altogether 35 items were used to assess the KMO including 8 items for OM, 8 items for KS, 5 items for KR, 7 items for KA, 7 items for KRe.

Organizational performance was measured using subjective performance measurements. In practice, it's difficult to collect objective performance data from business organizations as they reluctant to disclose profitability details etc. Also, due to the worse economic situation in Sri Lanka during the past five years (Easter Sunday attack and Covid-19), adhering to obejetive performance indicators was not advisable. The subjective performance indicators were adapted from the Kaplan and Norton's (1992) Balance Score Card scale. Thus, organizational performance was measured using 08 items covering market share, sales, employment opportunities, product/service quality, customer satisfaction, and employee satisfaction. The competitive intensity was measured based on the scale developed by Jaworski and Kohli in 1993. Reliability measures of the original model of the CI was reported 0.81 of Cronbach's Alpha. It consisted with six items to assess the organizational competitive intensity in different angles. The current study was adopted the same model presented by Jaworski and Kohli with modifications as to meet the standards in Sri Lankan business context. The operationalization of the study variables is summarized in the table 1.

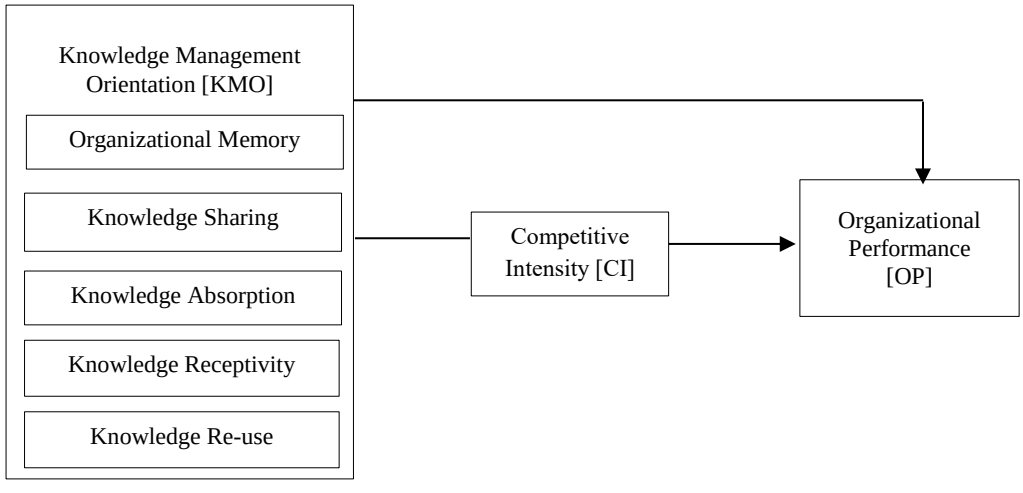

Figure1. Conceptual Framework

Table 1: Operationalization

Variable	Dimensions	Working definition	Source
Knowledge Management Orientation (KMO)	Organizational memory (06 items)	An ability to acquire, organize, store, manage, and communicate existing knowledge resources of the firm.	Wang et al., 2009 (α=0.87)
	Knowledge sharing (05 items)	An ability to share organizational knowledge between employees, and teams in the organization	Wang et al., 2009 (α=0.87)
	Knowledge absorption (05 items)	An ability of a firm to adapt new knowledge from outside of the organization	Wang et al., 2009 (α=0.84)
	Knowledge receptivity (06 items)	An ability to identify new knowledge from inside of the organization and evaluate the internal acceptance and integration.	Wang et al., 2009 (α=0.78)
	Knowledge re-use (06 items)	An ability of the firm to locate, access, and use knowledge and information stored in the formal and informal databases for current and future purposes	Gonzalez et al., 2017; Khedhaouria & Jamal, 2015; Majchrzak et al., 2013
Competitive Intensity	(06 items)	The extent of rivalry among firms in the market place which leading for innovation, differentiation and strategic adaptations.	Jaworski and Kohli (1993) (α=0.81)
Organizational Performance (OP)	(04 items)	The level of growth and success achieved by a firm.	Kaplan and Norton (1992)

Data Analysis

Measurement Model Assessment

To assess the measurement model, reliability, discriminant validity, and convergent validity were evaluated. Outer loadings were assessed to evaluate how well the observed variables reflect their respective latent constructs. Table 2 given shows the outer loadings of the measurement model and, ensures that the indicators used in the measurement model are reliable and contribute meaningfully to the latent constructs, enhancing both the quality and validity of the PLS model. Cronbach's alpha and composite reliability were calculated to assess the reliability of the dataset, and the respective results are presented in Table 2. The measurement model is considered reliable if both Cronbach's alpha and composite reliability values exceed 0.7 for all latent variables (Hair et al., 2019). Convergent validity was tested (table 2) to ensure that the items used to measure the latent variables were closely related, so that the items collectively measured the same concept. The threshold for convergent validity was met if the average variance extracted (AVE) for each latent variable exceeded 0.5 (Hair et al., 2019). The corresponding AVE results are shown in Table 2 confirms that convergent validity is established.

Table 2: Outer loadings, reliability and convergent validity

Variable/Dimension	Item Code	Outer Loadings	Cronbach's Alpha	Composite Reliability	AVE	VIF
Knowledge Management Orientation (KMO)			0.967	0.968	0.534	
Organizational Memory (OM)	OM1	0.852	0.894	0.896	0.654	3.278
	OM2	0.862				3.694
	OM3	0.801				2.347
	OM4	0.788				2.436
	OM5	0.798				2.870
	OM6	0.747				2.157
Knowledge Sharing (KS)	KS1	0.847	0.873	0.874	0.665	2.450
	KS2	0.869				3.133
	KS3	0.820				2.358
	KS4	0.755				1.689
	KS5	0.781				1.750
Knowledge Absorption (KA)	KA1	0.787	0.869	0.872	0.657	1.802
	KA2	0.837				2.168
	KA3	0.855				2.353
	KA4	0.847				1.745
	KA5	0.831				2.092
Knowledge Receptivity (KR)	KR1	0.823	0.910	0.911	0.690	2.249
	KR2	0.813				2.177
	KR3	0.835				2.660
	KR4	0.835				2.629

	KR5	0.847				2.968
	KR6	0.831				3.279
Knowledge Re-use	KRe1	0.777				1.920
(KRe)	KRe2	0.805				2.083
	KRe3	0.842	0.898	0.898	0.662	2.399
	KRe4	0.810				2.166
	KRe5	0.820				2.463
	KRe6	0.817				2.382
Competitive Intensity	CI1	0.788				1.992
(CI)	CI2	0.846				2.416
	CI3	0.837	0.942	0.943	0.593	2.221
	CI4	0.848				2.565
	CI5	0.791				2.101
	CI6	0.821				2.382
Organizational	OP1	0.781				2.950
Performance	OP2	0.818	0.878	0.883	0.622	3.401
(OP)	OP3	0.819				2.480
	OP4	0.758				2.259

Furthermore, multicollinearity was assessed to determine whether there was a high correlation between two or more independent variables (Sekaran & Bougie, 2010). The absence of multicollinearity is confirmed if the variance inflation factor (VIF) values are below 5 (Hair et al., 2019). As the VIF values in this study were below (table 2) the recommended threshold, the absence of multicollinearity was confirmed. The table 3 shows that the AVE extracted for each construct/variable is higher than the required level of 0.5 (50%). Fornell & Larcker (1981) highlighted that each construct has a capability to explain more than half of variance in measuring items on average. Thus, the convergent validity is established.

Table 3: Discriminant validity - Fornell and Larcker criterion

Dimension	OM	KS	KA	KR	KRe	CI	OP
OM	0.861						
KS	0.634	0.811					
KA	0.636	0.805	0.831				
KR	0.717	0.719	0.777	0.813			
KRe	0.638	0.797	0.784	0.743	0.815		
CI	0.608	0.697	0.733	0.700	0.782	0.809	
OP	0.798	0.652	0.650	0.689	0.601	0.590	0.824

Discriminant validity was assessed using several criteria: cross-loading values, where each item should load highest on its respective construct (Hair et al., 2019); the Fornell and Larcker criterion, where the square root of the AVE for each construct should be greater than its highest correlation with other constructs (Fornell & Larcker, 1981); and the Heterotrait-Monotrait (HTMT) ratio, where the HTMT values for each construct should be less than 0.9

(Hair et al., 2019). The results in Tables 3, 4, and 5 confirm that all discriminant validity criteria were satisfied.

Table 4: Heterotrait-Monotrait Ratio (HTMT)

Dimension	KA	KR	KRe	KS
KA				
KR	0.894			
KRe	0.810	0.856		
KS	0.895	0.878	0.839	
OM	0.785	0.810	0.781	0.885

The table 4 depicts he HTMT values generated from the measurement model PLS-algorithm. The table illustrates that all HTMT values are less than 0.9 which indicates an acceptable level of discriminant validity. Based on the HTMT values given in the table 4, the discriminant validity of the measurement model is established.

Table 5: Crossloadings

Dimension	OM	KS	KA	KR	KRe	CI	OP
OM1	0.820						
OM2	0.834						
OM3	0.779						
OM4	0.763						
OM5	0.778						
OM6	0.768						
KS1		0.805					
KS2		0.823					
KS3		0.811					
KS4		0.742					
KS5		0.759					
KA1			0.788				
KA2			0.838				
KA3			0.854				
KA4			0.758				
KA5			0.812				
KR1				0.808			
KR2				0.806			
KR3				0.819			
KR4				0.836			
KR5				0.766			
KR6				0.841			
KRe1					0.768		
KRe2					0.794		
KRe3					0.830		

KRe4	0.804		
KRe5	0.822		
KRe6	0.821		
CI1		0.851	
CI2		0.801	
CI3		0.824	
CI4		0.843	
CI5		0.812	
CI6		0.834	
OP1			0.782
OP2			0.819
OP3			0.819
OP4			0.758

To secure the discriminant validity, an item-level discriminant validity can be examined through cross-loading analysis (Chin, 1998). Each indicator should be reported more than 0.70 of loading values and should be greater than all its cross-loadings (Hair et al., 2016). The table 5 given here shows that loadings for each item are greater than 0.70. Thus, it can be concluded that the discriminant validity is established.

Structural Model Assessment

The measurement model assessment was adequate and acceptable, having undergone multiple validation steps. The structural model consists of endogenous (KMO) and exogenous (OA and OP) constructs. To assess the structural model in PLS-SEM, several standard assessment criteria recommended by scholars were applied. As proposed by Hair et al. (2019), the current study used multiple assessments, including the coefficient of determination (R^2), the blindfolding-based cross-validated redundancy measure (Q^2), and the statistical significance and relevance of the path coefficients.

It is recommended that Q^2 values should be greater than zero for specific exogenous variables to demonstrate predictive accuracy for that construct in the structural model. Typically, Q^2 values greater than 0 indicate a small effect, values greater than 0.25 indicate a medium effect, and values greater than 0.5 indicate a large predictive effect in the PLS path model (Hair et al., 2019). Table 5 shows that all Q^2 values are greater than 0.4, indicating medium (less than 0.5) to strong (greater than 0.5) predictive relevance in the PLS model.

The R^2 value ranges between 0 and 1, where higher values indicate greater explanatory power (Hair et al., 2019). Values of 0.75 are considered substantial, 0.50 are moderate, and 0.25 are weak in terms of predictive power (Hair et al., 2019). As shown in Table 5, 53.4% of the variance in OP was explained by KMO and CI. Additionally, the model explains 80.2% of the variance in CI. All results exceed the recommended threshold of 50%, with values ranging from 53.4% to 84.7%, indicating moderate to substantial explanatory significance.

Table 6: Predictive relevance and coefficient of determination

Endogenous Variables	Q^2 predict	R^2
OM	0.831	0.764
KS	0.791	0.831
KA	0.848	0.791
KR	0.782	0.846
KRe	0.831	0.782
CI	0.455	0.802
OP	0.489	0.534

Note: Q^2 predict: Predictive relevance; R^2: Coefficient of determination

Hypothesis 1 stated that KMO impacts OP. The derived results denoted that this hypothesized effect of KMO on OP was positive and significant ($\beta = 0.700$, $p < 0.05$), as such H1 is supported. Hypothesis 2 expressed effect of KMO on CI. As per the results, KMO positively and significantly impacted on CI ($\beta = 0.769$, $p < 0.05$), whilst supporting H2. Hypothesis 3, which hypothesized that CI impacts on OP, was supported confirming a significant positive effect ($\beta = 0.673$, $p < 0.05$). Hypothesis 4 expressed the indirect effect of CI between KMO and OP. The indirect effect (H4) marked a path coefficient of 0.365 indicating a p-value of 0.068 which is insignificant, hence the hypothesized mediation was not supported.

Table 7: Path coefficients (β) and T-statistics

No	Effect	Coefficient	T statistics	P value	Result
H_1	KMO->OP	0.700	14.811	0.000	Supported
H_2	KMO->CI	0.769	11.265	0.000	Supported
H_3	CI->OP	0.673	10.963	0.000	Supported
H_4	KMO-> CI -> OP	0.365	2.568	0.068	Not Supported

Results and Discussion

The overall purpose of this study was to examine the effect of competitive intensity (CI) on the relationship between knowledge management orientation (KMO) and organizational performance (OP). To achieve this, the study addressed four research objectives. The first objective was to identify the effect of KMO on OP, which was tested in hypothesis 1. The findings confirm that KMO positively and significantly effect on OP, indicating that higher KMO levels in organizations lead to better performance. These results align with previous studies, which have demonstrated that the effective implementation of KMO practices enhances organizational performance, particularly in business organizations across both Western and Asian countries (Wang et al., 2008; Farooq & Vij, 2018; Latilla et al., 2018; Ullah et al., 2019; Kruger & Johnson, 2011; Byukusenge & Munene, 2017). The second objective was to explore the effect of KMO on CI, which was addressed in hypothesis 2. The study's findings reveal a significant and positive relationship between KMO and CI, suggesting that organizations with higher KMO capabilities are better equipped to handle fierce

competition in the marketplace. These results are consistent with prior research, which has also confirmed the positive influence of KMO on environmental dynamics (Kmieciak & Michna, 2018; Martinez-Conesa et al., 2017). The third objective focused on the effect of CI on OP, hypothesized in hypothesis 3. The findings indicate a positive and significant relationship between CI and OP. As competitive intensity increases, organizations are more likely to expand their market share and achieve superior profits (Andrevski et al., 2014). Fierce competition often drives technological advancements, enabling firms to identify new opportunities for competitive advantage (Bettis & Hitt, 1995). The fourth objective was to investigate the mediating effect of CI on the relationship between KMO and OP, which was tested in hypothesis 4. The results show that CI does not have a significant mediating effect on the link between KMO and OP. This finding contradicts some previous studies, where scholars have reported partial mediation by CI on the relationship between KMO and OP (Richard et al., 2007; Ferrier et al., 1999; D. Miller & Chen, 1996; Young et al., 1996).

Conclusions

This study offers several contributions to the existing academic literature. It responds to previous research on knowledge management (KM) in business organizations (Wang et al., 2008; 2009) by contributing quantitative models related to knowledge management orientation (KMO) and organizational performance (OP). Although much of the literature on KMO and competitive intensity focuses on SMEs, few studies have examined large-scale organizations (Jayampathi et al., 2021; 2022). This study confirms that KMO is a multidimensional construct comprising organizational memory, knowledge sharing, knowledge absorption, knowledge receptivity, and knowledge re-use.

One of the key theoretical insights of this study is that not all five dimensions of KMO are directly related to organizational performance. Instead, these dimensions must be collectively developed to form a strong KMO, which then leads to a significant and positive association between KMO and OP. Additionally, this research provides a theoretical understanding of how competitive intensity influences organizational activities. To the best of the researcher's knowledge, this is the first study to statistically verify the relationship between KMO, competitive intensity, and performance in Sri Lanka. While some studies have empirically examined the direct impact of KMO on competitive intensity (Kmieciak & Michna, 2018), this study suggests that competitive intensity does not have an indirect effect between KMO and OP. Regardless of whether competition in the marketplace is high or low, an organization's KMO capabilities positively impact on OP. Future research in strategic sensemaking should explore this combination; otherwise, the results might be underestimated (Jayampathi et al., 2022; Thomas et al., 1993).

This study makes a significant theoretical contribution by explaining and validating the knowledge-based view (KBV) theory, which posits that organizations can enhance their dynamic capabilities through strategic resources to improve performance outcomes. Furthermore, this study supports the KBV theory by explaining why some organizations outperform others under similar conditions. It suggests that certain organizations are better aligned with organizational dynamics and knowledge resources than their competitors do.

The findings also provide valuable insights for key stakeholders in the manufacturing and service industries, such as decision-makers, policymakers, and operators. These insights can help them understand the nature of knowledge management orientation and its implementation within their organizations, prompting them to reconsider how they leverage knowledge assets and resources to boost efficiency, increase performance, and secure a competitive advantage.

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