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How Do Quality Culture and Human Capital Influence Innovation Capability in SMEs? Examining the Mediating Role of Knowledge Management Capability

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KOBİ'lerde Kalite Kültürü ve Beşerî Sermaye İnovasyon Yeteneğini Nasıl Etkiler? Bilgi Yönetimi Yeteneğinin Aracılık Rolünün İncelenmesi

Abstract

Small and medium-sized enterprises (SMEs) are the main components of emerging economies. Their competitive powers directly influence the economy. One of the competition tools for SMEs is innovation capability. This paper investigates the effects of quality culture and human capital on innovation capability and the mediating role of knowledge management capability on these relationships in SMEs. Data were collected from 227 SMEs in Istanbul via an online survey form and analysed with structural equation modelling. Results revealed that quality culture and human capital positively affect innovation capability, and knowledge management capability mediates these associations.

Keywords : Quality Culture, Human Capital, Innovation Capability, SME.

JEL Classification Codes : M10, M14, M19.

Öz

Küçük ve orta büyüklükteki işletmeler (KOBİ) gelişmekte olan ekonomilerin temel bileşenleridir. Onların rekabet güçleri ekonomiyi doğrudan etkilemektedir. KOBİ'lerin rekabet araçlarından biri de inovasyon yeteneğidir. Bu çalışma KOBİ'lerde kalite kültürü ve beşerî sermayenin inovasyon yeteneği üzerindeki etkilerini ve bilgi yönetimi yeteneğinin bu ilişkilerdeki aracılık rolünü araştırmayı amaçlamaktadır. Çalışmanın verileri İstanbul'da yer alan 227 KOBİ'den çevrimiçi anket yoluyla toplanmış ve yapısal eşitlik modellemesi kullanılarak analiz edilmiştir. Yürütülen Analiz bulguları kalite kültürü ve beşerî sermayenin inovasyon yeteneğini olumlu etkilediğini ve bilgi yönetimi yeteneğinin bu ilişkiler üzerinde aracılık rolü olduğunu ortaya çıkarmıştır.

Anahtar Sözcükler : Kalite Kültürü, Beşerî Sermaye, İnovasyon Yeteneği, KOBİ.

1. Introduction

Small and medium-sized enterprises are often regarded as the driving forces of modern economies today (O'Cass & Sok, 2014). Globalisation and rapid advancement of technology have increased competitive pressure on small and medium-sized enterprises (SMEs). To remain competitive in this dynamic environment, SMEs must invest in innovation activities. However, scholars widely accept that innovation is an expensive and time-consuming investment, and SME(s) have limited resources compared to their big counterparts. Firms must be successful when they embark on innovation activities. The ability to create and implement innovation, referred to as innovation capability, plays a critical role in this process (Konsti-Laakso et al., 2012; Saunila, 2020).

Innovation capability has attracted significant attention from researchers in recent years due to its central role in successful innovation. A considerable body of theoretical and empirical studies has explored the antecedents of innovation capability in SMEs. For instance, Saunila (2020) systematically reviews the relevant literature, highlighting the determinants of SMEs' innovation capability. Muskat et al. (2021) examined the relationship between culture factors, particularly time orientation, and innovation capability. Zhang and Merchant (2020) focused on the role of institutions and organisational proficiencies in shaping innovation capability.

Although there is a growing body of literature on the innovation capability of SMEs, research on the relationships among culture, human capital and innovation capabilities of SMEs remains limited. However, culture and human capital are important factors in shaping a firm's capabilities (Subramaniam & Youndt, 2005). From this perspective, further research is needed to explore how culture and human capital may affect the innovation capability of SMEs.

Building on the arguments above, this paper examines the effects of quality culture and human capital on innovation capability and whether knowledge management capability mediates these relationships in SMEs. The present study contributes to the literature in two ways: First, it investigates how quality culture and human capital influence the innovation capabilities of SMEs. Second, it highlights the mediating role of knowledge management capability in these associations.

2. Literature Review and Hypotheses

2.1. Quality Culture

Organisational culture refers to an organisation's norms, beliefs and other aspects that shape its members' attitudes and behaviours (Schein, 1992). It influences core values, mission, vision and main organisational structure, providing the foundation for the organisation's activities and policies (Schein, 1992; Cameron & Quinn, 2011).

Quality culture is a specific organisational culture that emphasises quality across all organisational processes and activities (Gümüş, 2023). Quality culture includes core values such as focusing on customer needs and expectations, empowering and involving employees in decision-making processes, fostering open communication, making decisions based on facts and/or data, promoting continuous improvement and teamwork, managing processes effectively, and recognising and rewarding behaviours that align with the organisation's quality goals (Malhi, 2013).

Quality culture is very important for SMEs as it directly affects the business's overall performance, competitiveness and customer satisfaction. SMEs that embrace quality culture can offer higher-quality products and services than their competitors, providing them with a competitive advantage in the marketplace. Moreover, a focus on quality fosters innovative thinking and process improvements in SMEs. In conclusion, quality culture is critical to SMEs' sustainable growth and development. Embedding this culture improves product or service quality, business processes, employee engagement and overall business performance (Kureshi et al., 2010; Malá et al., 2023; Tejaningrum, 2016).

2.2. Human Capital

Human capital is one of the components of intellectual capital and is defined as the accumulation of employees' skills, competencies, knowledge and experiences (Kannan & Aulbur, 2004). From another perspective, Edvinsson and Sullivan (1996) argue that a firm's intellectual capital consists of two components: human resources and structural capital. In this context, human resources refer to "the collective capabilities of employees to solve customer problems". (Edvinsson & Sullivan, 1996: 358).

Human capital plays a crucial role in value creation and extraction within firms as a component of intellectual capital. These processes involve creating new knowledge and leveraging it to achieve strategic goals (Sullivan, 1999). With the rapid development of information and communication technologies and intensified competition among firms, intellectual capital has become a key element of a firm's strategic resources (Pedrini, 2007).

Human capital is positively associated with innovation and enhanced firm performance (Alkhatib & Valeri, 2024). It also improves knowledge absorptive capacity, defined as "organisational routines and processes through which businesses acquire, integrate, convert, and apply knowledge to generate value and gain an advantage in the marketplace" (Truong & Nguyen, 2024: 66).

Human capital is strategically vital for SMEs as employees' knowledge, skills, and competencies directly contribute to the enterprise's success. Highly qualified employees increase productivity by executing business processes more efficiently, resulting in faster and more accurate task completion and optimal resource utilisation. SMEs with robust human capital can develop innovative ideas and integrate these ideas into business operations. Employees' expertise enables SMEs to create new products and quickly respond

to market trends. In particular, skilled employees strengthen the competitive advantage of SMEs, allowing them to remain flexible and outperform competitors, especially in specialised sectors. Human capital also helps SMEs swiftly adapt to changing market conditions and emerging technologies. Educated and competent employees are more adaptable to changes and quickly adjust to new business practices. Furthermore, human capital plays a vital role in achieving the long-term organisational goals (Onkelinx et al., 2016; Ruzzier et al., 2007; El Shoubaki et al., 2020).

2.3. Knowledge Management Capability

Knowledge is a strategic resource for firms to gain a competitive advantage. According to the knowledge-based view, knowledge is scarce, valuable, and hard to imitate, making it a key factor in competition (Grant, 1996). To effectively leverage this resource, firms must implement knowledge management activities, including creation, dissemination, sharing, and application (Alavi & Leidner, 2001).

Knowledge management offers some benefits to firms. Effective knowledge management enhances decision-making processes, increases business operations' efficiency and accuracy, and facilitates knowledge integration into innovation efforts (Jarrar, 2002). Additionally, it supports the development of organisational memory, accelerates the problem-solving process, and helps disseminate best practices across the organisation (Dalkir, 2005: 35).

Knowledge management capability refers to a firm's set of abilities, talent, technology and culture to implement knowledge management activities (Hashem et al., 2024). Since knowledge is a strategic resource for firms to compete, knowledge management capability becomes a crucial asset in dynamic and competitive environments (Aboelmaged & Hashem, 2019).

Knowledge management capability is critical for SMEs, as knowledge is one of the most valuable resources for achieving competitive advantage in today's business environment. The knowledge management capability of SMEs directly impacts decision-making processes, productivity, innovation capacity and overall business performance. Effective knowledge management enables SMEs to analyse and optimise their processes better. Timely access to accurate information allows processes to run more efficiently, reducing operational costs. With quick access to relevant and up-to-date information, SMEs can make more precise and timely decisions, which is crucial for businesses to respond in highly competitive markets. Consequently, knowledge management capability equips SMEs to make strategic decisions, improve operational processes and sustain their competitive advantage. By developing this capability, SMEs can foster long-term success, enhancing internal processes and customer relationships (Batista et al., 2019; Mata et al., 2024; Yusof et al., 2024).

2.4. Innovation Capability

Innovation capability is one of the organisational capabilities from which firms create value in dynamic environments (Sahoo, 2019). To enhance organisational performance, firms allocate a significant amount of resources to develop their innovation capabilities as successful innovations stem from higher levels of this capability (Rajapathirana & Hui, 2018; Mendoza-Silva, 2021).

Several studies have examined the factors that influence a firm's innovation capability. A recent systematic review identified intra-organisational, inter-organisational, environmental and knowledge determinants of innovation capability (Mendoza-Silva, 2021). For instance, organisational culture and empowerment activities have been shown to affect the innovation capabilities of SMEs (Çakar & Ertürk, 2010). Quality management tools and practices, such as continuous improvement and cross-functional cooperation, have also been reported as key antecedents of innovation capability (Sahoo, 2019).

Innovation capability is critical for SMEs as adapting to changing market conditions and customer expectations is essential for sustainable growth. Innovation capability of SMEs refers to their capacity to generate new ideas, improve processes and innovate products or services. SMEs with strong innovation capability can differentiate themselves from competitors and establish a unique market position. The ability to offer new products and services enhances their competitive advantage. Furthermore, innovation capability enables SMEs to explore new markets and expand their product and service portfolios, which provides opportunities to reach new customer segments (Bahta et al., 2020; Jalil et al., 2021; Saunila, 2014).

2.5. Hypothesis Development

A quality culture emphasises continuous learning and improvement (Malhi, 2013). In firms with a quality-oriented culture, experimenting with new ideas and learning from mistakes are tolerated and promoted. Therefore, claiming that a culture focused on quality, change, and improvement will motivate employees to generate and implement novel ideas is reasonable. This, in turn, will enhance the firm's overall innovation capability. Based on these arguments, H_1 was proposed:

H_1: Quality culture positively influences innovation capability.

A firm's Human capital comprises skills, competencies, knowledge and experience of its employees. Higher levels of human capital suggest that employees are skilled, experienced and possess expert knowledge in their respective fields. As a result, these employees are more likely to generate and implement novel ideas in products and processes, ultimately enhancing the firm's innovation capability. Several studies have identified that human capital is a significant antecedent of the innovation capability of firms. For instance, Goodarzi et al. (2015) revealed that firms leverage human capital to boost innovation capability in dynamic environments. Similarly, Wang et al. (2008) found a positive

relationship between human capital and innovation capability in banking sector. Based on these arguments, H_2 was articulated:

H_2: Human capital positively influences innovation capability.

Quality culture encourages employees to pursue continuous improvement (Malhi, 2013). In a firm with a strong quality culture, employees will more likely feel empowered to create new knowledge, share it with colleagues, and implement it in products and processes. This, in turn, will influence the overall management of knowledge within the firm, as employees will play a key role in knowledge creation, dissemination, sharing and application. Consequently, the firm's knowledge management capability will likely increase. Although direct scientific evidence on this relationship is limited, studies have highlighted the importance of culture in knowledge management. For instance, King (2007) showed that culture significantly impacts a firm's ability to implement knowledge management successfully. Similarly, Stock et al. (2010) demonstrated that culture affects the success of hospital knowledge management activities. Based on these arguments, H_3 was proposed:

H_3: Quality culture positively influences knowledge management capability.

Firms with high human capital are better positioned to create, disseminate, share and apply knowledge than firms with lower human capital levels. This is because skilled, competent and knowledgeable employees can more easily participate in these knowledge management processes. Hence, it is reasonable to argue that higher levels of human capital enhance a firm's capability to manage knowledge. Studies that reveal this relationship directly are scarce. Seleim and Khalil (2011) found a positive correlation between human capital and successful knowledge management implementations. In another study, Trivedi and Srivastava (2024) argued that human resource practices that enhance human capital positively influence the succession of knowledge management activities. Based on these arguments, H_4 was articulated:

H_4: Human capital positively influences knowledge management capability.

When firms possess high knowledge management capability, they can efficiently create, disseminate, share and apply knowledge. This process fosters the creation and implementation of novel ideas on products and processes, as successful innovative activities depend heavily on knowledge and a firm's ability to leverage it effectively. Hence, it can be expected that knowledge management capability is positively associated with innovation capability in firms. Previous studies provide support for this association. For instance, Rehman et al. (2022) argued that firms capable of successfully implementing knowledge management activities are more innovative. Similarly, Demirel and Eraslan (2023) found a positive relationship between knowledge management processes and innovation capability. Sun et al. (2020) reported that knowledge management and innovation capability are positively correlated, highlighting that firms that institutionalise knowledge practices gain a competitive edge in innovation. Based on these arguments, H_5 was proposed:

H_5: Knowledge management capability positively influences innovation capability.

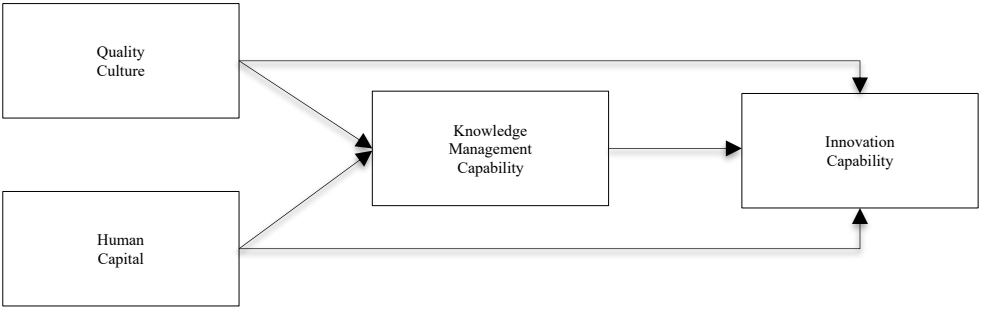
To the best of the authors' knowledge, there is no empirical evidence about the mediating role of knowledge management capability on the relationships of quality culture-innovation capability and human capital-innovation capability. Based on the theoretical arguments for the first five hypotheses, it can be expected that quality culture and human capital are positively associated with innovation capability through knowledge management capability. Thus, H_6 and H_7 were articulated:

H_6: Knowledge management capability mediates the relationship between quality culture and innovation capability.

H_7: Knowledge management capability mediates the relationship between human capital and innovation capability.

The conceptual model of the study was presented in Figure 1 below:

Figure: 1
Conceptual Model



3. Data and Methodology

3.1. Data Collection Procedure and Sample

Data from this study were collected from the small and medium-sized enterprises operating in various sectors and located in Istanbul, Türkiye, via an online survey form. During the first phase of the data collection process, ethical approval from Duzce University Research and Ethics Commission was granted (Decision No: 2024/254). Then, an online questionnaire form was created at Google Forms. The first part of the questionnaire included information about the research, stressing that the participation is voluntary, and the data will not be shared with third parties. The second part of the survey form included survey items. The hyperlink to the questionnaire form was sent to the e-mails of top managers of SMEs. Of 2000 e-mails sent, 238 surveys were returned, and after excluding forms with missing answers, 227 questionnaires constituted the sample.

3.2. Measures

All scales were initially developed in English and thus translated into Turkish by following the procedure recommended by Brislin (1980). A pilot study was conducted after the translation process, and the results revealed that participants easily understood all items. A five-point Likert scale was used for each construct (ranging from 1 = strongly disagree to 5 = strongly agree) except demographics.

3.2.1. Quality Culture Scale

To measure the quality culture of participant firms, the authors adapted a four-item quality culture scale, which was initially developed by Wu (2015). The scale was unidimensional and included items such as "We believe that organisations should be proactive in anticipating customers' needs" and "We believe that customer satisfaction is critical for our company's survival". The Cronbach's alpha value of this scale was 0,90.

3.2.2. Human Capital Scale

The authors adapted the three-item human capital scale, which Alrowwad et al. (2020) used to measure the human capital levels of participant SMEs. The original scale was designed to measure all components of intellectual capital (human capital, structural capital, relational capital), but in this study, only the human capital dimension was used. The sample item was "Our company employees are highly skilled". The Cronbach alpha for this scale was 0,67.

3.2.3. Knowledge Management Capability Scale

A nine-item knowledge management capability scale, which was used by Hashem et al. (2024), was adapted to measure the knowledge management capabilities of the participant firms. Sample items were "Our firm generates new knowledge for application" and "My firm designs activities to facilitate knowledge sharing". The alpha score of this scale was 0,96.

3.2.4. Innovation Capability Scale

To determine the innovation capability levels of the participant firms, the authors adapted the innovation capability scale developed initially by Calantone et al. (2002). The scale included six items. Sample items were "Our company frequently tries out new ideas" and "Our company is creative in its methods of operation". Cronbach's alpha value on this scale was 0,89.

4. Results

4.1. Validity Analysis

An explanatory factor analysis (EFA) was performed in the first phase of the validity analysis. Principal component analysis with varimax rotation was preferred, and factors with eigenvalues higher than one were held in the scale. Results of the EFA were shown in Table 1.

Table: 1
Results of EFA

Item	QC	HC	KMC	IC	Analysis Properties
QC1	0,681				
QC2	0,860				
QC3	0,748				
HC1		0,842			
HC2		0,889			
HC3		0,852			
KMC2			0,562		
KMC3			0,677		
KMC4			0,774		KMO = 0,868
KMC5			0,784		Bartlett' Test = 0,000
KMC6			0,756		Variance Explained = %62,28
KMC7			0,658		
KMC8			0,676		
KMC9			0,700		
IC1				0,721	
IC2				0,505	
IC3				0,617	
IC4				0,699	
IC6				0,685	

Note: QC = Quality culture; HC = Human capital; KMC = Knowledge management capability; IC = Innovation capability.

According to the findings, KMO value was above 0,70 and the significance value of Barlett's test of sphericity was below 0,05, meaning that explanatory factor analysis (EFA) can be applied to the dataset. EFA yielded four distinct factors with eigenvalues bigger than 1, and %62,28 of the total variance was explained. Three items were excluded from the scale as their factor loadings were below the 0,50 threshold. Remaining items have factor loadings ranging from 0,505 to 0,889.

A confirmatory factor analysis was performed in the second phase of the validity analysis. The measurement model, which includes four constructs (quality culture, human capital, knowledge management capability, and innovation capability) and nineteen items, fits the data well (CMIN/df = 1,758; CFI = 0,944; TLI = 0,934; RMSEA = 0,05; SRMR = 0,05).

4.2. Findings of the Hypothesis Testing

Before testing the hypotheses, a correlation analysis revealed the linear relationships among variables. The findings of this analysis are given in Table 2.

Table: 2
Descriptive Statistics and Correlations

Variable	Mean	SD	1	2	3	4
1) QC	4,42	0,46	0,72[α]			
2) HC	3,97	0,70	0,23**	0,87[α]		
3) KMC	4,08	0,47	0,42**	0,38**	0,88[α]	
4) IC	4,08	0,58	0,44**	0,34**	0,53**	0,74[α]

Note: QC = Quality culture; HC = Human capital; KMC = Knowledge management capability; IC = Innovation capability; SD = Standard deviation.
*** p<0,05.*
[α] Cronbach's alpha

Structural equation modelling was preferred to test the study's hypotheses. Two thousand bootstrap samples were used when testing mediation hypotheses, and bias-corrected 95% confidence intervals were calculated for coefficients. The findings of the hypothesis testing are given in Table 3.

Table: 3
Findings of the Hypothesis Testing

Hypothesis	Path	Coefficient	p Value	Result
H_1	QC → IC	0,50	0,001	Supported
H_2	HC → IC	0,26	0,001	Supported
H_3	QC → KMC	0,41	0,001	Supported
H_4	HC → KMC	0,29	0,001	Supported
H_5	KMC → IC	0,49	0,001	Supported

Note: QC = Quality culture; HC = Human capital; KMC = Knowledge management capability; IC = Innovation capability
CMIN/df = 1,597; CFI = 0,957; TLI = 0,948; RMSEA = 0,051.

Model fit values depicted in Table 3 demonstrated that the proposed research model fit the data well. Hypothesis testing revealed that quality culture positively affects innovation capability ($\beta = 0,50$; $p < 0,05$) and knowledge management capability ($\beta = 0,41$; $p < 0,05$). Thus, H_1 and H_3 were supported. Results also showed that human capital positively influences innovation capability ($\beta = 0,26$; $p < 0,05$) and knowledge management capability ($\beta = 0,29$; $p < 0,05$). Hence, H_2 and H_4 were supported. Finally, knowledge management capability positively affects innovation capability ($\beta = 0,49$; $p < 0,05$). H_5 was supported.

Results of the mediation analysis were presented in Table 4 below.

Table: 4
Mediation Analysis

Hypothesis	Path	Direct Effect	Indirect Effect	Result
H_6	QC → KMC → IC	0,29**	0,20**	Partial Mediation
H_7	HC → KMC → IC	0,11	0,14**	Full Mediation

Note: QC = Quality culture; HC = Human capital; KMC = Knowledge management capability; IC = Innovation capability
*** p < 0,05. CMIN/df = 1,597; CFI = 0,957; TLI = 0,948; RMSEA = 0,051.*

Findings revealed that the indirect effect of quality culture on innovation capability via knowledge management capability is statistically significant ($\beta = 0,20$; $p < 0,05$). In addition, the direct impact of quality culture on innovation capability is also significant ($\beta = 0,29$; $p < 0,05$). Hence, H_6 of the study was partially supported, indicating that knowledge management capability has a partial mediation role in the relationship between quality culture and innovation capability. Hypothesis testing also pointed out that the indirect effect

of human capital on innovation capability via knowledge management capability is statistically significant ($\beta = 0,14$; $p < 0,05$); however, the direct impact of human capital on innovation capability is nonsignificant ($\beta = 0,10$; $p > 0,05$). Thus, H_7 was supported.

Table 5 presents a summary of the results from the hypothesis testing.

Table: 5
Hypothesis Testing Results

Hypothesis	Statement	Result
H_1	Quality culture positively influences innovation capability.	Supported
H_2	Human capital positively influences innovation capability.	Supported
H_3	Quality culture positively influences knowledge management capability.	Supported
H_4	Human capital positively influences knowledge management capability.	Supported
H_5	Knowledge management capability positively influences innovation capability.	Supported
H_6	Knowledge management capability mediates the relationship between quality culture and innovation capability.	Partially Supported
H_7	Knowledge management capability mediates the relationship between human capital and innovation capability.	Supported

5. Discussion and Conclusion

This study investigates the influence of quality culture and human capital on innovation capability and the mediating role of knowledge management capability on this effect in SMEs. Data collected from 227 SMEs in Istanbul were analysed via structural equation modelling.

Results of the hypothesis testing provided evidence for the H_1 hypothesis, indicating that quality culture positively affects innovation capability. Quality-oriented firms embrace teamwork and a continuous improvement philosophy. Hence, they encourage their employees to create and implement new ideas in products and processes, resulting in higher innovation capability. Previous studies do not provide direct findings about this relationship. However, Sahoo (2019) found that quality management practices increase the ability of SMEs to innovate. Jiménez-Jiménez et al. (2020) reported that total quality management practices help firms develop innovation capabilities.

H_2 of the research was supported. Human capital positively affects innovation capability in SMEs. When the employees' knowledge, skills and capabilities increase, SMEs' ability to transform new ideas into products and processes increases. Previous studies have shown similar relationships between these concepts. For example, Barkat et al. (2018) reported that human capital is positively associated with the innovation capabilities of textile firms. Karadag et al. (2023) showed that, based on the resource-based theory, there is a positive relationship between human capital and innovation capabilities of new ventures.

H_3, which proposed that quality culture positively influences knowledge management capability in SMEs, is supported. Quality culture encourages doing new things, for instance, creating new knowledge or inventing new ways of using existing knowledge. Additionally, quality culture promotes continuous learning and improvement, which triggers the dissemination, application and sharing of knowledge in firms. Thus, knowledge management capability increases when firms have a quality culture. To the authors'

knowledge, no study provides evidence of this relationship. Hence, this finding can be accepted as a unique contribution of the present study.

Another hypothesis, H_4, was supported according to the results of hypothesis testing. In SMEs, human capital is positively associated with knowledge management capability. Human capital consists of employees' skills, experiences, and knowledge. Higher human capital levels indicate that employees are skilled and have experience and expertise. This will create new knowledge and/or dissemination, application and sharing, increasing knowledge management capability. No direct finding in the literature supports or contradicts this result. Thus, the relationship between human capital and knowledge management capability in SMEs is another unique contribution of this paper.

H_5 was also supported. Knowledge management capability positively affects innovation capability in SMEs. Innovation contains knowledge. Firms must make, disseminate, share, and apply knowledge to create successful innovations. In other words, if firms manage knowledge effectively, they will be successful in innovation activities. To the best of the authors' knowledge, no study demonstrates this relationship. Hence, this finding can be accepted as a unique contribution of the present study.

The findings of the hypothesis testing provided partial support for H_6. Knowledge management capability partially mediates the relationship between quality culture and innovation capability in SMEs. When firms have a culture that focuses on quality, knowledge management capability increases, leading to higher levels of innovation capability. In addition, the direct effect of quality culture on innovation capability remains significant. This finding is another contribution of this paper, as no other study has been found regarding this relationship.

H_7 was supported, which proposes that knowledge management capability mediates the relationship between human capital and innovation capability. Firms with skilled and knowledgeable employees develop the ability to create, disseminate, share and apply knowledge effectively. This, in turn, increases innovation capability because knowledge is managed successfully. The authors did not conduct any study to support this finding. Hence, it may be seen as another contribution of this paper to the literature.

This study provides some practical implications. To boost their firms' innovation capability, managers should know that implementing a quality culture will develop knowledge management and innovation capabilities. Thus, managers should encourage continuous learning and create a climate open to change. Although building or changing the organisational culture is challenging, managers should devote time and resources to building a quality-oriented culture.

Human capital is another antecedent of knowledge management and innovation capabilities. Top management should also design and implement human resource management policies that attract high-skilled and knowledgeable employees to increase their

firms' human capital. These policies may include competitive salaries, attractive promotion options, decision-making latitude, and empowerment activities. They may also give incentives to employees for their personal development efforts, such as gaining new knowledge and skills.

According to the results, knowledge management capability also affects innovation capability in SMEs. Top management of SMEs should invest in a knowledge management structure and redesign the firm's processes to manage knowledge effectively. They can also implement human resource policies that promote knowledge management activities across the organisation to develop knowledge management capability. The study's findings revealed that building a quality-oriented culture and boosting human capital will enhance knowledge management capability.

This study has limitations. First, the data were gathered at a single point in time. Cross-sectional data may not allow researchers to build a causal relationship clearly; thus, the topic should be studied via a time-lagged or longitudinal research design. Second, only quantitative methods were preferred. Future studies may implement a qualitative research design to gain deeper insights about the topic. Finally, the sample included Turkish firms only. Hence, the subject should be studied in other economies and cultures to increase generalizability.

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