

Role of human resource practices, leadership and intellectual capital in enhancing organisational performance: the mediating effect of organisational agility

Fatima Hasan Alhosani

*Management Department, College of Business, Abu Dhabi University,
Abu Dhabi, United Arab Emirates, and*

Syed Zamberi Ahmad

School of Management, Canadian University Dubai, Dubai, United Arab Emirates

Abstract

Purpose – The objective of this study aims to investigate the manner in which Human Resource Practices (HRP), leadership, and intellectual capital contribute to organisational agility within the healthcare sector, and to assess how this agility influences overall organisational performance.

Design/methodology/approach – This research was undertaken within healthcare organisations situated in the United Arab Emirates (UAE). The study sample comprised of 275 participants, and the distribution of the sample across various classifications closely mirrored that of the larger population. To assess the formulated hypotheses, the research utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) software.

Findings – Results confirmed the proposed framework and uncovered the significance of HRP, leadership and intellectual capital on organisational agility and organisational performance in a dynamic environment like hospitals.

Originality/value – This study demonstrates originality by investigating hospital responsiveness within a highly dynamic context necessitating agility from both managerial and non-technical perspectives. Additionally, it explores the impact of HRP, leadership, and intellectual capital on organisational agility, along with its repercussions for overall organisational performance.

Keywords Organisational agility, Leadership, Human resource practices, Knowledge application, Counter knowledge, Intellectual capital, Healthcare sector

Paper type Research paper

1. Introduction

The environments in which organisations operate today are considered more volatile, chaotic, and complex than in previous eras (Rosenhead *et al.*, 2019). Considering this reality, organisations must embrace an adaptive and forward-thinking approach that encompasses the entire business system and focuses on long-term outcomes (Mani and Mishra, 2020). Hence, the present situation necessitates a new managerial perspective that prioritises agility. Guided by this view, organisational operations should promptly and adaptively address organisational shifts while possessing the ability to effectively navigate uncertain circumstances (Melián-Alzola *et al.*, 2020). These issues are equally applicable to the healthcare sector, which experiences an increase in rivalry, technological innovation, changes in the market environment and evolving client wants (Al Owad *et al.*, 2023). The personnel in the healthcare sector are impacted by social and demographic changes, rapid advancements in medical technology, specialised interests, increasing public demand for treatment, and new systems regarding healthcare administration and organisation. These factors will have an



effect on existing hospital systems (Kunst *et al.*, 2023). Considering this, it is necessary to embrace the concept of adapting to unforeseen changes, which contributes to the evaluation of flexibility (Shah *et al.*, 2023).

Additional research is warranted to explore the factors that impact organisational agility (OA) within the healthcare industry (Prashar, 2023) as it is considered a complex sector with various levels of operations, including doctors, patients, nurses, facility managers, departments, and even medical students. According to Pillai and Srivastava (2022), individuals within organisations must exhibit commitment and readiness for change. This emphasises the crucial role of personnel in OA, which is essential for successful performance. Consequently, there has been a focus on people as a significant factor influencing OA (Doeze Jager-van Vliet *et al.*, 2019). Salmen and Festing (2021) presented a comprehensive examination of research on OA, specifically highlighting its conceptualisation, measurement, and the distinct role played by human resource management (HRM) in fostering its growth. Consequently, hospitals, like other organisations, can leverage the human aspect of OA (Chrissy *et al.*, 2022). The effective delivery of healthcare relies on various factors, including personnel and inter-departmental and inter-unit connections (Vaishnavi *et al.*, 2019).

Mack *et al.* (2023) noted that developments in modern medicine and technology as well as diversity in patient responses to treatments create a work environment that is highly complicated, uncertain, and dynamic for healthcare practitioners. Therefore, there is a rising curiosity surrounding the exploration of elements that contribute to the augmentation of hospital agility (Shafiee *et al.*, 2023). Roy *et al.* (2020) assert that due to the continuous evolution and significance of healthcare services, achieving this commitment and readiness for change is considered challenging. Moreover, the presence of multi-tiered healthcare providers, which are intricate and composed of several hierarchical layers to manage, adds another level of complexity to an already demanding working environment. Healthcare providers are practitioners working in hospitals where critically ill patients receive continuous clinical attention. They heavily depend on resources and services obtained from external hospitals and non-hospital entities (Spencer *et al.*, 2023), necessitating the employment of highly trained specialists. Hospitals demand quick reflexes and highlight the importance of high-quality professional performance (Nasurudin *et al.*, 2020).

According to Melián-Alzola *et al.* (2020), the existence of human resource practices (HRP) and leadership (LS) significantly contributes to fostering OA. Despite concerns regarding intellectual capital (IC), which potentially impacts creativity and innovation, it is crucial to acknowledge that knowledge ultimately empowers progress and development. According to Cegarra-Navarro and Martelo-Landroguez (2020), utilising IC in the form of knowledge application (KA), and countering knowledge (CK) most effectively can contribute to OA. Hence, this study focuses on the healthcare industry and recognises the need for an agile management approach. Within this sector, understanding the interplay between HRP, LS and IC in the context of OA can become a critical factor influencing overall performance. The research enquiries focus on examining how HRP, LS and IC influence OA and investigate the subsequent effects on OP, by applying the social exchange theory (SET) as a foundation of this study. Therefore, this study contributes to the existing pool of knowledge in hospital management by examining it through the lens of service management. This research aims to address two questions:

RQ1. what is the impact of HRP, LS and IC on OA? And

RQ2. how does OA affect OP?

The article begins with an introductory section that provides the context and background information. This is followed by a comprehensive literature review that delves into the variable of interest and formulation of the hypothesis. Subsequently, the research methodology is thoroughly discussed, encompassing details about the sample, participants, measurement of

variables, the proposed analysis technique, and hypothesis testing. The discussion section presents the research findings and their implications thoroughly and coherently. Finally, the conclusion provides a succinct summary of this research and its key takeaways.

2. Literature review and hypotheses development

2.1 *Social exchange theory (SET)*

The SET holds significant relevance in shaping the comprehension of individuals' behaviour concerning resource utilisation and exchange, particularly within the healthcare context (Zhang and Liu, 2021). This theory has found extensive applications across the healthcare sector in knowledge sharing (Zhuo and Wang, 2024), human resource practices (Akingbola *et al.*, 2023) and leadership (Orekoya, 2023). SET acts as a lens in the study, by examining the employee-organisation relationship through the exchange of resources. It investigates how HRP, LS and IC effect this dynamic relationship by nurturing mutual benefit and trust, thereby impacting performance. Moreover, SET aids in understanding organisational agility as a mediator between HRP, LS, IC, and OP (Quansah *et al.*, 2023). The theory also highlights balanced exchanges, suggesting that fair treatment and adequate rewards lead to improved performance, potentially influenced by effective HRP and strong LS fostering balanced exchanges (Pazetto *et al.*, 2023). Additionally, SET underlines trust and commitment's crucial role, suggesting that HRP and LS impact these, affecting the quality of exchanges and overall organisational performance (Salehi *et al.*, 2023). Taken as a whole, SET enriches the exploration of how HRP, leadership, intellectual capital, organisational agility, and organisational performance intersect within the social exchanges between individuals and the organisation.

2.2 *Organisational agility (OA) from a healthcare perspective*

OA refers to an organisation's ability to effectively adjust to ever-changing and volatile environments, effectively mitigate risks, and leverage opportunities that arise in novel situations (Pajouyhan *et al.*, 2019; Aldiabat, 2022). This capacity for agility encompasses essential traits such as speed, flexibility, and responsiveness to changes (Baikuni *et al.*, 2022), underscoring the organisation's stability amidst fluctuations. Moreover, the healthcare system includes consistent components, including primary care centres, hospitals, and rehabilitation units that collaborate in difficult, nonlinear ways at various levels, involving patients, families, medical centres, and government entities, sometimes leading to undesired consequences such as adverse treatment reactions or re-hospitalisations (Paramba and Zilate, 2022). This intricacy justifies the implementation of OA as a management criterion in hospital units (Petrick *et al.*, 2023). An agile organisation is characterized by its seamless integration of procedures, human resources, and cutting-edge technology aimed at efficiently catering to customer demands for exceptional products and services (Fournier *et al.*, 2023). This transformation involves established organisations, often imbued with a sense of moral ascendancy due to their longstanding market dominance, evolving into highly adaptable entities capable of swiftly responding to dynamic changes. These adept organisations possess the requisite competencies to effectively implement strategic shifts and attain revitalization.

2.3 *Human resource practices (HRP)*

HRP are encapsulated within four interconnected activities: selection, development, retention, and motivation of employees, aimed at enabling them to contribute value to the organization (Trivedi and Srivastava, 2023). In today's approach to HRP, it's all about emphasising ongoing training, encouraging employees to actively participate, and fostering open

communication from all sides. These are the vital aspects demanded by modern HRP strategies (Lee and Lee, 2022). The implementation of HRP within the healthcare industry is acknowledged in scholarly works (Caligiuri *et al.*, 2020). In this context, literature underscores the significance of proficiently managing healthcare personnel by prioritising elements such as training (Mousa and Othman, 2020), involvement in decision-making processes, (Driever *et al.*, 2020) and the strategic application of rewards and incentives (Nilsen *et al.*, 2020), among others. According to Jabbar *et al.* (2023), HRP not only affect patient outcomes but also play a crucial role in enhancing teamwork and relationships among healthcare professionals. They suggest that by promoting practices like collaboration and mutual support, especially in settings where different roles depend on each other, HRP can lead to improved clinical results and ultimately better care for patients. Furthermore, Canet-Giner *et al.* (2020) suggested strategies to harness the positive impact of HRP in agile contexts. These strategies include comprehensive employee training for versatile roles and the implementation of both monetary and non-monetary incentives. Najam *et al.* (2020) underscored HRP's role in fostering employee agility, especially in responsive hospital settings. Grady *et al.* (2023) highlighted key motivators such as flexible staffing, collaborative management-employee relationships, and employee training as essential for the agility of healthcare organisations. In the dynamic and complex healthcare environment, the ability to swiftly adapt is vital for maintaining high-quality care and ensuring safety. This underscores the significance of improving and optimising HRP in healthcare settings. Thus, H1 is formulated as follows:

H1. There is a significant impact of HRP on OA.

2.4 Hospital LS and AO

Leadership symbolises the managerial skill of offering direction and a clear vision, acknowledging and nurturing individual talents, and motivating employees to wholeheartedly pursue the accomplishment of organisational goals (Supriatna and Zulganef, 2023). According to Bagherian *et al.*, (2023) leadership has a big impact on how employees feel about the goals of the organisation. They also mention that good leaders create visions for the future, encourage their team members to come up with new ideas, and make sure everyone stays motivated. Negt and Haunschild (2024) acknowledge the significance of nurturing leadership skills within the inherently complex landscape of healthcare organisations. In this environment, leaders are tasked with addressing the needs of numerous stakeholders while navigating diverse performance objectives. Therefore, in agile organisational structures such as hospitals, leaders are recognised as possessing a clear vision and direction that resonates with and is embraced by the organisation's members; they play a crucial role in fostering organisational learning and cultivating a culture of change acceptance (Pathiranage, 2019). The influence of hospital LS on an OA is evident in modern organisations where proactive and empathetic managers with robust technical and interpersonal skills are required (Liang *et al.*, 2020). Sutha and Thathsara (2021) further argued that management style significantly influences OA, emphasising the importance of a participative management approach and employees' awareness of management objectives. Leaders in healthcare organisations must possess the ability to navigate and expedite change while fostering a culture of collaboration, innovation, and adaptability. In hospitals, effective leadership is essential, as engaged leaders are required to motivate individuals to adapt to changes and navigate challenging environmental conditions (Barden *et al.*, 2020). Proficient hospital leaders, comprising middle and top management as well as clinical professionals, play a significant role in enhancing OA to facilitate operations within hospitals (Van de Riet *et al.*, 2019). In this regard, the latest version of the EFQM Excellence Model 2012 supports leadership as a key factor in the capability to deal with situations of change and uncertainty (De Menezes *et al.*, 2022). Based on this, H2 was formulated as:

H2. There is a relationship between hospital LS and OA.

2.5 IC and OA

In the healthcare sector, IC refers to the intangible assets possessed by hospitals that can be utilised to gain a competitive edge (Li *et al.*, 2019; Omoush, 2019). Within IC, intellectual agility is a significant component, denoting the capacity of an organisation's staff to adapt structures and devise ground-breaking approaches to tackle challenges (Ali *et al.*, 2020). This perception is attentively connected to OA, which relates to an organisation's ability to adjust its strategic direction or reallocate resources to create value (Aldiabat, 2022). Studies have suggested that OA can be seen as an extension of intellectual agility resulting from the transfer and retrieval of knowledge across contexts (Baikuni *et al.*, 2022; Torre *et al.*, 2020).

The existing literature has proposed various frameworks to achieve OA, and it is evident that effective market examination and alignment within an organisation depend on both internal and external knowledge sources (Stawasz, 2019). In this context, IC encompasses not only the application of validated knowledge through procedures and protocols, but also the incorporation of unverified theories, rumours, informal expressions, or sayings known as counter-knowledge (CK). Although knowledge exchange can occur through both KA and CK, it is essential to recognise their distinct characteristics. KA involves formal processes of applying learned knowledge to new contexts, whereas CK is the more informal and flexible dissemination of unsubstantiated information, often left to individuals (Imran *et al.*, 2021).

2.5.1 KA and OA. It is evident from research that OA necessitates the proper integration of knowledge processes (Al-Husseini, 2023). KA refers to the daily use of knowledge (Amponsah, 2022). It allows organisations to leverage available knowledge in the form of procedures and protocols, saving time and facilitating decision-making. It also enables organisations to learn from past experiences and avoid repeating mistakes, thus enhancing organisational agility (Jayampathi *et al.*, 2022). Organisations can ensure that accurate and reliable information is utilised in the decision-making process by establishing validated routines and protocols for knowledge application. In this context, the KA process not only serves as a means of utilising the embedded information acquired through IC (Chatterjee *et al.*, 2023), but also functions as a mechanism for filtering and updating this information (Citrasari *et al.*, 2022). Consequently, effective knowledge application is an integral component of OA. By using stored information from an organisation's history, companies can leverage this knowledge to make informed decisions and adapt to new challenges (Alvarenga *et al.*, 2023). As hospitals update their organisational characteristics over time, they demonstrate their capability to learn, evolve, and respond efficiently to changing environments. This iterative cycle of utilising IC through KA enhances OA, enabling companies to create competitive advantages and successfully navigate uncertainties. Overall, the KA process plays a crucial role in facilitating and achieving OA. Therefore, H3 was expressed as follows:

H3. There is a relationship between KA and OA.

2.5.2 CK and OA. CK refers to misinformation presented in a manner that appears factual (Zhao *et al.*, 2019). Unfortunately, many individuals tend to accept information from unverified sources, including Untrue, deceptive, overstated, or defamatory rumours disseminated through the mass media (Guo *et al.*, 2022). It is important to note that misusing CK in the learning process threatens the formation of new knowledge (Delshab *et al.*, 2020). This research focuses on "bad counter-knowledge", referring to influenced messages that lead to a harmful cycle of common doubt and possible issues for organisations striving for agility and neutrality in the public interest (Johansen *et al.*, 2022).

CK is not the result of only unverified theories of illegitimate statements (Zhao *et al.*, 2019). It may also result from incorrect thinking, negative experiences, or irrational feelings.

Extending the concept of “emotional knowledge” (Afsar *et al.*, 2019), it can be asserted that uncontrolled emotions, such as unsupported anxiety of negative appraisal, could prompt individuals to sever associations with their organisation and managers. Moreover, this unfounded fear can be easily adopted by others seeking protection from contradicting advice or negative evaluation (Dima and D’Ascenzo, 2021). To avoid the occurrence of unsupported information, organisations can increase process efficiency and adopt common positions by encouraging interactions across sectors and levels through informal exchanges, conversation, or dual projects (Sulistiyan and Setyadi, 2021). Hence, CK is an integral component of a multifaceted system and encompasses beyond a mere inventory of inappropriate actions, encompassing the propagation of unverified theories or unfounded assertions. Thus, H4 was articulated subsequently:

H4. There is a significant impact of CK on OA.

2.6 Mediating role of OA

IC plays a fundamental role in determining the success of organisations as organisations operate in swiftly changing environments with a continuous need for knowledge creation and transformation, effective IC management becomes paramount for sustaining competitiveness. Shahbaz *et al.* (2021) further highlighted the critical role of HRP in IC development and OP. Thus, nurturing HRP and LS through attractive work environments and focusing on employee growth enhances IC, ultimately benefiting organisational and relational capital. The link between HC and IC development is vital for bolstering OP and agility, and the significance of HC and IC in OP and agility has been consistently supported by various studies. These resources, which encompass employee knowledge, skills, expertise, and intangible assets such as information and innovation, are pivotal in attaining competitive advantage and superior performance across diverse industries. HRP, LS and IC act as driving forces of organisational success by fostering innovation, adaptability, and overall excellence. OA assumes a mediating role in this context, reflecting an organisation’s capability to respond rapidly and effectively to alterations, uncertainties, and opportunities in the healthcare business environment. It serves as a link between HRP, LS and IC and impacts OP.

The proposed framework (see Figure 1) provides a comprehensive perspective on the factors influencing organisational success, highlighting the interplay between HC, IC, OA, and performance. This holistic approach underscores the importance of the efficient management of humans and IC, fostering agility to enhance OP. Strategic alignment of these components empowers businesses to thrive in dynamic and competitive business landscapes. The study underscores the critical role of HRP, leadership, and IC (KA and CK) in driving OP and gaining a competitive edge, with OA serving as a mediator. Therefore, the subsequent hypotheses are formulated:

H5. OA has a significant impact on OP.

H6–H9. OA mediates the relationship between HRP, leadership, knowledge application, counter knowledge and OP.

3. Research methodology

3.1 Sample and participants

The study was conducted in United Arab Emirates (UAE) healthcare sector. A targeted number of professionals from various departments were invited to participate in the survey. The female respondents were 63.6% and males were 36.4%. Additionally, responses were received from different professional categories: 33.8% doctors, 42.5% nurses, 2.5% dentists,

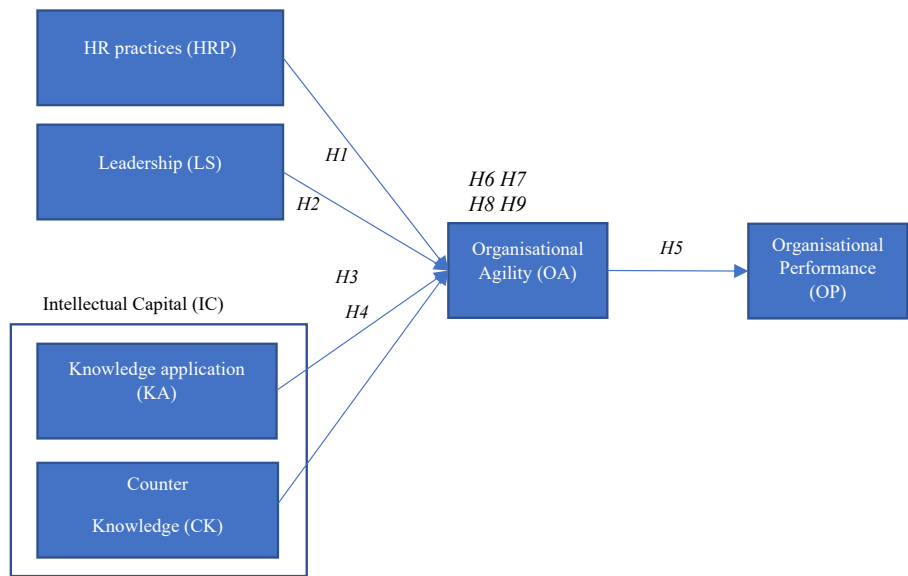


Figure 1.
The conceptual
framework for this
research

Sources(s): Developed by authors

4.4% pharmacists, 4.4% technicians and 12.4% others (administrative). The distribution of the respondents is presented in [Table 1](#).

Variable	Category	<i>n</i>	%
Gender	Male	100	36.4
	Female	175	63.6
Age	18–24	6	2.2
	25–34	68	24.7
	35–44	103	37.5
	45–54	80	29.1
	55–64	18	6.5
Sector	Public	137	49.8
	Private	54	19.6
	Semi-Government	84	30.5
Experience	Less than one year	29	10.5
	2–5 years	46	16.7
	6–10 years	43	15.6
	11–15 years	65	23.6
	16–20 years	52	18.9
	over 20 years	40	14.5
Occupation	Doctor	93	33.8
	Nurse	117	42.5
	Dentist	7	2.5
	Technician	12	4.4
	Pharmacist	12	4.4
	others	34	12.4

Table 1.
Characteristics of
respondents

Source(s): Developed by authors

3.2 Measurement

For gathering the data, a self-administered personal online survey was used, with a 5-point Likert scale (from 1 strongly disagree to 5 strongly agree). Using purposive sampling approach, focusing on organisations that are known for their innovative HRP, adaptable leadership styles, strong intellectual capital frameworks, and shown ability to quickly change within the healthcare sector. The strategies proposed offer a comprehensive framework to offset common method bias and social desirability bias in research methodologies. Starting by a consent form, ensuring anonymity and confidentiality in data collection as it encourages outspoken responses, reducing social desirability bias by reassuring participants of non-attribution. Employing diverse data sources, such as self-reports, peer evaluations, and pre-screening phase of the survey prior to kicking off the data collection aids in verifying findings and mitigating over-reliance on singular methods, thereby minimizing common method bias. Constructing precise measurement tools with unambiguous language and neutral questions reduces susceptibility to social desirability bias; this has been tested by a group of subject matter experts working in the healthcare sector. Statistical techniques like multi-collinearity test and variance inflation factor for the model, help identify and control common method bias during analysis. Employing these measures collectively, aligned with research objectives, enhances the credibility and reliability of research outcomes. The items on the measurement scales are based on the literature review summarized in [Table 2](#). To establish the logical coherence and lucidity of the survey items, an initial pilot study was conducted involving a sample size of 35 individuals from the healthcare. An online survey was constructed using Microsoft Forms, the survey was distributed through various channels to cover most of the personnel working in the healthcare sector in the UAE, and additionally the survey was originally designed in English and was back-to-back translated to reach a large group of respondents.

Knowledge application scale is based on the original work of [Gold *et al.* \(2001\)](#) work, initially, the scale was composed of 12 items, but in the post-pilot study, it was reduced to 6 items. The questions focus on the organisation's approach to acquiring knowledge, the availability of the knowledge to personnel in the healthcare sector and the utilization of the knowledge in new developments, given that the healthcare sector is active, and medicine is rapidly evolving.

4. Data analysis and results

As part of the data analysis, the first step is data screening. First, the missing values in the data were checked. The data in the present study had no missing values. Next, the outliers

Construct /Dimension	Number of items	Source
HR practices (HRP)	4	Melían-Alzola <i>et al.</i> (2020)
- Training	5	
- Participation	2	
- Recognition	4	
- Communication		
Leadership (LS)	3	Melían-Alzola <i>et al.</i> (2020)
Knowledge application (KA)	7	Cegarra-Navarro and Martelo-Landroguez (2020)
Counter-knowledge (CK)	4	Cegarra-Navarro and Martelo-Landroguez (2020)
Organisational agility (OA)	4	Melían-Alzola <i>et al.</i> (2020)
Organisational performance (OP)	5	Felipe <i>et al.</i> (2019)
Source(s): Developed by authors		

Table 2.
The measurement
scale items from
literature

were assessed using boxplots, the boxplots showed no extreme outliers. The data distribution was assessed through skewness and kurtosis. Skewness and kurtosis were found in the range of ± 2 . Hence, the data distribution doesn't pose any threat (Collier, 2020). To assess the multicollinearity, Tabachnick and Fidell's (2007) recommendation was followed, and the correlation was examined, none of the correlational values were above 0.85 (See Table 3). Hence, there is no issue of multi-collinearity. Finally, to assess the common method bias, Variance Inflation Factor (VIF) values of the inner model were examined. The VIF values are lower than the threshold of 5. Hence, the model can be referred to as free from common method bias (Hair *et al.*, 2021). The study used Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS4 to test the research framework. PLS-SEM is a two-step process including measurement and structural model assessment.

4.1 Measurement model

The assessment of the measurement model began with analysing the factor loadings. According to Hair *et al.* (2021), a factor loading threshold of 0.70 is recommended. All items in the study had factor loadings above 0.70, indicating acceptable values. As a result, no items were removed from the study.

The next step involved evaluating construct reliability, determined by Cronbach's Alpha and Composite Reliability. Both values exceeded the recommended threshold of 0.70, confirming the establishment of construct reliability. Subsequently, construct validity was examined through convergent and discriminant validity. Convergent validity was assessed using the Average Variance Extracted (AVE) metric, with a threshold of 0.50 or higher, as suggested by Fornell and Larcker (1981). The calculated AVE values surpassed the 0.50 threshold, confirming the establishment of convergent validity. All these findings, including descriptive statistics, factor loadings, Cronbach's Alpha, Composite Reliability, and AVE statistics, are summarized in Table 3.

Next, discriminant validity is assessed to establish the distinctiveness of the constructs in the study. Discriminant validity is evaluated through Fornell and Larcker (1981) criterion and Heterotrait-Monotrait (HTMT) Ratio (Henseler *et al.*, 2015).

To examine the distinctiveness and establish the discriminant validity of the study constructs using Fornell and Larcker's (1981) criterion, the square root of the AVE of each construct should be higher than the correlation of the construct with all the other constructs. The analysis results showed that the $\sqrt{AVE}$ for the constructs in the study was higher than the correlation of that construct with the other study constructs. This leads to the establishment of discriminant validity and further, ascertains the individuality of the construct and shows that within the construct variance is greater than the shared variance. Consequently, the discriminant validity was established (see Table 4).

Recently a new criterion (Heterotrait-Monotrait (HTMT) ratio) to establish discriminant validity was proposed by Henseler *et al.* (2015). The method was presented in the study to establish the discriminant validity. Based on the HTMT ratio, discriminant validity is established if the HTMT ratio between the study constructs is less than 0.90. The analysis showed that HTMT ratio values were less than the suggested cutoff value of 0.90. Consequently, establishing discriminant validity was established (see Table 4).

4.2 Validating higher order construct of HRP

HRP represents a higher-level formative concept that emerges from the combination of four underlying constructs: Training, Participation, Recognition, and Communication. To confirm the validity of this higher-order formative construct, the assessment began with an evaluation of multi-collinearity exploiting the Variance Inflation Factor (VIF). A VIF value equal to or less than 5, as suggested by Hair *et al.* (2021), indicates the absence of

	Mean	Std. deviation	Outer loadings	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Training				0.959	0.97	0.89
TR1	3.61	1.146	0.934			
TR2	3.71	1.103	0.964			
TR3	3.74	1.148	0.943			
TR4	3.72	1.129	0.932			
Participation				0.946	0.958	0.822
PP1	3.79	1.170	0.882			
PP2	3.76	1.117	0.886			
PP3	3.61	1.168	0.926			
PP4	3.60	1.199	0.913			
PP5	3.73	1.112	0.924			
Recognition				0.94	0.971	0.943
RC1	3.12	1.279	0.965			
RC2	3.25	1.339	0.977			
Communication				0.943	0.959	0.853
CO1	3.57	1.076	0.889			
CO2	3.73	1.077	0.946			
CO3	3.63	1.061	0.932			
CO4	3.62	1.118	0.927			
Leadership				0.96	0.974	0.926
LS1	3.52	1.102	0.955			
LS2	3.49	1.065	0.969			
LS3	3.52	1.125	0.962			
Knowledge Application				0.968	0.974	0.863
KA1	3.58	1.122	0.917			
KA2	3.62	1.068	0.938			
KA3	3.52	1.125	0.927			
KA4	3.63	1.140	0.925			
KA5	3.72	1.152	0.933			
KA6	3.64	1.199	0.934			
Counter Knowledge				0.968	0.977	0.913
CK1	3.21	1.242	0.96			
CK2	3.20	1.292	0.962			
CK3	3.15	1.331	0.965			
CK4	3.12	1.253	0.935			
Organisational Agility				0.958	0.97	0.889
OA1	3.56	1.094	0.946			
OA2	3.57	1.089	0.951			
OA3	3.56	1.101	0.948			
OA4	3.57	1.126	0.926			
Organisational Performance				0.957	0.967	0.852
OP1	3.40	1.133	0.9			
OP2	3.47	1.147	0.907			
OP3	3.44	1.171	0.954			
OP4	3.42	1.185	0.939			
OP5	3.32	1.231	0.915			

Source(s): Developed by authors

Table 3.
Item descriptive
statistics, factor
loadings, construct
reliability (Cronbach's
alpha and composite
reliability), and
(average variance
extracted)

	VIF	Outer weights	T statistics	p values	Outer loadings	p values
TR $\rightarrow$ HRP	3.403	0.448	4.696	0.000	0.941	0.000
PP $\rightarrow$ HRP	2.904	0.324	3.265	0.001	0.887	0.000
RC $\rightarrow$ HRP	1.969	-0.077	1.177	0.120	0.656	0.000
CO $\rightarrow$ HRP	2.639	0.382	4.015	0.000	0.893	0.000

Source(s): Developed by authors

as satisfactory (>0.10) (Hair *et al.*, 2021). Next, prognostic significance was assessed using the Q-square value. The Q-square for all the variables in the study (OA and OP) was over 0. Hence, the results indicate that the model has predictive relevance. R-square and Q-square statistics are reported in Table 6.

The next step in the data analysis is the evaluation of the proposed hypotheses. To substantiate the proposed hypotheses, the significance of the path coefficients was examined. The results revealed a partially significant and positive impact of HR practices on OA ($\beta = 0.136$, $t = 1.434$, $p = 0.076$). Hence, H1 was partially supported. The analysis further showed a significant and positive impact of leadership ($\beta = 0.153$, $t = 2.118$, $p = 0.017$) and knowledge application ($\beta = 0.605$, $t = 7.111$, $p < 0.001$) on OA. Hence, H2 and H3 were supported. The impact of counter knowledge ($\beta = 0.039$, $t = 1.191$, $p = 0.117$) on OA was found insignificant. Hence, H4 was not supported. Finally, the results showed a significant impact and positive impact of OA ($\beta = 0.814$, $t = 29.793$, $p < 0.001$) on organisational performance. Hence H5 was supported. The results of direct hypotheses are presented in Table 6.

Multiple Mediation analyses were performed to assess the mediating role of OA in the relationship between the predictors (HR practices, knowledge application, counter knowledge, and leadership) and organisational performance (H6, H7, H8, and H9). The results revealed a partially significant indirect effect of HR practices on organisational performance through OA (H6: $\beta = 0.110$, $t = 1.424$, $p = 0.077$). Hence, H6 was partially supported. Next, the results showed a significant indirect effect of leadership on organisational performance through OA (H7: $\beta = 0.125$, $t = 2.131$, $p = 0.017$). Hence, H7 was supported. The results revealed a significant indirect effect of knowledge application on organisational performance through OA (H8: $\beta = 0.492$, $t = 6.773$, $p < 0.001$). Hence, H8 was supported. Finally, the results revealed an insignificant indirect effect of counter-knowledge on OP Dr, through OA (H9: $\beta = 0.031$, $t = 1.199$, $p = 0.115$). Hence, H9 was not supported. Mediation Analysis results are presented in Table 6.

5. Discussion

This study aims to examine the effects of HRP, LS and IC on OP through OA in the UAE healthcare industry. The results concluded that HRP and LS have a significant impact on OA.

	Path Coeff	Std	T statistics	p-value	Decision
H1: HRP → OA	0.136	0.095	1.434	0.076	Partially supported
H2: LS → OA	0.153	0.072	2.118	0.017	Supported
H3: KA → OA	0.605	0.085	7.111	0.000	Supported
H4: CK → OA	0.039	0.032	1.191	0.117	Not supported
H5: OA → OP	0.814	0.027	29.793	0.000	Supported
	R-square	Q ² predict			
OA	0.749	0.739			
OP	0.663	0.572			

Mediation analysis results

	Indirect effect	Std	T statistics	p-value	Decision
H6: HRP → OA → OP	0.110	0.078	1.424	0.077	Partially supported
H7: LS → OA → OP	0.125	0.059	2.131	0.017	Supported
H8: KA → OA → OP	0.492	0.073	6.773	0.000	Supported
H9: CK → OA → OP	0.031	0.026	1.199	0.115	Not supported

Source(s): Developed by authors

Table 6.
Direct hypotheses
results

The results are parallel to the study of [Aman-Ullah *et al.* \(2022\)](#), where they present a significant contribution of HRP on OP in the hospitality sector. Starting with training, where participants agreed that the training is important in preparing the healthcare personnel to deal with critical circumstances, care for and management of relationships with patients, improve technical skills and enhance quality management, [Chala *et al.* \(2022\)](#) also support this by stating that to enhance healthcare providers self-management support competencies through training. Participation is the second element, where the respondents highlighted the importance of engagement, the results show that healthcare organisations in the UAE believe in the spirit of teamwork and the culture of knowledge sharing. In addition to being open to suggestions to improve procedures, processes, and general hospital improvements. The next item is recognition, the surveyed population feels less appreciated and believes that hospital management's recognition can encourage engagement and enhance involvement, as indicated by their responses. Lastly, the communication shows that the UAE healthcare sector is doing a decent job in cascading the mission, vision, plans and objectives of the organisation to all employees, which creates a working environment that has better planning and mitigation options for any unforeseen event, thus contributing to OA.

The research uncovered a substantial impact of leadership on OA. Organisations in the UAE exhibit good involvement as the responses are inclined towards positive feedback, emphasising the role of LS in enhancing OA. Employees view leadership as a compass towards an enhanced OP, through their direct involvement and commitment. LS is also the fuel for improvements, innovation, and engagement of employees in designing an organisation's plans and objectives setting. Similarly, [Odoardi *et al.* \(2019\)](#) support this finding by stating the importance of participative leadership on employee innovation. Moreover, the EFQM model also confirms this by highlighting LS as the key contributor to shaping the organisation values and culture in addition to guiding people towards organisational excellence ([Calvo-Mora *et al.*, 2020](#)).

For IC, KA is highlighted through various measurements, all of which have a positive direction, as respondents have acknowledged that their organisations apply knowledge learned from previous mistakes and experiences. In addition to utilising the knowledge in the development of new processes and services. Also, the knowledge is available to everyone who needs it. This finding agrees with that of [Ganzer *et al.* \(2022\)](#). The research highlights the significance of nurturing a learning culture as a fundamental segment of organisational growth, as noted by [Durrah *et al.* \(2018\)](#). Continuous learning and career progression are critical to uphold the healthcare industry's relevance and forward momentum. This not only related to gaining innovative knowledge but also to effectively transferring and applying this knowledge within an organisational framework. Moreover, appraising IC presents notable challenges and opportunities for development, as highlighted by [Rooney *et al.* \(2023\)](#). On a similar note, the establishment of reliable evaluation techniques is important in precisely determining the value of knowledge assets, which in turn plays a key role in shaping strategic decision-making and financial commitments within the healthcare domain.

For CK, it is agreed among participants that rumours and lies are shared through technological means, and they impact the organisation negatively, by creating misunderstandings and mistrust, thus impacting OA and OP as a result. The findings from [Peterson *et al.* \(2019\)](#) prove that peer-to-peer communications and networking can be a pitfall to the healthcare system if not utilised properly. According to [Huang *et al.* \(2020\)](#), these networks have a crucial role in facilitating the dissemination of knowledge and fostering integration among various organizations within the healthcare system. Consequently, these advancements promote the interplay of the healthcare system while encouraging the development of more cohesive patient care plans and innovative strategies.

5.1 Theoretical implications

The mediating effect of OA in the relationship between HRP, LS, IC, and OP is a crucial aspect of this study. Investigating the role of these factors collectively contributes to a comprehensive understanding of how organisations can enhance their overall performance in dynamic environments. Human resource practices play a pivotal role in shaping an organisation's capabilities. By examining their impact on OA and subsequently on performance, this study addresses an important avenue for strategic management. Furthermore, leadership's influence on OA underscores its significance as a catalyst for fostering adaptability and responsiveness. Effective leadership practices are essential for creating an environment that encourages innovation and quick responses to changing circumstances. The study's focus on intellectual capital introduces an additional dimension. Intellectual capital, encompassing knowledge and expertise, is increasingly recognized as a strategic asset. The positive association between knowledge application and OA sheds light on the importance of knowledge management systems. Leveraging intellectual capital facilitates informed decision-making and enhances an organisation's ability to navigate uncertainties. The identification of OA as a mediating factor linking these inputs to organisational performance offers valuable insights. Agile organisations are better equipped to seize emerging opportunities and mitigate risks, ultimately influencing their performance outcomes. This connection underscores the critical nature of agility in the modern business landscape. In sum, this study delves into a nuanced analysis of how human resource practices, leadership, and intellectual capital collectively contribute to organisational performance through the intermediary role of OA. By interlinking these elements, the study advances our understanding of how organisations can strategically align their practices to adapt, innovate, and ultimately excel in a rapidly evolving environment.

Furthermore, this research makes a valuable contribution to the existing body of information concerning the incorporation of IC with technology. The potential impact of advanced data platforms and analytical tools on the management of IC has been highlighted by [Kolagar *et al.* \(2022\)](#). These tools have the ability to promote the effective acquisition and application of knowledge, hence enhancing the agility of organisations. Similar to the findings of [Kucharska and Rebelo \(2022\)](#), the research outcomes also indicate the potential of IC as a catalyst for promoting innovation. This study can provide a review of the impact of strategic knowledge asset management on the encouragement of creativity and innovation within the healthcare sector. As a result, it plays a significant role in the advancement of theoretical concepts and practical innovations within this field.

Future research in this field could include longitudinal studies to uncover the time-related patterns of HRP, LS, IC, OA and OP. Furthermore, conducting cross-industry comparison analysis could provide insights into the widespread relevance and industry-specific complexities of these interactions. Conducting qualitative research on leadership practices in healthcare settings would provide a more comprehensive understanding of the precise behaviours that promote organisational agility. Promising research directions include investigating the impact of technological integration on agility and performance, reliably quantifying organisational agility in healthcare environments, and examining the role of cultural characteristics on these factors. These efforts will continue to improve our comprehension, providing specific tactics for improving the performance and agility of the business in dynamic circumstances.

5.2 Managerial implications

As the healthcare sector serves a wide array of stakeholders, the main stakeholder is the patients, although not the primary focus of this study, they indirectly reap the benefits of this research by emphasizing the importance of human and intellectual capital in healthcare

organisations. When healthcare organisations invest in their workforce and knowledge management, it can lead to improved patient care, increased patient safety, and better health outcomes. Second, are the healthcare professionals, this research can shed light on the significance of healthcare professionals' skills, expertise, and knowledge in delivering high-quality care and improving patient outcomes. It can encourage healthcare professionals to continuously update their knowledge and skills to enhance their individual and organisational performance. Third are managers, leaders, and policymakers, they can utilise the research findings to inform and shape policies related to human resource development, knowledge management, and OA. It can help in designing strategies that support healthcare organisations in maximizing their performance and adapting to the evolving healthcare landscape. Lastly, the findings from the research can provide valuable insights for healthcare organisations to understand the importance of HRP, LS and IC in driving organisational performance.

The study's findings on intellectual capital (IC) have several practical consequences from a managerial perspective. Healthcare leaders promote policies that encourage and protect IC; this includes securing intellectual property and data privacy while facilitating knowledge transfer (Gravili *et al.*, 2020). Leadership and strategic regulation are also needed to handle the ethical elements of knowledge communication, particularly patient data. Additionally, IC is crucial to hiring and recruiting. Healthcare professionals are more likely to stay with institutions that prioritize and support their professional development, which boosts the organisation's intellectual capital and preserves talent (Ranjan Meher *et al.*, 2023). In strategic decision-making, IC supports informed and knowledge-driven decision-making, improving patient outcomes and operational efficiency (Karasneh, 2020). Moreover, the study's outcomes go beyond the boundaries of healthcare institutions, having a significant impact on numerous sectors that are crucial for the progress of healthcare. These findings provide a clear framework for healthcare technology entrepreneurs to develop advanced tools and solutions that address the key variables of employee productivity, leadership effectiveness, and intellectual capital in healthcare environments. Integrating these insights into curriculum and training programs in educational institutions can be advantageous, as it will equip future medical professionals with the essential skills and knowledge needed to handle the complexities of the changing healthcare sector. Healthcare investors, possessing knowledge about the crucial role of human capital, leadership strategies, and knowledge utilisation in organisational performance, can make well-informed decisions when allocating resources and supporting initiatives aimed at sustainable healthcare improvements. Regulatory bodies have the authority to create policies and standards that ensure high-quality care and promote the use of best practices in workforce development, leadership improvement, and knowledge utilisation. The goal is to promote fair and accessible healthcare services for everyone. This all-encompassing method involves several parties, promoting a cooperative endeavour to improve healthcare quality, technology progress, educational benchmarks, investment tactics, and policy structures for the enhancement of global healthcare systems.

6. Conclusion and limitations

In summary, building on the SET, this research examines the relationship of HRP, LS, IC, AO, and OP within the healthcare sector. It reveals the fundamental role of HRP, in steering organisational success through training, participation, rewards, and communication. Leadership emerges as a key driver of agility and performance, underlining the significance of participative and innovative leadership approaches. The study highlights KA as a crucial contributor to OA and OP. Utilizing knowledge from experiences and efficient information dissemination bolsters adaptability and performance, while counterproductive knowledge pathways can undermine agility and outcomes. The study also analysis CK as a

warning to healthcare organisation that misinformation and rumours can hinder positive outcomes when they propagate through unofficial channels. Therefore, this study emphasises the importance of healthcare organisations incorporating efficient HRP, LS and IC strategies into their operations to strengthen adaptability, improve performance, and successfully navigate the complex healthcare environment with resilience and effectiveness.

The study has several limitations that warrant careful consideration. Firstly, the findings may have limited generalisability due to the specific geographic focus within the healthcare sector, potentially undermining their broader relevance given variations in healthcare systems and organisational structures across regions. Secondly, the cross-sectional design hinders the establishment of causal relationships among HRP, LS, IC, OA, and OP, highlighting the need for more robust longitudinal or experimental approaches. Additionally, the study's heavy reliance on quantitative data may overshadow valuable qualitative insights, potentially preventing a comprehensive understanding of the intricate relationships under investigation. Lastly, the study's conclusions are constrained by the data available during the research period, leaving room for changes in the healthcare landscape to affect the applicability of the findings over time.

References

- Afsar, B., Masood, M. and Umrani, W.A. (2019), "The role of job crafting and knowledge sharing on the effect of transformational leadership on innovative work behavior", *Personnel Review*, Vol. 48 No. 5, pp. 1186-1208, doi: [10.1108/PR-04-2018-0133](https://doi.org/10.1108/PR-04-2018-0133).
- Akingbola, K., Kerekou, S. and Tohon, A. (2023), "Employee engagement in nonprofit organizations: the role of perception of HR and organizational culture", *Journal of Management Development*, Vol. 42 No. 3, pp. 215-233, doi: [10.1108/jmd-09-2022-0232](https://doi.org/10.1108/jmd-09-2022-0232).
- Aldiabat, B. (2022), "The mediating role of strategic intelligence in the relationship between Organisational agility and Organisational excellence in Jordanian telecommunications companies", *Problems and Perspectives in Management*, Vol. 20 No. 4, pp. 496-506, doi: [10.21511/ppm.20\(4\).2022.37](https://doi.org/10.21511/ppm.20(4).2022.37).
- Al-Husseini, S. (2023), "Examining the impact of top management support on employee creativity through the mediating role of knowledge management and absorptive capacity", *International Journal of Innovation Science*, Vol. 15 No. 1, pp. 1-18, doi: [10.1108/IJIS-01-2023-0017](https://doi.org/10.1108/IJIS-01-2023-0017).
- Ali, S., Li, G. and Latif, Y. (2020), "Unleashing the importance of creativity, experience and intellectual capital in the adaptation of export marketing strategy and competitive position", in Trinidad, S. (Ed.), *J.E.PLOS ONE*, Public Library of Science (PLoS), Vol. 15 No. 11, e0241670, doi: [10.1371/journal.pone.0241670](https://doi.org/10.1371/journal.pone.0241670)
- Al Owad, A., Yadav, N., Kumar, V., Swarnakar, V., Jayakrishna, K., Haridy, S. and Yadav, V. (2023), "Integrated Lean Six Sigma and Kotter change management framework for emergency healthcare services in Saudi Arabia", *Benchmarking: An International Journal*, Vol. 31 No. 7, pp. 2305-2325, doi: [10.1108/bij-05-2023-0335](https://doi.org/10.1108/bij-05-2023-0335).
- Alvarenga, M.Z., Oliveira, M.P.V.de and Oliveira, T. (2023), "Let's talk about bad experiences instead of forgetting them: an empirical study on the importance of memory for supply chain disruption management", *International Journal of Production Economics*, Vol. 261, 108872, doi: [10.1016/j.ijpe.2023.108872](https://doi.org/10.1016/j.ijpe.2023.108872).
- Aman-Ullah, A., Mehmood, W., Amin, S. and Abbas, Y.A. (2022), "Human capital and organizational performance: a moderation study through innovative leadership", *Journal of Innovation and Knowledge*, Vol. 7 No. 4, pp. 1-9, doi: [10.1016/j.jik.2022.100261](https://doi.org/10.1016/j.jik.2022.100261).
- Amponsah, V. (2022), "Knowledge Management activities in Ghanaian businesses: review of literature", *International Journal of Management, Knowledge and Learning*, Vol. 10, doi: [10.53615/2232-5697.11.257-270](https://doi.org/10.53615/2232-5697.11.257-270).

- Bagherian, A., Gershon, M. and Kumar, S. (2023), "An empirical study on the leadership traits that enable successful six sigma implementation", *Leadership and Organization Development Journal*, Vol. 44 No. 7, pp. 855-881, doi: [10.1108/loj-10-2022-0452](https://doi.org/10.1108/loj-10-2022-0452).
- Baikuni, A., Dafik, D., Poernomo, D. and Sisbintari, I. (2022), "Framework of intellectual capital-based view in improving firm agility", *Journal of Business and Management Studies*, Vol. 4 No. 3, pp. 01-10, doi: [10.32996/jbms.2022.4.3.1](https://doi.org/10.32996/jbms.2022.4.3.1).
- Barden, A., Giammarinaro, N. and Petrosino, L. (2020), "Perspective shifting: engaging leaders-of-leaders in patient and caregiver experience", *Journal of Patient Experience*, Vol. 7 No. 6, pp. 994-997, doi: [10.1177/2374373520942405](https://doi.org/10.1177/2374373520942405).
- Caligiuri, P., Cieri, H., Minbaeva, D., Verbeke, A. and Zimmermann, A. (2020), "International HRM insights for navigating the COVID-19 pandemic: implications for future research and practice", *Journal of International Business Studies*, Vol. 51 No. 5, pp. 697-713, doi: [10.1057/s41267-020-00335-9](https://doi.org/10.1057/s41267-020-00335-9).
- Calvo-Mora, A., Blanco-Oliver, A., Roldán, J.L. and Periañez-Cristóbal, R. (2020), "TQM factors and organisational results in the EFQM excellence model framework: an explanatory and predictive analysis", *Industrial Management and Data Systems*, Vol. 120 No. 12, pp. 2297-2317, doi: [10.1108/imds-12-2019-0701](https://doi.org/10.1108/imds-12-2019-0701).
- Canet-Giner, T., Redondo-Cano, A., Saorín-Iborra, C. and Escribá-Carda, N. (2020), "Impact of the perception of performance appraisal practices on individual innovative behavior", *European Journal of Management and Business Economics*, Vol. 29 No. 3, pp. 277-296, doi: [10.1108/EJMBE-01-2019-0018](https://doi.org/10.1108/EJMBE-01-2019-0018).
- Cegarra-Navarro, J.-G. and Martelo-Landroguez, S. (2020), "The effect of Organisational memory on Organisational agility", *Journal of Intellectual Capital*, Vol. 21 No. 3, pp. 459-479, doi: [10.1108/JIC-03-2019-0048](https://doi.org/10.1108/JIC-03-2019-0048).
- Chala, M.B., Miller, J., Ghahari, S., Wondie, Y., Abebe, A. and Donnelly, C. (2022), "Health care providers' understanding of self-management support for people with chronic low back pain in Ethiopia: an interpretive description", *BMC Health Services Research*, Vol. 22 No. 1, 194, doi: [10.1186/s12913-022-07610-5](https://doi.org/10.1186/s12913-022-07610-5).
- Chatterjee, S., Chaudhuri, R., Mariani, M.M. and Samuel, F.W. (2023), "Examining the role of intellectual capital on knowledge sharing in digital platform-based MNEs and its impact on firm performance", *Technological Forecasting and Social Change*, Vol. 197, p. 122909, doi: [10.1016/j.techfore.2023.122909](https://doi.org/10.1016/j.techfore.2023.122909).
- Chrissy, R., Namusonge, G. and Iravo, M.A. (2022), "Influence of incentives and rewards on employee performance in selected public institutions in Rwanda", *International Journal of Academic Research in Business and Social Sciences*, Vol. 12 No. 7, doi: [10.6007/ijarbs/v12-i7/14430](https://doi.org/10.6007/ijarbs/v12-i7/14430).
- Citrasari, P.D., Ratnawati, K. and Hadiwidjojo, D. (2022), "Influence of intellectual capital on operational performance through innovation capability in Indonesia's defence industry", *Media Ekonomi Dan Manajemen*, Vol. 37 No. 2, p. 252, doi: [10.24856/mem.v37i2.2934](https://doi.org/10.24856/mem.v37i2.2934).
- Collier, J. (2020), *Applied Structural Equation Modeling Using AMOS: Basic to Advanced Techniques*, Routledge, New York, NY.
- De Menezes, L.M., Escrig-Tena, A.B. and Bou-Llusar, J.C. (2022), "Sustainability and quality management: has EFQM fostered a sustainability orientation that delivers to stakeholders?", *International Journal of Operations and Production Management*, Vol. 42 No. 13, pp. 155-184, doi: [10.1108/ijopm-10-2021-0634](https://doi.org/10.1108/ijopm-10-2021-0634).
- Delshab, V., Pyun, D.Y., Kerwin, S. and Cegarra-Navarro, J.-G. (2020), "The impact of unlearning context on organizational performance through knowledge management: a case of community sport clubs in Iran", *Sport Management Review*, Vol. 24 No. 1, pp. 156-178, doi: [10.1016/j.smr.2020.02.001](https://doi.org/10.1016/j.smr.2020.02.001).
- Dima, A.M. and D'Ascenzo, F. (Eds) (2021), "Business revolution in a digital era", *Springer Proceedings in Business and Economics*. doi: [10.1007/978-3-030-59972-0](https://doi.org/10.1007/978-3-030-59972-0).

- Doeze Jager-van Vliet, S.B., Born, M.Ph. and van der Molen, H.T. (2019), "Using a portfolio-based process to develop agility among employees", *Human Resource Development Quarterly*, Vol. 30 No. 1, pp. 39-60, doi: [10.1002/hrdq.21337](https://doi.org/10.1002/hrdq.21337).
- Driever, E.M., Stiggelbout, A.M. and Brand, P.L.P. (2020), "Shared decision making: physicians' preferred role, usual role and their perception of its key components", *Patient Education and Counseling*, Vol. 103 No. 1, pp. 77-82, doi: [10.1016/j.pec.2019.08.004](https://doi.org/10.1016/j.pec.2019.08.004).
- Durrah, O., Allil, K. and Alkhalaf, T. (2018), "The intellectual capital and the learning organization", *International Journal of Public Leadership*, Vol. 14 No. 2, pp. 109-118, doi: [10.1108/ijpl-08-2017-0031](https://doi.org/10.1108/ijpl-08-2017-0031).
- Felipe, C.M., Leidner, D.E., Roldán, J.L. and Leal-Rodríguez, A.L. (2019), "Impact of IS capabilities on firm performance: the roles of organisational agility and industry technology intensity", *Decision Sciences*, Vol. 51 No. 3, pp. 575-619, doi: [10.1111/deci.12379](https://doi.org/10.1111/deci.12379).
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50, doi: [10.1177/002224378101800104](https://doi.org/10.1177/002224378101800104).
- Fournier, P., Bahl, L., Dun, V., Johnson, K. and Cadieux, J. (2023), "Let's talk about it: the impact of nurses' implicit voice theories on individual agility and quality of care", *International Journal of Operations and Production Management*, Vol. 44 No. 5, pp. 1007-1033, doi: [10.1108/ijopm-11-2022-0752](https://doi.org/10.1108/ijopm-11-2022-0752).
- Ganzer, P.P., Matte, J., Chais, C., Milan, G.S. and Olea, P.M. (2022), "Knowledge management and innovativeness effects on product innovation in the textile context of Brazil", *Exacta*, University Nove de Julho, doi: [10.5585/exactaep.2022.21848](https://doi.org/10.5585/exactaep.2022.21848).
- Gold, A.H., Malhotra, A. and Segars, A.H. (2001), "Knowledge management: an organizational capabilities perspective", *Journal of Management Information Systems*, Vol. 18 No. 1, pp. 185-214, doi: [10.1080/07421222.2001.11045669](https://doi.org/10.1080/07421222.2001.11045669).
- Grady, C., Han, H., Kim, D.H., Coderre-Ball, A.M. and Alam, N. (2023), "Family physicians collaborating for health system integration: a scoping review", *BMC Health Services Research*, Vol. 23 No. 1, 68, doi: [10.1186/s12913-023-09063-w](https://doi.org/10.1186/s12913-023-09063-w).
- Gravili, G., Manta, F., Cristofaro, C.L., Reina, R. and Toma, P. (2020), "Value that matters: intellectual capital and big data to assess performance in individual agility and quality of care", *International Journal of Operations and Production Management*, Vol. 44 No. 5, pp. 1007-1033, doi: [10.1108/ijopm-11-2022-0752](https://doi.org/10.1108/ijopm-11-2022-0752).
- Guo, Z., Schlichtkrull, M. and Vlachos, A. (2022), "A survey on automated fact-checking", *Transactions of the Association for Computational Linguistics*, Vol. 10, pp. 178-206, doi: [10.1162/tac1_a_00454](https://doi.org/10.1162/tac1_a_00454).
- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2021), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage, Thousand Oaks.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135, doi: [10.1007/s11747-014-0403-8](https://doi.org/10.1007/s11747-014-0403-8).
- Huang, H., Leone, D., Caporuscio, A. and Kraus, S. (2020), "Managing intellectual capital in healthcare organizations: A conceptual proposal to promote innovation", *Journal of Intellectual Capital*, Vol. 22 No. 2, pp. 290-310, doi: [10.1108/jic-02-2020-0063](https://doi.org/10.1108/jic-02-2020-0063).
- Imran, Z., Shafique, O., Sarwar, S. and Jamal, W.N. (2021), "The impact of knowledge management environment on knowledge management effectiveness: through mediating role of knowledge sharing process in branch banking of Pakistan", *South Asian Journal of Management Sciences*, Vol. 15 No. 1, pp. 97-117, doi: [10.21621/sajms.2021151.06](https://doi.org/10.21621/sajms.2021151.06).
- Jabbar, J.A., Haider, S. and Qureshi, M.U. (2023), "Moderated mediation between High Performance Work Systems (HPWS) and employee voice behavior: the role of psychological safety and supportive leadership", *Journal of Work and Organizational Psychology*, Vol. 39 No. 3, pp. 145-156, doi: [10.5093/jwop2023a15](https://doi.org/10.5093/jwop2023a15).

- Jayampathi, E.K., De Alwis, A.C. and Razi, M.J.M. (2022), "Role of organisational agility in knowledge management orientation and organisational performance: a systematic literature review", *Wayamba Journal of Management*, Vol. 13 No. 1, p. 1, doi: [10.4038/wjm.v13i1.7550](https://doi.org/10.4038/wjm.v13i1.7550).
- Johansen, N., Marjanovic, S.V., Kjaer, C.V., Baglini, R.B. and Adler-Nissen, R. (2022), "Ridiculing the 'tin foil hats': Citizen responses to COVID-19 misinformation in the Danish facemask debate on Twitter", *Harvard Kennedy School Misinformation Review*, Vol. 3 No. 2, pp. 1-12, doi: [10.37016/mr-2020-93](https://doi.org/10.37016/mr-2020-93).
- Karasneh, A.A. (2020), "Revitalizing theBSCthrough knowledge management: the mediating role of intellectual capital", *Journal of Public Affairs*, Vol. 22 No. 1, doi: [10.1002/pa.2359](https://doi.org/10.1002/pa.2359).
- Kolagar, M., Parida, V. and Sjödin, D. (2022), "Ecosystem transformation for digital servitization: a systematic review, integrative framework, and future research agenda", *Journal of Business Research*, Vol. 146, pp. 176-200, doi: [10.1016/j.jbusres.2022.03.067](https://doi.org/10.1016/j.jbusres.2022.03.067).
- Kucharska, W. and Rebelo, T. (2022), "Knowledge sharing and knowledge hiding in light of the mistakes acceptance component of learning culture- knowledge culture and human capital implications", *The Learning Organization*, Vol. 29 No. 6, pp. 635-655, doi: [10.1108/tlo-03-2022-0032](https://doi.org/10.1108/tlo-03-2022-0032).
- Kunst, H., Nguyen, H., Johnson, A., Mo, S. and MacCann, C. (2023), "Who cares for those who care? The role of healthcare leaders' regulation of followers' emotions on follower job satisfaction", *Australian Journal of Management*, Vol. 82 No. 2, pp. 152-167, doi: [10.1177/03128962231211173](https://doi.org/10.1177/03128962231211173).
- Lee, S.M. and Lee, D. (2022), "Effects of healthcare quality management activities and sociotechnical systems on internal customer experience and organizational performance", *Service Business*, Vol. 16 No. 1, pp. 1-28, doi: [10.1007/s11628-022-00478-9](https://doi.org/10.1007/s11628-022-00478-9).
- Li, Y., Song, Y., Wang, J. and Li, C. (2019), "Intellectual capital, knowledge sharing, and innovation performance: evidence from the Chinese construction industry", *Sustainability*, Vol. 11 No. 9, p. 2713, doi: [10.3390/su11092713](https://doi.org/10.3390/su11092713).
- Liang, Z., Blackstock, F.C., Howard, P., Liu, C., Leggat, G., Ma, H., Zhang, Z. and Bartram, T. (2020), "Managers in the publicly funded health services in China - characteristics and responsibilities", *BMC Health Services Research*, Vol. 20 No. 1, 721, doi: [10.1186/s12913-020-05577-9](https://doi.org/10.1186/s12913-020-05577-9).
- Mack, J.W., Fisher, L., Khalaj, A., Altschuler, A., Chao, C.R., Kushi, L.H., Casperson, M., Lakin, J.R., Lefebvre, A., Schwartz, C.M., Shalman, D.M., Wall, C.B. and Wiener, L. (2023), "Quality indicators for adolescents and young adults with advanced Cancer: a modified delphi process with patients, family members, and clinicians", *Journal of Pain and Symptom Management*, Vol. 66 No. 1, pp. 54-61, doi: [10.1016/j.jpainsymman.2023.03.005](https://doi.org/10.1016/j.jpainsymman.2023.03.005).
- Mani, S. and Mishra, M. (2020), "Characteristics and ingredients of an agile work force – a strategy framework", *Strategic HR Review*, Vol. 19 No. 5, pp. 227-230, doi: [10.1108/shr-02-2020-0013](https://doi.org/10.1108/shr-02-2020-0013).
- Melián-Alzola, L., Domínguez-Falcón, C. and Martín-Santana, J.D. (2020), "The role of the human dimension in Organisational agility: an empirical study in intensive care units", *Personnel Review*, Vol. 49 No. 9, pp. 1945-1964, doi: [10.1108/PR-08-2019-0456](https://doi.org/10.1108/PR-08-2019-0456).
- Mousa, S.K. and Othman, M. (2020), "The impact of green human resource management practices on sustainable performance in healthcare organisations: a conceptual framework", *Journal of Cleaner Production*, Vol. 243 No. 1, 118595, doi: [10.1016/j.jclepro.2019.118595](https://doi.org/10.1016/j.jclepro.2019.118595).
- Najam, U., Ishaque, S., Irshad, S., Salik, Q., Khakwani, M.S. and Liaquat, M. (2020), "A link between human resource management practices and customer satisfaction: a moderated mediation model", *SAGE Open*, Vol. 10 No. 4, 215824402096878, doi: [10.1177/2158244020968785](https://doi.org/10.1177/2158244020968785).
- Nasuridin, A.M., Tan, C.L. and Naseer Khan, S. (2020), "Can high performance work practices and satisfaction predict job performance? An examination of the Malaysian private health-care sector", *International Journal of Quality and Service Sciences*, Vol. 12 No. 4, pp. 521-540, doi: [10.1108/IJQSS-06-2019-0090](https://doi.org/10.1108/IJQSS-06-2019-0090).
- Negt, P. and Haunschild, A. (2024), "Exploring the gap between research and practice in human resource management (HRM): a scoping review and agenda for future research", *Management Review Quarterly*, Vol. 74 No. 1, pp. 1-28, doi: [10.1007/s11301-023-00397-7](https://doi.org/10.1007/s11301-023-00397-7).

- Nilsen, P., Seing, I., Ericsson, C., Birken, S.A. and Schildmeijer, K. (2020), "Characteristics of successful changes in health care organizations: an interview study with physicians, registered nurses and assistant nurses", *BMC Health Services Research*, Vol. 20 No. 1, pp.1-8, doi: [10.1186/s12913-020-4999-8](https://doi.org/10.1186/s12913-020-4999-8).
- Odoardi, C., Battistelli, A., Montani, F. and Peiró, J.M. (2019), "Affective commitment, participative leadership, and employee innovation: a multilevel investigation", *Revista de Psicología Del Trabajo y de Las Organizaciones*, Vol. 35 No. 2, pp. 103-113, doi: [10.5093/jwop2019a12](https://doi.org/10.5093/jwop2019a12).
- Omoush, M. (2019), "Impact of intangible assets (intellectual capital, knowledge management) on innovation: a study on tourist agencies in Jordan (tourist agencies in Irbid)", *International Journal of Business and Management*, Vol. 14 No. 6, p. 138, doi: [10.5539/ijbm.v14n6p138](https://doi.org/10.5539/ijbm.v14n6p138).
- Orekoya, I. (2023), "Inclusive leadership and team climate: the role of team power distance and trust in leadership", *Leadership and Organization Development Journal*, Vol. 45 No. 1, pp. 94-115, doi: [10.1108/loj-03-2023-0142](https://doi.org/10.1108/loj-03-2023-0142).
- Pajouyhan, A., Rezaei, B. and Parno, M. (2019), "The relationship of the components of emotional intelligence with organisational agility in the healthcare network", *Journal of Kermanshah University of Medical Sciences*, Vol. 23 No. 1, e86873, doi: [10.5812/jkums.86873](https://doi.org/10.5812/jkums.86873).
- Paramba, T. and Zilate, S. (2022), "Cross-sectional observational study on association of polypharmacy with health-related quality of life in patients with hypertension", *Cureus*, Vol. 14 No. 10, e30361, doi: [10.7759/cureus.30361](https://doi.org/10.7759/cureus.30361).
- Pathranage, Y.L. (2019), "Organizational culture and business performance: an empirical study", *International Journal of Economics and Management Studies*, Vol. 6 No. 6, pp. 1-12, doi: [10.14445/23939125/ijems-v6i6p101](https://doi.org/10.14445/23939125/ijems-v6i6p101).
- Pazetto, C.F., Luiz, T.T. and Beuren, I.M. (2023), "Empowering leadership for contextual performance: serial mediation of organizational support and commitment", *International Journal of Productivity and Performance Management*, Vol. 73 No. 4, pp. 1005-1026, doi: [10.1108/ijppm-04-2022-0195](https://doi.org/10.1108/ijppm-04-2022-0195).
- Peterson, K., Anderson, J., Bourne, D., Charns, M.P., Gorin, S.S., Hynes, D.M., McDonald, K.M., Singer, S.J. and Yano, E.M. (2019), "Health care coordination theoretical frameworks: a systematic scoping review to increase their understanding and use in practice", *Journal of General Internal Medicine*, Vol. 34, pp. 90-98, doi: [10.1007/s11606-019-04966-z](https://doi.org/10.1007/s11606-019-04966-z).
- Petrick, E., Wahidi, K.R. and Anindita, R. (2023), "Analysis of the management the head of nurse management and reward system and organisational commitment as mediation variables at RSUP Dr Sitanala", *European Journal of Business and Management Research*, Vol. 8 No. 1, pp. 252-258, doi: [10.24018/ejbmr.2023.8.1.1744](https://doi.org/10.24018/ejbmr.2023.8.1.1744).
- Pillai, R. and Srivastava, K.B.L. (2022), "Smart HRM 4.0 for achieving Organisational performance: a dynamic capability view perspective", *International Journal of Productivity and Performance Management*, Vol. 73 No. 2, pp. 476-496, doi: [10.1108/ijppm-04-2022-0174](https://doi.org/10.1108/ijppm-04-2022-0174).
- Prashar, A. (2023), "Modeling enablers of agility of healthcare Organisations", *International Journal of Quality and Reliability Management*, Vol. 41 No. 1, pp. 173-194, doi: [10.1108/ijqrm-11-2022-0322](https://doi.org/10.1108/ijqrm-11-2022-0322).
- Quansah, P.E., Zhu, Y. and Guo, M. (2023), "Assessing the effects of safety leadership, employee engagement, and psychological safety on safety performance", *Journal of Safety Research*, Vol. 86, pp. 226-244, doi: [10.1016/j.jsr.2023.07.002](https://doi.org/10.1016/j.jsr.2023.07.002).
- Ranjan Meher, J., Mishra, R., Ranjan Panigrahi, R., Patel, G. and Kesari Jena, L. (2023), "Does learning culture enhance organizational performance? A serial mediator with knowledge management and organizational intelligence", *Knowledge Management Research and Practice*, Vol. 21 No. 4, pp. 329-346, doi: [10.1080/14778238.2023.2278729](https://doi.org/10.1080/14778238.2023.2278729).
- Rooney, J., Kaushalya, T. and Jayawardana, A.K.L. (2023), "The discovery of absorptive capacity and the practice of intellectual capital mobilization within change management processes", *Journal of Organizational Change Management*, Vol. 36 No. 5, pp. 724-737, doi: [10.1108/JOCM-07-2022-0211](https://doi.org/10.1108/JOCM-07-2022-0211).

- Rosenhead, J., Franco, L.A., Grint, K. and Friedland, B. (2019), "Complexity theory and leadership practice: a review, a critique, and some recommendations", *The Leadership Quarterly*, Vol. 30 No. 5, 101304, doi: [10.1016/j.leaqua.2019.07.002](https://doi.org/10.1016/j.leaqua.2019.07.002).
- Roy, S.N., Shah, B.J. and Gajjar, H. (2020), "Application of simulation in healthcare service operations", *ACM Transactions on Modeling and Computer Simulation*, Vol. 31 No. 1, pp. 1-23, doi: [10.1145/3427753](https://doi.org/10.1145/3427753).
- Salehi, N., Brunetto, Y. and Dick, T. (2023), "The role of authentic leadership on healthcare Street-Level Bureaucrats' well-being during the pandemic", *Australian Journal of Public Administration*, Vol. 82 No. 2, pp. 271-289, doi: [10.1111/1467-8500.12584](https://doi.org/10.1111/1467-8500.12584).
- Salmen, K. and Festing, M. (2021), "Paving the way for progress in employee agility research: a systematic literature review and framework", *The International Journal of Human Resource Management*, Vol. 33 No. 22, pp. 4386-4439, doi: [10.1080/09585192.2021.1943491](https://doi.org/10.1080/09585192.2021.1943491).
- Sarstedt, M., Hair Jr, J.F., Cheah, J.H., Becker, J.M. and Ringle, C.M. (2019), "How to specify, estimate, and validate higher-order constructs in PLS-SEM", *Australasian Marketing Journal*, Vol. 27 No. 3, pp. 197-211, doi: [10.1016/j.ausmj.2019.05.003](https://doi.org/10.1016/j.ausmj.2019.05.003).
- Shafiee, M., Warkentin, M. and Motamed, S. (2023), "Do human capital and relational capital influence knowledge-intensive firm competitiveness? The roles of export orientation and marketing knowledge capability", *Journal of Knowledge Management*, Vol. 28 No. 1, pp. 138-160, doi: [10.1108/jkm-11-2022-0921](https://doi.org/10.1108/jkm-11-2022-0921).
- Shah, B., Kumar, V., Banu, Y.E. and Frederico, G.F. (2023), "Guest editorial: Modelling the business and societal decisions under the impact of COVID-19", *Journal of Modelling in Management*, Vol. 18 No. 4, pp. 1017-1021, doi: [10.1108/jm2-07-2023-326](https://doi.org/10.1108/jm2-07-2023-326).
- Shahbaz, M., Mubarik, M.S. and Mahmood, T. (2021), *The Dynamics of Intellectual Capital in Current Era*, Singapore, doi: [10.1007/978-981-16-1692-1](https://doi.org/10.1007/978-981-16-1692-1).
- Spencer, S.A., Faustina, E.A., Baker, T., Ana, M.C., Dark, P., Dula, D., Gordon, S.B., Hamilton, D., Dawit, K.H., Khalid, K., Sulaiman, L., Limbani, F., Rylance, J., Sawe, H.R., Ibrahim, S., Waweru-Siika, W., Worrall, E. and Morton, B. (2023), "A health systems approach to critical care delivery in low-resource settings: a narrative review", *Intensive Care Medicine*, Vol. 49 No. 7, pp. 772-784, doi: [10.1007/s00134-023-07136-2](https://doi.org/10.1007/s00134-023-07136-2).
- Stawasz, E. (2019), "Factors that shape the competitiveness of small innovative companies operating in international markets with a particular focus on business advice", *Journal of Entrepreneurship, Management and Innovation*, Vol. 15 No. 1, pp. 61-82, doi: [10.7341/20191513](https://doi.org/10.7341/20191513).
- Sulistiyani, E. and Setyadi, D. (2021), "Knowledge sharing and business performance: the role of innovative behavior", *Advances in Economics, Business and Management Research*, Vol. 3 No. 2, pp. 62-67, doi: [10.2991/aebmr.k.211117.009](https://doi.org/10.2991/aebmr.k.211117.009).
- Supriatna, N. and Zulganef, Z. (2023), "The influence of innovation leadership on employee performance", *International Journal of Business, Economics, and Social Development*, Vol. 4 No. 1, pp. 20-24, doi: [10.46336/ijbesd.v4i1.365](https://doi.org/10.46336/ijbesd.v4i1.365).
- Sutha, J. and Thathsara, A.D.S. (2021), "Investigating the influence of E-HRM practices on organizational performance: the mediating role of organizational agility (with special reference to financial institution)", *SSRN Electronic Journal*, Vol. 11 No. 1, pp. 1-8, doi: [10.2139/ssrn.3781411](https://doi.org/10.2139/ssrn.3781411).
- Tabachnick, B.G. and Fidell, L.S. (2007), *Using Multivariate Statistics*, 5th ed., Pearson, Boston, MA.
- Torre, C., Tommasetti, A. and Maione, G. (2020), "Technology usage, intellectual capital, firm performance and employee satisfaction: the accountants' idea", *The TQM Journal*, Vol. 33 No. 3, pp. 545-567, doi: [10.1108/tqm-04-2020-0070](https://doi.org/10.1108/tqm-04-2020-0070).
- Trivedi, K.K. and Srivastava, L. (2023), "The impact of intellectual capital-enhancing HR practices and culture on innovativeness—mediating role of knowledge management processes", *Journal of Organizational Effectiveness*, Vol. 10 No. 2, pp. 174-193, doi: [10.1108/joepp-05-2023-0174](https://doi.org/10.1108/joepp-05-2023-0174).

-
- Vaishnavi, V., Suresh, M. and Dutta, P. (2019), "A study on the influence of factors associated with Organisational readiness for change in healthcare Organisations using TISM", *Benchmarking: An International Journal*, Vol. 26 No. 4, pp. 1290-1313, doi: [10.1108/BIJ-06-2018-0161](https://doi.org/10.1108/BIJ-06-2018-0161).
- Van de Riet, M.C.P., Berghout, M.A., Buljac-Samardžić, M., van Exel, J. and Hilders, C.G.J.M. (2019), "What makes an ideal hospital-based medical leader? Three views of healthcare professionals and managers: a case study", in Vaismoradi, M. (Ed.) Vol. 14 No. 6, e0218095, doi: [10.1371/journal.pone.0218095](https://doi.org/10.1371/journal.pone.0218095).
- Zhang, X. and Liu, S. (2021), "Understanding relationship commitment and continuous knowledge sharing in online health communities: a social exchange perspective", *Journal of Knowledge Management*, Vol. 26 No. 3, pp. 592-614, doi: [10.1108/jkm-12-2020-0883](https://doi.org/10.1108/jkm-12-2020-0883).
- Zhao, H., Liu, W., Li, J. and Yu, X. (2019), "Leader-member exchange, Organisational identification, and knowledge hiding: the moderating role of relative leader-member exchange", *Journal of Organisational Behavior*, Vol. 40 No. 7, pp. 834-848, doi: [10.1002/job.2359](https://doi.org/10.1002/job.2359).
- Zhuo, X. and Wang, W. (2024), "Why are physicians willing to contribute knowledge? Evidence from online health communities", *Computers in Human Behavior*, Vol. 152, p. 108095, doi: [10.1016/j.chb.2023.108095](https://doi.org/10.1016/j.chb.2023.108095).

Corresponding author

Syed Zamberi Ahmad can be contacted at: drszamberi@yahoo.com