# Integrating HPWS and Organisational Memory for Enhanced Employee Performance

Moaz Gharib<sup>1</sup>, Kamaal Allil<sup>2\*</sup>

<sup>1</sup> Associate Professor, Department of Management, College of Commerce and Business Administration, Dhofar University, Salalah, Oman, ORCID ID: <u>mnagib@du.edu.om</u>, <u>https://orcid.org/0000-0002-7794-7900</u>

<sup>2</sup> Senior Lecturer, Hertfordshire Business School, University of Hertfordshire, Hatfield, Hertfordshire, UK, <u>k.allil@herts.ac.uk</u>, ORCID ID: <u>https://orcid.org/0000-0001-5466-6519</u>

\* The corresponding author

#### Abstract:

This research paper investigates the relationship between high-performance work systems (HPWS), organisational memory, and employee in-role performance, focusing on the direct impact of HPWS on different dimensions of organisational memory and employee in-role performance, as well as the mediating role of organisational memory in this relationship. Utilizing a sample of employees working in the telecommunications industry, the study employed structural equation modelling to analyse the relationships among HPWS, organisational memory, and employee in-role performance. The findings revealed that HPWS positively influence all three dimensions of organisational memory and employee in-role performance, with organisational memory partially mediating the relationship between HPWS and employee in-role performance. However, the study was limited to the telecommunications industry and Dhofar region and did not examine the potential moderating effects of individual-level or contextual factors on the relationships among HPWS, organisational memory, and employee in-role performance. The study offers practical implications for organizations seeking to improve employee performance and overall effectiveness by highlighting the importance of implementing high-performance work systems and managing organisational memory effectively. This study contributes to the literature on the relationships among HPWS, organisational memory, and employee in-role performance, providing valuable insights into the dynamics of organisational effectiveness.

**Keywords:** High-performance work systems; employee in-role performance; managerial memory; technical memory; cultural memory.

#### 1. Introduction

In the rapidly transforming telecommunications landscape, characterized by swift technological advancements and evolving market dynamics (Chen et al. 2021; Mugge et al. 2020), understanding the strategic interplay of High-Performance Work Systems (HPWS), organisational memory, and employee in-role performance becomes paramount. Despite extensive research on each of these variables individually (Antunes and Pinheiro 2020; Choi et al. 2020; Dimple and Kuriakose 2023; Feiz et al. 2019; Hyder et al. 2022; Rasheed et al. 2023), there appears to be a notable gap in the literature in understanding their synergistic effects within the telecommunications sector—a sector increasingly defined by its rapid evolution and the imperative for effective information management (Davenport and Prusak 1998).

This research seeks to bridge this gap by exploring how the integration of HPWS and organisational memory influences employee in-role performance in the Omani telecommunications industry. Grounded in the Resource-Based View (Barney 1991) and the Dynamic Capabilities Theory (Teece et al. 1997), this study posits HPWS and organisational memory as pivotal strategic resources that, when effectively aligned, can significantly enhance employee performance.

HPWS, through targeted development and performance-based rewards, are hypothesized to bolster skills and motivation, thereby facilitating organisational learning and knowledge dissemination (Easa and Orra 2021; Kling 1995; Lawler III et al. 1998). Concurrently, organisational memory, central to sustained improvement and learning, aids in retaining and leveraging organisational knowledge for decision-making (Walsh and Ungson 1991). For the telecommunications industry, this implies robust knowledge repositories and efficient knowledge management systems pivotal for strategic decision-making, innovation, and adaptation to market shifts (Davenport and Prusak 1998).

The central research question—How does the synergy of HPWS and organisational memory influence enhanced employee in-role performance in the Omani telecommunications sector?— aims to uncover the nuanced mechanisms through which HPWS and organisational memory interact to drive performance. This inquiry is timely and relevant as the Omani telecommunications sector, reflective of broader trends, navigates significant technological and competitive transitions (Jude et al. 2023; Omantel May 28, 2023).

This study contributes to the theoretical discourse by elucidating the synergistic effects of HPWS and organisational memory on employee performance, extending the applicability of the Resource-Based View and Dynamic Capabilities Theory to the telecommunications context. It offers a novel perspective on how strategic HR practices and organisational

knowledge resources interact to enhance employee in-role performance, addressing a noted lacuna in the literature.

Practically, the findings will provide telecommunications firms with insights into leveraging HPWS and organisational memory as strategic levers for performance enhancement. This research underscores the importance of integrating HR practices with knowledge management strategies to foster a high-performance culture, directly aligning with Oman's Vision 2040 for national development and competitiveness in the telecommunications industry.

By delving into this intricate relationship, the study not only seeks to deepen our understanding of strategic HRM and knowledge management's role in organisational effectiveness but also contributes to the strategic management practices essential for navigating the challenges and opportunities presented by the digital age.

# 2. Literature review

# 2.1. Employee in-role performance

In-role performance refers to the extent to which employees execute their designated tasks, contributing directly to organisational objectives (Borman and Motowidlo 1997; Campbell 1990). The effectiveness and efficiency with which employees carry out their job responsibilities and contribute to organisational goals is known as in-role performance. Organisational success hinges on this performance, which reflects employees' skills and their impact on the organization's overall performance (Borman and Motowidlo 1997; Campbell 1990). Becker and Kernan (2003) assert that in-role performance is crucial for achieving organisational objectives.

Employees are central resources in the RBV (Barney 1991). Their performance, especially in their designated roles, directly contributes to the organization's resource pool. Dynamic capabilities (Teece et al. 1997), on the other hand, are exercised through organisational routines and practices involving specific roles, making employee in-role performance crucial.

Research has revealed that high-performance work systems are positively correlated with inrole employee performance (Jiang, Lepak, Han, et al. 2012; Takeuchi et al. 2007). The objectives of high-performance work systems are to enhance the expertise, competencies, and capabilities of employees, these systems aim to amplify their motivation and loyalty, and provide them with the requisite tools to accomplish their tasks proficiently (Boxall and Macky 2009; Posthuma et al. 2013). Consequently, employees working within high-performance work systems are expected to exhibit higher levels of in-role performance (Lepak et al. 2006). Recent studies have enriched our understanding of factors influencing in-role performance. Ugwoke et al. (2023) underscored the pivotal roles of psychological empowerment and work–life balance in enhancing the effects of transformational leadership on in-role performance. Meanwhile, Hyder et al. (2022) established the enhancing role of organisational justice, moderated by employee advocacy and mediated by organisational embeddedness. In the hospitality context, Kundi et al. (2023) revealed that paradoxical leadership positively impacts both in-role and extra-role performance, particularly through the mediation of work engagement. Furthermore, Chen and Haga (2022) highlighted the potential benefits of differential leadership combined with proactive personality traits, indicating that proactive employees could overcome barriers and excel in their roles, even under leadership favouritism.

#### 2.2. High performance Work Systems

High Performance Work Systems (HPWS) represent a set of human resource management practices aimed at enhancing employee skills, motivation, and engagement (Combs et al. 2006; Lawler III et al. 1998). Besides enhancing existing abilities and motivations, HPWS play a crucial role in fostering creativity and innovation, leading to the generation and accumulation of new knowledge within organizations (Miao and Cao 2019; Tang et al. 2017). This includes practices like continuous training and development, which go beyond mere skill enhancement. They create a fertile ground for innovation, encouraging employees to explore new methods and technologies (Jiang, Lepak, Hu, et al. 2012; Lawler III et al. 1998). Employee involvement is another key aspect of HPWS, leading to a culture of shared knowledge and collaborative innovation (Boxall and Macky 2009), where diverse ideas are pooled together, driving the organization towards innovative outcomes.

The AMO framework provides a useful lens for understanding how HPWS operate by focusing on improving abilities, enhancing motivation, and creating opportunities for employees (Jiang, Lepak, Hu, et al. 2012). Performance management within these systems is not limited to productivity but also encompasses innovation and creativity, rewarding efforts that contribute to knowledge creation and organisational learning (Guthrie 2001; Sun et al. 2007).

According to the Resource-Based View (RBV), firms can achieve competitive advantage by utilizing valuable, rare, inimitable, and non-substitutable resources (Barney 1991). HPWS, as a unique HRM strategy, contributes to a firm's resource pool, aligning with this perspective. Moreover, in line with the Dynamic Capability theory (Teece et al. 1997), HPWS plays a pivotal role in shaping and reconfiguring these capabilities, especially in the ever-evolving telecommunications sector. This adaptability and innovation are key elements of HPWS, enabling organizations to rapidly adapt and reconfigure their capabilities in response to changing market dynamics.

HPWS has been extensively studied in various industries and across different national contexts, with evidence suggesting a positive correlation between HPWS implementation and organisational performance (Guthrie 2001; Sun et al. 2007). Extending this global understanding, Phuong (2020) investigated the adoption and effectiveness of HPWS in Vietnam, focusing on the influence of organisational characteristics and CEO education. The study found that these factors positively impact the adoption of HPWS, which in turn positively associates with firm performance. This highlights the significance of HPWS in varying economic and cultural contexts, emphasizing its relevance in emerging economies like Vietnam. In the telecommunications sector, effective HPWS implementation can aid in developing and retaining valuable human capital, fostering innovation and learning, and enhancing employee performance (Datta et al. 2005; Jyoti and Rani 2017).

Research has demonstrated that HPWS practices can contribute to the development of employees' technical and interpersonal skills, enabling them to respond to changes in their workplace or customer demands more effectively (Kling 1995; Lepak et al. 2006). Moreover, performance-based rewards systems have been found to incentivize innovation and collaboration among employees, fostering a competitive advantage in the telecommunications sector (Easa and Orra 2021; Ngo et al. 1998).

As the telecommunications industry continues to evolve and face increasing competition, the adoption of HPWS practices is becoming more critical for organizations to remain competitive and achieve sustainable growth (Lee et al. 2012; Subramony 2009). Understanding the implementation and impact of HPWS within the telecommunications sector can provide valuable insights for organizations seeking to optimize their human resource management practices and enhance overall performance.

Recent research has deepened our comprehension of HPWS's impacts and mechanisms. Dorta-Afonso et al. (2023) discovered that HPWS directly bolsters job satisfaction in hospitality with burnout as a significant mediator. Haar and Harris (2023) explored the complex nexus between HPWS, job burnout, and insomnia, pinpointing work-life balance as a crucial moderating factor. Jo et al. (2023) showed how service-oriented HPWS influences service role performance through mediating factors like job-based psychological ownership in the hospitality sector. Adding nuance to the discussion, Wang and Chen (2022) illuminated how career goals moderate and shape the relationship between HPWS and job performance, identifying job crafting as a mediating factor. Meanwhile, Wang et al. (2022) delineated both the positive and negative perceptions employees have of HPWS, revealing its double-edged nature with regard to thriving at work and emphasizing the importance of servant leadership as a moderator. Cao et al. (2022) also delved into how HPWS can promote thriving at work, highlighting the mediating influence of a developmental climate and the moderating role of HPWS consensus. Collectively, these findings underscore the multifaceted impacts and intricate mechanisms of HPWS across varied organisational backdrops.

# 2.3. Organisational Memory

Within the Resource-Based View framework (Barney 1991), organisational memory can be considered a valuable organisational resource, providing firms with a historical repository of knowledge. From a Dynamic Capability perspective (Teece et al. 1997), organisational memory facilitates adaptability, allowing companies to draw on past experiences to navigate current challenges.

Organisational memory has garnered significant interest among practitioners and researchers in the area of organisational behaviour over the past few decades due to its substantial effect on decision-making, learning, and overall performance in organizations (Clewett et al. 2020). Organisational memory is a complicated and multifaceted concept, and despite the numerous studies conducted, a uniform definition remains elusive (Ackerman and Halverson 1998). Definitions can be categorized as technology-focused or process-focused (Conklin 1996; Walsh and Ungson 1991), with some researchers emphasizing the role of information technology and others highlighting the importance of social applications and processes.

**Technology-focused definitions:** Watson (1998) defined organisational memory as a technological composition. Jennex and Olfman (2001) described it as information stored from the past and used in current activities to make present decisions. Hackbarth and Grover (1999) viewed organisational memory as an abstract concept supported by tools such as databases and knowledge transfer mechanisms.

**Process-focused definitions:** Moorman and Miner (1997) and Van Stijn and Wensley (2001) defined organisational memory as the knowledge and information used by an organization for its operations, additionally, it is a repository of organisational history that can be consulted and utilized in decision making. Ackerman and Halverson (1998) claimed that the concept of organisational memory is confusing and contradictory, and proposed that organisational memory should be viewed as a mean of preserving and restoring organisational expertise. Sharma (2010) defined organisational memory as including information and knowledge stored in the organization, such as records, patents, intellectual property, copyright, trademark, fame, trade secrets, and other knowledge of the organization's current individuals, their work functions, and the tools necessary to identify or interpret information.

Given the various perspectives on organisational memory, for the purpose of this study, we define organisational memory as a blend of technological and process-focused repositories,

encapsulating both the tools (like databases) and the stored information (past experiences and knowledge) that an organization leverages for current decision-making and operations.

In recent years, the domain of organisational memory has seen enhanced exploration. Sen et al. (2023) conducted a noteworthy study on its presence in multi-cultural organizations, revealing that such memory, although individually static, transforms dynamically when intertwined with practices, especially under diverse cultural influences. Antunes and Pinheiro (2020), through a rigorous review of over 2500 articles, demystified the interplay between knowledge management, organisational learning, and memory. They suggest that while organisational learning is an active process, memory stands as its tangible result. Taking a broader lens, Foroughi et al. (2020) categorized the realm of organisational memory studies into four primary perspectives: functional, interpretive, critical, and performative, offering insights into the importance of both remembering and deliberate forgetting in shaping organisational procedures. On a different note, Cegarra-Navarro and Martelo-Landroguez (2020) navigated the delicate relationship of organisational memory with agility, highlighting how, despite its potential to enhance knowledge application, it might inadvertently foster counter-knowledge, risking organisational nimbleness.

Anand et al. (1998) proposed a classification of organisational memory that encompasses three components: managerial memory, technical memory, and cultural memory. These components play crucial roles in the storage, retrieval, and application of organisational knowledge, and are influenced by factors such as organisational culture, information technology, and organisational learning (Ackerman and Halverson 1998; Conklin 1996; Walsh and Ungson 1991).

#### 2.3.1. Managerial Memory

Managerial memory governs the organization's operations and workflows, and includes the organization's management practices and structures. It covers knowledge management, human resources management, strategic planning, crisis management, production management, document management, and employee training. Staff members need to be familiar with managerial organisational memory to understand the organization's fundamental strategies and management practices (Li et al. 2004).

#### 2.3.2. Technical Memory

Technical memory, as described by Leonard-Barton et al. (1993), consists of technical systems that have evolved over time, representing the beneficial outcomes of collective learning through the coordination of various production skill sets to create integration between an organization's technology and different techniques. It encompasses specialized professional knowledge, such

as technology and related expertise, including product development, production control, information programming, control systems, and IT applications. Technical organisational memory is considered specialized professional information and knowledge embedded in an organization's work processes, reflecting the logic of transforming inputs into desired outputs (Li et al. 2004).

# 2.3.3.Cultural Memory

Cultural memory is characterized as the mental wealth accumulated as a company develops. It manifests itself throughout the organization, encompassing aspects such as the organization's history, shared values, informal structures, customs, and traditions. Schein (1996) defined cultural memory as an expression of an organization's history and present state, influenced by external culture, and inherently resistant to change. Furthermore, cultural memory is shaped by individual actions, as it guides their behaviour and is understood and practiced by all members of the organization.

Drawing from the RBV (Barney 1991), an organization that efficiently implements HPWS can enrich its resource base, with organisational memory being a key intangible asset. Furthermore, the Dynamic Capability theory can shed light on how HPWS, as a dynamic routine, can influence the evolution and utilization of organisational memory for competitive advantage.

# 2.4. High-Performance Work Systems and Organisational Memory

In the literature on organisational behaviour and human resource management, there is growing interest in the relationship between High-Performance Work Systems (HPWS) and organisational memory. HPWS not only utilize existing knowledge within an organization but also contribute significantly to the generation of new knowledge and ideas. This dual role of HPWS is crucial in practices like continuous training and employee engagement, which not only enhance but also create knowledge, fostering innovative outcomes and critical reflection (Miao and Cao 2019; Tang et al. 2017; Tran Huy 2023a, 2023b). These practices aim to boost employee skills, motivation, and engagement, while organisational memory plays a pivotal role in retaining, managing, and applying knowledge, aiding in decision-making, learning, and overall performance.

As noted by Boxall and Macky (2009) and Posthuma et al. (2013), HPWS, with its interconnected and complementary practices, primarily aims to boost employee skills, motivation, and engagement. In contrast, Organisational memory, on the other hand, plays a pivotal role in retaining, managing, and applying knowledge, which further aids in decision-

making, learning, and overall performance in organizations (Clewett et al. 2020; Walsh and Ungson 1991).

Several studies have examined the correlation between HPWS and knowledge management, which is closely related to organisational memory. For instance, Collins and Smith (2006) found that HPWS positively influenced the knowledge-sharing behaviour of employees, which in turn enhanced organisational performance. Similarly, Chang et al. (2014) revealed that HPWS facilitated knowledge management by promoting employee engagement in knowledge creation, sharing, and application activities. These studies underscore the vital role of HPWS in not only leveraging but actively enriching organisational memory with new insights and practices.

From the perspective of the Resource-Based View (RBV), HPWS, as a unique HRM strategy, serves as a valuable resource that could enhance the facets of organisational memory, including its capacity for knowledge creation and innovation (Barney 1991). HPWS, being a unique HRM strategy, serves as a valuable resource that could enhance the facets of organisational memory. Practices in HPWS, such as training, directly contribute to the accumulation of technical and managerial memory in organizations. Additionally, continuous training under HPWS can lead to the accumulation of technical know-how, adding to the technical memory (Becker 1998). This underscores the importance of training as a pivotal HR practice within HPWS in fostering an organization's technical memory. Studies have shown that companies like Toyota with effective HPWS have a rich organisational memory that they tap into for continuous improvement (Liker 2021).

By extension, a positive impact of HPWS on organisational memory may also be inferred. A culture of continuous learning and knowledge sharing can be fostered within an organization through high-performance work practices, such as targeted training and development, performance-based rewards, and employee involvement (Jiang, Lepak, Han, et al. 2012). This culture can contribute to the development and maintenance of organisational memory by encouraging the retention and application of knowledge, as well as promoting organisational learning and adaptation (Argote and Miron-Spektor 2011).

Moreover, HPWS can indirectly influence organisational memory by shaping the organization's culture and structure (Denison et al. 2003). By promoting employee autonomy and participation in decision making, HPWS practices can foster a culture of knowledge sharing and learning (Carmeli and Schaubroeck 2007). This can, in turn, enhance the ability of the organization to capture, store, and retrieve valuable knowledge and information, ultimately strengthening its organisational memory (Kang et al. 2007).

Supporting this global perspective on the multifaceted benefits of HPWS, Riaz (2016) conducted a comprehensive study in Pakistan, examining the impact of HPWS on organisational performance across manufacturing and service sectors. The study's findings underscore that HPWS not only bolster organisational performance but also promote human capital development, social exchange, and relational coordination, further emphasizing HPWS's broad positive impact on organisational outcomes.

In summary, the relationship between HPWS and organisational memory is an attractive field of research that warrants additional exploration. Understanding how HPWS can impact organisational memory, especially in its role in fostering knowledge creation and innovation, offers researchers and practitioners opportunities to develop more effective strategies for managing human capital and knowledge resources. As the business environment rapidly changes, this understanding will lead to superior organisational performance.

# 2.5. High-Performance Work Systems, Organisational Memory and Employee in-role Performance

Employee in-role performance refers to the extent to which employees fulfill their job responsibilities and contribute to organisational objectives (Becker and Kernan 2003). This performance directly impacts an organization's strategic goals, such as achieving sales targets. In-role performance is crucial for organisational success as it reflects the effective and efficient execution of job duties (Borman and Motowidlo 1997; Campbell 1990).

High-performance work systems (HPWS) play a key role in enhancing workforce potential. By providing continuous training, a feedback-rich environment, and promoting teamwork, HPWS equip employees to meet or exceed job requirements, thus improving in-role performance (Jiang, Lepak, Han, et al. 2012; Takeuchi et al. 2007). Regular training sessions, for instance, keep employees updated with industry standards, resulting in heightened performance.

HPWS improve employees' skills, abilities, knowledge, motivation, commitment, and resource access, leading to higher in-role performance (Boxall and Macky 2009; Lepak et al. 2006; Posthuma et al. 2013). Moreover, the integration of HPWS with organisational memory not only utilizes existing knowledge but also fosters the creation and application of new knowledge, contributing to enhanced in-role performance (Argote and Miron-Spektor 2011).

Organisational memory, a repository of the organization's collective experience and knowledge, is a potent tool for employee performance. Through the lens of the Resource-Based View, organisational memory acts as an internal resource that equips employees with historical insights, reducing the learning curve and aiding in swift decision-making (Barney 1991). It offers a reservoir of historical knowledge and best practices, enabling employees to avoid past

mistakes and build upon previous successes. This seamless access to historical data directly supports and enhances employee in-role performance, as they can make informed decisions based on prior experiences and insights (Ackerman and Halverson 1998). Imagine an employee facing a recurring issue that was resolved a decade ago. Instead of starting from scratch, they can leverage this institutional memory, making their problem-solving process faster and more efficient (Argote and Miron-Spektor 2011; Walsh and Ungson 1991). In essence, organisational memory bridges the past and the present, reducing repetitive mistakes and streamlining decision-making processes (Kang et al. 2007).

Employee in-role performance, pivotal for achieving organisational objectives, is significantly influenced by the strategic implementation of High-Performance Work Systems (HPWS) and the effective use of organisational memory. HPWS not only facilitate the enhancement of workforce capabilities through continuous training, teamwork promotion, and a feedback-rich environment but also play a critical role in nurturing an innovative and learning-oriented organisational culture.

Recent research underscores the multifaceted impact of HPWS on organisational outcomes. For instance, Mehralian et al. (2022) found that HPWS practices focused on enhancing abilities, motivations, and opportunities were positively associated with organisational learning, which in turn improved innovation performance. This study illustrates how HPWS serve as foundational elements for fostering an environment conducive to learning and innovation, reinforcing the link between HPWS and enhanced organisational capabilities.

Furthermore, Rehman et al. (2023) emphasized the strategic significance of HPWS in building knowledge capital within Professional Service Firms (PSFs), highlighting the indispensable role of HPWS in managing intellectual capital resources. This research offers a conceptual framework showcasing how HPWS guide the development of intellectual capital, thereby supporting the transformation towards a knowledge-smart workforce and sustainable competitive advantage. This insight is crucial for understanding the broader implications of HPWS on knowledge management and intellectual capital, both key components of organisational memory.

Dastmalchian et al. (2020) expanded this perspective by examining the relationship between HPWS and organisational performance across different societal cultures. Their findings suggest that HPWS and their components, based on the Ability–Motivation–Opportunity (AMO) model, positively influence organisational performance irrespective of cultural differences. This global applicability of HPWS practices underscores their value in enhancing organisational performance through skill, motivation, and opportunity enhancement across diverse cultural settings.

Integrating HPWS with organisational memory not only leverages existing knowledge but also promotes the creation and application of new knowledge, thus contributing to enhanced in-role performance. Organisational memory acts as a vital internal resource, providing employees with historical insights and best practices. This repository of collective experience and knowledge enables employees to make informed decisions, streamline problem-solving processes, and avoid past mistakes, thereby directly supporting and enhancing employee inrole performance.

The empirical evidence presented by Mehralian et al. (2022), Rehman et al. (2023), and Dastmalchian et al. (2020) provides compelling support for this relationship, highlighting the significant role of HPWS in fostering a learning-oriented and innovative environment, building knowledge capital, and achieving superior organisational performance across cultural contexts. This alignment of HPWS with organisational memory not only optimizes workforce capabilities but also ensures that organizations can navigate the complexities of the modern business environment more effectively, achieving sustained competitive advantage.

In summary, employee in-role performance is a critical aspect of organisational success, and both high-performance work systems and organisational memory contribute significantly to enhancing employee performance in this regard. The integration of up-to-date research findings with the foundational concepts of HPWS and organisational memory underscores the dynamic interplay between these elements, enriching our understanding of their pivotal roles in driving organisational success.

# 3. Hypotheses Development

The Resource-Based View (RBV) posits that organizations achieve sustainable competitive advantage by developing and deploying resources that are valuable, rare, inimitable, and non-substitutable (Barney 1991). High-Performance Work Systems (HPWS) represent such resources through synergistic HRM practices. This concept is further exemplified by studies demonstrating HPWS's role in enhancing firm performance through the development of employee skills, motivation, and engagement (Combs et al., 2006; Lawler III et al., 1998). Training and development, performance management, and employee involvement are pivotal in enriching organisational memory, a notion supported by Collins and Smith (2006) and evidenced in the broader impacts on organisational capabilities and innovation (Miao and Cao, 2019; Tang et al., 2017). Reflecting on the findings of Mehralian et al. (2022), which demonstrate the positive impact of HPWS on organisational learning and innovation performance, it's evident that HPWS practices directly contribute to enhancing organisational memory components.

H1: HPWS are positively influencing (a) managerial memory, (b) technical memory, and (c) cultural memory.

According to the Dynamic Capability Theory (Teece et al. 1997), firms can gain a competitive edge by harnessing and reconfiguring internal and external competences to address rapidly changing environments. HPWS, as a dynamic capability, equips employees with the requisite skills and motivation, positioning them to exhibit superior in-role performance. Practices such as performance-based rewards and selective recruitment ensure that employees are both motivated and capable of delivering their roles efficiently (Jiang, Lepak, Hu, et al. 2012). The strategic significance of HPWS in fostering knowledge capital, as highlighted by Rehman et al. (2023), underscores the role of HPWS in enhancing employee performance through skill and motivation enhancement. The research further correlates with studies like those by Takeuchi et al. (2007), which link HPWS practices to higher levels of employee performance, demonstrating the critical role of HPWS in fostering an adaptable and skilled workforce.

H2: HPWS are positively influencing employee in-role performance.

Organisational Memory is conceptualized as a repository of past experiences that inform current actions, enhancing decision-making and strategic direction (Walsh and Ungson 1991). It encompasses managerial memory, which provides strategic insights; technical memory, which offers technical know-how; and cultural memory, which instills guiding values and norms. This is enriched by HPWS, which facilitate the development of a knowledgeable and adaptable workforce, as seen in the positive correlations between HPWS and in-role employee performance (Jiang et al. 2013; Takeuchi et al. 2007). Furthermore, the role of organisational memory in guiding employee behaviour and performance is echoed in the work of researchers like Ugwoke et al. (2023) and Hyder et al. (2022), who explore the influences of psychological empowerment and organisational justice on employee performance is bolstered as they learn and adapt from the rich tapestry of organisational memory. This hypothesis aligns with the work of Sen et al. (2023), who found that organisational memory's dynamic interplay with cultural practices enhances employee performance.

H3: (a) managerial memory, (b) technical memory, and (c) cultural memory are positively influencing employee in-role performance.

Combining insights from RBV and Dynamic Capability Theory, HPWS can be seen as a strategic resource that not only directly enhances employee performance but also does so indirectly by enriching the organisational memory. This memory, as a reservoir of knowledge and past experiences, guides employees in their roles. Thus, while HPWS lays down the infrastructure for performance enhancement, the organisational memory ensures its sustained

application, acting as a conduit between the two (Jiang, Lepak, Han, et al. 2012). This relationship is supported by a wealth of studies, including those by Datta et al. (2005) and Jyoti and Rani (2017), which highlight the effectiveness of HPWS in various contexts, from fostering innovation to enhancing employee skills and performance. Organisational memory serves as a mediator in this relationship, leveraging past knowledge to guide current and future performance.

H4: Organisational memory mediates the relationship between HPWS and employee enhanced inrole performance.

#### 4. Methodology

#### 4.1. Data Collection and Sample Profile

The study aimed to investigate the interplay between High-Performance Work Systems (HPWS), organisational memory, and employee in-role performance within the telecommunications sector of Oman. The target population was meticulously chosen to represent employees at various hierarchical levels and functional departments within this sector, focusing on three leading telecommunications companies: Omantel, Ooredoo, and Vodaphone. These companies were selected for their substantial market presence, expansive operations, and their pioneering adoption of HPWS, as confirmed by discussions with HR representatives. Their significant roles in the capitals Muscat and Salalah, within the strategic Dhofar Governorate, make them emblematic of the sector's national landscape, thus providing a robust basis for examining the sector's dynamics and deriving insights.

To ensure a representative and unbiased sample from this target population, a stratified random sampling strategy was employed. This approach involved treating each company as a distinct stratum to ensure the sample mirrored the diversity within the entire population of telecommunications sector employees in Oman. Company administrators facilitated the random distribution of the survey link among their employees, thereby ensuring an equitable chance of participation across different levels and departments. This methodology not only optimized the efficiency of the sampling process in terms of time and cost but also enhanced the diversity and representativeness of the sample.

The final sample size amounted to 204 respondents, distributed as 87 from Omantel, 71 from Ooredoo, and 46 from Vodaphone. This sample composition was deemed adequate for the study's analytical needs, providing a balanced cross-section of the sector's workforce. The determination of the sample size was guided by the principles of statistical representativeness and the feasibility of data collection within the study's timeframe and resources. Each

participating company's contribution to the sample was proportional to its size and employee base, thereby ensuring that the sample was reflective of the broader industry composition.

In strict adherence to ethical research standards, all participants were fully briefed on the study's objectives and assured of their rights to voluntary participation and withdrawal at any point. Measures were taken to guarantee the anonymity and confidentiality of the responses, with no personal identifiers collected or associated with the data. This ethical rigor underscores the commitment to integrity and respect for participant privacy throughout the research process.

#### 4.2. Measurement of Variables

The survey utilized a 5-point Likert scale for responses, with options ranging from "strongly agree" to "strongly disagree." This scale format was chosen for its ability to capture the intensity of respondents' attitudes towards the statements presented, facilitating a nuanced analysis of their perceptions and behaviours related to the workplace.

**High-Performance Work Systems (HPWS):** The HPWS scale, adapted from Appelbaum et al. (2000), is designed to assess various aspects critical to creating a high-performance work environment. This scale includes items related to selection processes, employee autonomy, training and development, innovative suggestions, decision-making participation, and performance management. For example, one item states, "the company focuses on equipping employees with the skills required to perform their tasks within a high-performance work environment." The choice of items and their number were based on their ability to comprehensively cover the key facets of HPWS as identified in the literature, ensuring a multidimensional assessment of the construct.

**Organisational Memory:** Derived from previous literature (Al-Baghdadi 2007; Li et al. 2004), the organisational memory scale is segmented into three components to capture the multifaceted nature of organisational memory effectively:

Managerial Memory (5 items): This component reflects actions taken to enhance the delegation and knowledge within the workforce. An example item is, "I implement actions to increase the level of delegation and knowledge of the workforce."

Technical Memory (6 items): Focused on the utilization of technology to support organisational functions, such as integrating customer service and support through the Internet.

Cultural Memory (5 items): This component addresses the adherence to and perpetuation of organisational values and culture, with items like, "I adhere to behaviours stemming from the values and culture of the organization." **Employee In-role Performance:** A 6-item scale, adapted from Williams and Anderson (1991), measures the extent to which employees fulfil their job responsibilities and duties, exemplified by the item, "Adequately completes assigned duties."

# 5. Data Analysis and Findings

SPSS and WarpPLS programs were used to analyse the collected data. Preliminary descriptive analysis was conducted to verify basic statistical hypotheses and to examine the characteristics of the study sample according to demographic variables.

#### 5.1. Descriptive Statistics

The study collected data from employees working in the telecommunication sector in Oman using an online survey. The descriptive statistics for the five latent constructs were computed using SPSS. The majority of the sample (84%) were males, and 72% were below the age of 40. The sample mainly consisted of employees (62%) with a bachelor's or postgraduate degree (61%) and with at least five years of experience in the telecommunication sector (75%). Managerial Memory (MM) had the highest mean of 4.53 with a standard deviation of 0.58, followed by Cultural Memory (CM) with a mean of 4.06 and a standard deviation of 0.61. Technical Memory (TM) had a mean of 3.99 with a standard deviation of 0.71. Enhanced Performance (EP) had a mean of 4.14 with a standard deviation of 0.425, while High Performance Work Systems (HPWS) had a mean of 3.97 with a standard deviation of 0.576. The results revealed that the means of all constructs were lower than Managerial Memory, which had the highest mean among the constructs.

#### 5.2. Validity and Reliability Analysis

The validity and reliability analysis of the research constructs are presented in Table 1. The outer loading values for all constructs were found to be greater than 0.6, meeting the acceptance criteria as per Hair Jr et al. (2020). The internal consistency of the items was evaluated using Cronbach's alpha composite reliability (CR), and average extracted variation (AVE). All constructs showed AVE values above 0.5, with Enhanced Performance receiving the highest value (0.706) and cultural organisational memory receiving the lowest value (0.505).

The item loading values ranged from 0.619 to 0.850 which are acceptable. AVE value is higher than 0.6 (Hair Jr et al. 2010). Items that did not meet the previous requirements were removed.

# 5.3. Assessment of Common Method Bias

Given the potential concerns around common method bias, particularly in studies utilizing self-reported data, we conducted a Harman Single Factor test. This test is designed to assess the severity of common method bias by examining the total variance explained by a single factor. In our study, the results of the Harman Single Factor test revealed that the first factor accounted for 37.07% of the total variance, with an initial eigenvalue of 9.638. Considering that this value is less than the threshold of 50%, it suggests that common method bias is not a severe issue in our study (Podsakoff et al. 2003). These results provide confidence in the integrity and validity of our findings, as the observed relationships are not unduly influenced by common method bias.

Table 1         Measurement model assessment								
Latent construct	Item	Normalized Loading	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)			
High performance work systems (HPWS)	HPWS <sup>1</sup>	(0.712)						
	HPWS <sup>2</sup>	(0.686)						
	HPWS <sup>3</sup>	(0.669)						
	HPWS <sup>4</sup>	(0.678)	(0.678)					
	HPWS <sup>5</sup>	(0.715)			0.548			
	HPWS <sup>6</sup>	(0.704)	0.917	0.930				
	HPWS <sup>7</sup>	(0.720)						
	HPWS <sup>8</sup>	(0.666)						
	HPWS <sup>9</sup>	(0.648)						
	HPWS <sup>10</sup>	(0.642)						
	HPWS <sup>11</sup>	(0.687)						
Managerial	$MM_1$	(0.703)	(0.703)					
Memory	MM <sub>3</sub>	(0.682)	0.622	0.799	0.570			
(MM)	MM4	(0.841)						
Technical Memory (TM)	TM <sup>1</sup>	(0.669)						
	$TM^3$	(0.667)	.667) 0.748 0.857 .694)		0.667			
	TM <sup>6</sup>	(0.694)						
	$CM^1$	(0.657)						
Cultural Memory (CM)	$CM^2$	(0.649)	0.754 0.836		0.505			
	CM <sup>3</sup>	(0.660)						
	CM <sup>4</sup>	(0.706)						
	CM <sup>5</sup>	(0.619)						
	EP <sup>1</sup>	(0.792)		0.000	0.700			
Enhanced	EP <sup>2</sup>	(0.770)	0.000					
Performance	EP <sup>3</sup>	(0.840)	0.860	0.906	0.706			
	EP <sup>4</sup>	(0.850)						

Note: MM2, MM5, TM2, TM4, & TM5 were dropped due to low loading.

# 5.4. Discriminant Validity

In order to assess the discriminant validity of the research variables, the Fornell-Larcker Criterion was employed, and the results are presented in Table 2. As per the results, each variable's intersection with itself in the Fornell-Larcker matrix outweighed all other values with the studied variables. Therefore, the Fornell Larker test has satisfied the requirements of discriminant validity and the quality of the studied model. The variables were found to have a higher correlation with themselves, which indicates their strength and validity compared to other variables, thus providing evidence of discriminant validity.

Table 2         Fornell-Larcker Criterion							
	MM	TM	CM	EP	HPWS		
Managerial Memory (MM)	(0.755)						
Technical Memory (TM)	0.546	(0.817)					
Cultural Memory (CM)	0.515	0.609	(0.711)				
EP	0.218	0.381	0.430	(0.841)			
HPWS	0.409	0.602	0.671	0.372	( <b>0.740</b> )		

# 5.5. Structural Equation Modelling (SEM) Results

For testing the hypothesized relationships between high-performance work systems (HPWS), organisational memory (managerial, technical, and cultural memory), and employee in-role performance, the structural equation modelling (SEM) technique was used. The results of the SEM analysis are presented in Figure 1 and in the table below:

	Hypotheses	β	T Statistics	P Values	Decision	( <b>R</b> <sup>2</sup> )	(Q <sup>2</sup> )	
H1a	HPWS -> MM	0.445	6.925	< 0.001	Supported**	0.198	0.216	
H1b	HPWS -> TM	0.607	9.732	< 0.001	Supported**	0.368	0.392	
H1c	HPWS -> CM	0.697	11.368	< 0.001	Supported**	0.486	0.496	
H2	HPWS -> EP	0.216	3.220	< 0.001	Supported**			
H3a	MM -> EP	-0.139	-2.035	0.022	Supported*			
H3b	TM -> EP	0.118	1.728	0.043	Supported*	0.232	0.334	
H3c	CM -> EP	0.238	3.549	<0.001	Supported**			
H4	HPWS -> OM-> EP	0.176		0.005	Partial Mediation			

 Table 3 Hypotheses (direct effect) T Statistics and P values

Significant at *P*\*<0.05, *P*\*\*<0.01

The results indicate that HPWS have a significant positive influence on managerial memory (H1a:  $\beta = 0.445$ , p < 0.001), technical memory (H1b:  $\beta = 0.607$ , p < 0.001), and cultural memory (H1c:  $\beta = 0.697$ , p < 0.001). These results support Hypotheses 1a, 1b, and 1c, providing evidence that HPWS positively impact different aspects of organisational memory. The SEM analysis also reveals that HPWS have a significant positive influence on employee in-role performance (H2:  $\beta = 0.216$ , p < 0.001), supporting Hypothesis 2.

Regarding the influence of organisational memory on employee in-role performance, the results show that managerial memory has a significant negative effect (H3a:  $\beta = -0.139$ , p = 0.022), whereas both technical memory (H3b:  $\beta = 0.118$ , p = 0.043) and cultural memory (H3c:  $\beta = 0.238$ , p < 0.001) have a significant positive effect. Thus, Hypotheses 3a, 3b, and 3c are supported.

Lastly, the results demonstrate that organisational memory partially mediates the relationship between HPWS and employee enhanced in-role performance (H4:  $\beta = 0.176$ , p = 0.005), providing support for Hypothesis 4. The total effect of HPWS on employee in-role performance, accounting for both direct and indirect effects, was also significant ( $\beta = 0.392$ , p < 0.001). This finding suggests that HPWS not only directly influence employee in-role performance but also indirectly through organisational memory. This highlights the importance of organisational memory as a mediator in the relationship between HPWS and employee performance. In essence, the results demonstrate that investing in HPWS can positively impact employees' in-role performance, both directly and through the enhancement of various aspects of organisational memory.



Figure 1: Structural model with standardized estimated parameters

*Notes:*  $\beta$  = path coefficients; \*\* p < .01; \* not significant;  $R_2$  = variance explained by the model for the endogenous latent

#### 6. Discussion

In a landscape marked by rapid technological advances and competitive fervour, our voyage sought to unravel the complex tapestry interlinking High-Performance Work Systems (HPWS), organisational memory, and employee in-role performance within the vibrant telecommunications sector of Oman. Guided by the beacon of the AMO framework (Jiang, Lepak, Hu, et al. 2012), our results revealed that HPWS act not merely as tools but as catalysts that enhance employee performance by nurturing their abilities, motivations, and opportunities. This discovery illuminated the path to understanding how such systems intricately shape the dimensions of organisational memory—managerial, technical, and cultural—each resonating with the harmonies of past insights on HPWS's role in fostering knowledge sharing and organisational learning (Jiang, Lepak, Hu, et al. 2012; Sun et al. 2007).

As we delved deeper, drawing wisdom from the Resource-Based View (RBV) and the strategic essence of HRM practices, the narrative unfolded to show that HPWS, when woven into the fabric of organisational culture, lay the foundation for a rich tapestry of organisational memory (Lepak et al. 2006; Takeuchi et al. 2007). This saga of transformation underscores that through effectively managing human resources and nurturing a milieu of collaboration and continual learning, HPWS imbue organizations with the power to transcend conventional performance boundaries.

Our exploration further charted the positive impact of HPWS on employee in-role performance, echoing the chorus of previous studies that celebrated HPWS's role in elevating job satisfaction, commitment, and performance (Combs et al. 2006; Jiang, Lepak, Hu, et al. 2012). The magic of HPWS, as revealed through the lens of Dynamic Capability Theory, lies in its ability to bestow employees with agility and flexibility, empowering them to harness their competencies and soar to the zenith of performance. This revelation attested that a work environment enriched by HPWS is a crucible for employee engagement, empowerment, and skill development, ultimately catalysing enhanced performance (Guthrie 2001; Lepak et al. 2006)

Yet, regarding the influence of organisational memory on employee in-role performance, our findings indicate a significant negative effect of managerial memory, while both technical and cultural memory have significant positive effects. The negative relationship between managerial memory and employee in-role performance may be due to the rigidity and inflexibility of certain management practices, it may make it harder for employees to adjust to and deal with changes in the workplace (Ackerman and Halverson 1998). Drawing insights from Organisational Learning theory, a balance between retaining traditional knowledge and embracing innovations becomes critical. On the other hand, technical and cultural memory positively affect employee in-role performance, which can be attributed to the fact that these

aspects of organisational memory provide employees with valuable knowledge and expertise that can be used to improve their work processes and outcomes (Anand et al. 1998; Leonard-Barton et al. 1993).

Finally, our results demonstrate that organisational memory does not merely echo in the corridors of HPWS and employee performance but serves as a bridge, partially mediating their relationship, supporting Hypothesis 4. This finding suggests that HPWS not only directly impact employee in-role performance but also indirectly through the effects of organisational memory. Consistent with the knowledge-based view of the firm and extending from RBV, the underlying mechanism can be better understood. This is in line with the knowledge-based view of the organization, which posits that organizations can enhance their performance by effectively managing and leveraging their knowledge assets (Grant 1996). By fostering a supportive work environment and promoting knowledge sharing and learning, HPWS can enhance organisational memory, which ultimately may result in better employee performance (Argote and Miron-Spektor 2011; Sun et al. 2007).

Thus, our expedition through the realms of HPWS, organisational memory, and employee performance not only sheds light on the intricate mechanisms at play but also charts a course for future endeavours to harness these insights, propelling organizations toward a horizon of enhanced performance and strategic advantage.

# 7. Theoretical and Practical Implications

#### 7.1. Theoretical Implications

This study offers many theoretical implications for the areas of human resource management, organisational behaviour, and performance management. The uniqueness of our research lies in its multifaceted examination of how HPWS integrates with different aspects of organisational memory to impact employee in-role performance, a dimension that earlier studies have not significantly emphasized.

The primary theoretical contribution of this study emerges from its exploration of the synergistic effects of High-Performance Work Systems (HPWS) and organisational memory on employee in-role performance, a nuanced interplay that extends existing frameworks within human resource management and organisational behaviour (Combs et al. 2006; Jiang, Lepak, Han, et al. 2012; Tran Huy 2023a, 2023b). Our findings illuminate how HPWS, through their multifaceted impact on organisational memory—encompassing managerial, technical, and cultural dimensions—play a pivotal role in enhancing employee performance. This integration offers a novel perspective, enriching the Resource-Based View (Barney 1991) by evidencing

how strategic HR practices and organisational knowledge assets collectively contribute to performance optimization

Furthermore, our investigation into the multidimensional nature of organisational memory and its distinct effects on employee performance addresses a gap in the literature (Anand et al. 1998; Sen et al. 2023; Walsh and Ungson 1991). By delineating the specific impacts of managerial, technical, and cultural memory, this study provides a granular understanding that challenges and extends traditional conceptualizations of organisational memory. This nuanced differentiation enriches the theoretical discourse, offering a more comprehensive framework for examining the complex dynamics of organisational knowledge and its implications for employee outcomes.

Lastly, this research provides a more thorough knowledge of the mechanisms through which HPWS effects employee performance by demonstrating that organisational memory partially mediates the association between HPWS and employee in-role performance. This result is consistent with other study that indicated HPWS could affect employee outcomes directly and indirectly (Al-Ajlouni 2021; Jiang et al. 2013; Takeuchi et al. 2007). The mediating role of organisational memory, as brought forth by our study, refines our comprehension of the subtle ways HPWS operationalizes to affect outcomes, a layer of understanding that was relatively untouched in previous research endeavours.

Lastly, by demonstrating the mediating role of organisational memory in the relationship between HPWS and employee performance, our research clarifies the operational mechanisms through which HPWS exert their influence (Al-Ajlouni 2021; Jiang et al. 2013; Takeuchi et al. 2007). This insight significantly advances the Dynamic Capabilities Theory, suggesting that organisational knowledge acts as a dynamic capability that mediates the efficacy of systematic HR practices in achieving superior performance outcomes (Teece et al. 1997). Such findings not only augment our theoretical understanding of HPWS but also underscore the critical role of organisational memory as a lever for performance enhancement.

#### 7.2. Practical Implications

Firstly, the significance of adopting comprehensive high-performance work systems in organizations is demonstrated by the positive correlation between HPWS and organisational memory. To establish a working environment that supports the creation and retention of organisational memory, these systems may involve in the processes including selective recruiting, in-depth training, performance-based rewards, and employee empowerment (Boxall and Macky 2009; Pfeffer 1998).

Secondly, the study underscores the significance of focusing on different dimensions of organisational memory—managerial, technical, and cultural memory. Managers should recognize the value of each dimension and strive to develop and maintain them within the organization. For instance, by providing ongoing training and development opportunities, managers can improve the managerial and technical aspects of organisational memory. Simultaneously, organizations should foster a strong organisational culture that emphasizes shared values, traditions, and customs, thereby enhancing cultural memory (Schein 1996).

Thirdly, the finding that organisational memory partially mediates the relationship between HPWS and employee in-role performance suggests that organizations should not only focus on implementing HPWS practices but also actively manage their organisational memory. By effectively storing and retrieving organisational knowledge, organizations can better utilize the benefits of HPWS and ultimately improve employee performance.

Finally, the study suggests that managers should be mindful of the potential impact of managerial memory on employee in-role performance. This finding suggests that organizations should be cautious about over-relying on past managerial practices and should remain open to new ideas and approaches that can enhance employee performance (Levinthal and March 1993). Encouraging a culture of continuous learning and adaptability may help mitigate the negative impact of managerial memory on employee in-role performance (Eisenhardt and Martin 2000).

In summary, this study offers valuable insights for organizations aiming to improve employee performance through the implementation of high-performance work systems and effective management of organisational memory. By considering the multidimensional nature of organisational memory and its impact on employee performance, organizations can develop more targeted strategies to achieve their performance goals.

#### 8. Limitations and Future Study

This research has a number of limitations that should be addressed despite its contributions. Firstly, the cross-sectional design of the study restricts the identification of causal relationships between the variables. Longitudinal research designs would provide more robust evidence of causal relationships among HPWS, organisational memory, and employee in-role performance (Ployhart and Vandenberg 2010).

Secondly, the study utilized self-reported data, which could be influenced by social desirability bias and common method bias (Podsakoff et al. 2003); to mitigate these concerns, respondents were assured of the confidentiality of their responses, reducing the potential for response distortion. Furthermore, the questionnaire items were randomized to disrupt potential patterns

that might accentuate method biases. Future research could address these biases by choosing different sources to collect data, such as managers, employees, and organisational records, to triangulate the findings and provide more robust evidence.

Thirdly, the study focused on a specific industry and geographical region, which restricts the generalization of the results. To better understand how broadly applicable the study's findings are, future research might investigate the relationships between HPWS, organisational memory, and employee in-role performance in different sectors and regions.

Fourthly, the study examined only three dimensions of organisational memory: managerial, technical, and cultural memory. Future research could explore other dimensions of organisational memory, such as social memory or structural memory, to create a deep understanding of the topic (Walsh and Ungson 1991).

Lastly, the study focused on the mediating role of organisational memory in the relationship between HPWS and employee in-role performance. Future research could examine other potential mediators, such as organisational learning, employee engagement, or job satisfaction, in order to give better comprehension of the mechanisms through which HPWS influence employee performance.

In conclusion, this study offers valuable insights into the relationships between HPWS, organisational memory, and employee in-role performance. However, future research should address the limitations identified in this study and explore additional dimensions of organisational memory, potential mediators, and the generalizability of the findings across different industries and regions.

### 9. Summary

This research paper aimed to investigate the relationships between high-performance work systems (HPWS), organisational memory, and employee in-role performance. The study investigated the direct effects of HPWS on organisational memory dimensions (managerial, technical, and cultural memory) and employee in-role performance, as well as the mediating role of organisational memory in the relationship between HPWS and employee performance. The results of structural equation modelling showed that HPWS had a positive effect on all three aspects of organisational memory and employee in-role performance. Moreover, organisational memory played a small mediating impact in the relationship between HPWS and employee in-role performance.

The study extends comprehension of how HPWS impact employee performance, both directly and indirectly through organisational memory. The findings have practical implications for organizations seeking to improve employee performance and overall organisational effectiveness. Future research should address the study's limitations, such as the cross-sectional design, self-reported data, and the focus on a specific industry and region, to further advance our understanding of the complex relationships among HPWS, organisational memory, and employee in-role performance.

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**Dr. Moaz Gharib** is an Associate Professor of Business Administration at Dhofar University. An acclaimed researcher, he has published numerous papers in Scopus and Web of Science indexed journals, and has presented at various national and international conferences. Dr. Gharib has received the National Scientific Research Award in Oman and multiple university-level accolades. He has also supervised numerous master's and doctoral students and is actively involved in community service.

**Dr. Kamaal Allil**, a Senior Lecturer at the University of Hertfordshire, is a distinguished academic known for his expertise in business psychology and digital marketing. Dr. Allil holds a PhD in Digital Marketing and a Master in Marketing Analytics. His research predominantly explores the intersection of marketing and business psychology, emphasizing consumer behaviour, digital marketing strategies, and business analytics.