European Management Journal xxx (xxxx) xxx

Contents lists available at ScienceDirect

European Management Journal

journal homepage: www.elsevier.com/locate/emj

HRM, institutional complementarities, and performance: The case of the healthcare sector in Jordan

Tamara Mohammad [a], Tamer K. Darwish [b,c,*], Osama Khassawneh [d], Geoffrey Wood [e,f]

[a] American University in the Emirates, College of Business Administration, Dubai International Academic City, P.O. Box: 503000, Dubai, United Arab Emirates
[b] The Business School, University of Gloucestershire, Gloucester, GL2 9HW, UK
[c] Gulf Financial Center, Gulf University for Science and Technology, 32093, Hawally, Kuwait
[d] Department of Leadership & People Management, University Canada West, Vancouver, Canada
[e] DAN Department of Management & Organizational Studies, Western University, DAN Management, 1151 Richmond St, London, ON, N6A 3K7, Canada
[f] Management School, University of Bath and Cranfield University, UK

ARTICLE INFO

Keywords:
Comparative capitalism
Complementarities
Healthcare
HRM
Organizational performance
Middle East

ABSTRACT

Building on the comparative capitalism literature, we aim to understand the impact of HRM practice on hospitals performance within the healthcare sector in Jordan, and the role of HRM in mitigating and overcoming systemic shortfalls. Two different surveys were distributed for both hospital and HR managers across all hospitals. Our findings indicate that certain HR practices are positively associated with performance, despite contextual challenges such as informal networks and cultural limitations that could undermine efficiency. We further tested the potential impact of HR complementarities on performance; nevertheless, the results did not significantly surpass the explanatory power of the individual HR practices. It might have been anticipated that mutually supportive bundles of practices might compensate for systemic weaknesses. However, it may be the case that players have devised solutions in other areas of managerial practice that may be more effective than HRM in compensating for systemic limitations. Our study also highlights that in oligopolistically structured markets, common in private healthcare systems, the effectiveness of HR practices may be less crucial for profitability, though this does not diminish their broader relevance for societal and community outcomes which are beyond the scope of this work.

1. Introduction

The existing body of literature underscores the significance of HRM as a vital source of competitive advantage, suggesting that the efficacy of HRM is greatly enhanced by the integration of practices rather than the implementation of isolated practices (Brewster, 2013; Darwish et al., 2020). Yet, there are many instances where firms continue to do well, even when one or other seemingly indispensable practice is abandoned. Moreover, there is a prevailing argument that integrated HRM practices are predominantly observable in developed countries, contrasting sharply with emerging economies where institutional frameworks are often less developed, and many firms resort to an ad hoc coping mode (see, for example, Webster & Wood, 2005; Hancke et al., 2007; Darwish et al., 2020; Al Jawali et al., 2022). Within emerging markets, it may be the case that the integration of practices may arise out of the conscious choices of firms and other economic agents to try and find ways of compensating for systemic shortfalls, rather than an outcome of serendipity or the unanticipated consequences of institutional design (e.g., Boyer, 2005; Streeck, 2005). This may be through specific organizational practices or simply emerging patterns of collective behavior (Boyer, 2005; Crouch, 2005). While conclusive evidence is lacking, this might suggest that integrated HR paradigms may emerge on a bottom-up basis, possessing potential for system-wide diffusion. If complementarities emerge and coalesce, the resulting system may benefit firms more than initially perceived, as recognizing known shortfalls and any potentially hidden advantages allows for mitigation through innovative practices. This study explores how HR practices may confer material advantages in challenging institutional circumstances, focusing on the case of the healthcare sector in Jordan, and draws out the implications for theorizing and practice.

We build on the comparative capitalism literature (e.g., Hall & Soskice, 2001; Lane & Wood, 2009; Lincoln & Kalleberg, 1990; Whitley,

* Corresponding author.
E-mail addresses: Tamara.mohammad@aue.ae (T. Mohammad), tdarwish@glos.ac.uk (T.K. Darwish), osama.khassawneh@ucanwest.ca (O. Khassawneh), gwood23@uwo.ca (G. Wood).

https://doi.org/10.1016/j.emj.2024.04.008
Received 14 July 2023; Received in revised form 7 April 2024; Accepted 18 April 2024
Available online 22 April 2024
0263-2373/© 2024 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

1999). This literature suggests that national economies may be categorized according to institutional features, which in turn are linked to dominant systems of industrial relations and HRM practices. The varieties of capitalism (VoC), as outlined by Hall and Soskice (2001), categorize nations based on the extent to which corporations rely on business or strategic cooperation modes. Initially focused on advanced industrial democracies, the VoC literature classified the latter into Liberal Market Economies (LMEs) and Coordinated Market Economies (CMEs) (Hall & Soskice, 2001). This framework was then expanded to include emerging markets, aiming to identify regional archetypes. Common to these accounts is the idea that institutions in emerging markets are less closely coupled, and economies are distinctly segmented, most notably between large, more closely regulated firms, and large and poorly regulated informal and small business sectors (see Wood & Frynas, 2006; Wood & Horwitz, 2015). The VoC literature on the mature economies highlights dense ties between formally constituted actors (e.g., firms, unions, training institutions, etc.) as a desirable feature in facilitating incrementally innovative production paradigms in CMEs. In contrast, extensions of the literature to emerging markets highlights the prevalence of extended informal networks of support; these may help compensate for systemic deficiencies, but owing to their informal and personal based nature, may also undermine regulation and formally constituted firm policies (Wood et al., 2011).

Central to the VoC literature is the notion of institutional complementarity, which holds that combinations of rules and practices may work much better together in building on systemic strengths and compensating for weaknesses than an analysis of each component might suggest (Crouch, 2005; Hall & Soskice, 2001). This may help explain the persistence of institutional diversity; more than one recipe is viable at any time. The early VoC literature argued that complementarities are most pronounced in the mature economies (Hall & Soskice, 2001). However, developments of the literature not only highlighted the robust performance of many emerging markets, but also how, under the most seemingly inhospitable circumstances, seemingly dysfunctional institutional regimes may work quite well for insiders and specific firms (Wood, Darwish, Alanezi, & Singh, 2020). In other words, even if institutional arrangements may appear sub-optimal, aspects of them may work quite well, or at least, open up spaces for locally appropriate solutions for specific firms (Wood et al., 2011). Hence, although economic accounts often focus on seemingly unbridgeable institutional voids in many emerging markets, this does not rule out that some firms and/or sectors may devise quite viable solutions around practices that are appropriate to local conditions and are at least compatible with the formal and informal regulatory environment (Cooke et al., 2019; Stephan et al., 2015).

Intrigued by this conversation, our study ventures further into the context of Jordan, an epitome of an emerging market characterized by weaker institutional infrastructures. It could be argued that firm level choices made in order to compensate for systemic weaknesses may diffuse across specific sectors, drawing insights from Lane and Wood (2009) and Crouch et al. (2009). We explore how this may play out using the example of HRM in healthcare in Jordan, and how, in turn, this may serve as a means of facilitating greater organizational effectiveness. Healthcare is an established sector, in this instance, characterized by a lack of adversarial competition, which might be conducive to inter-organizational dialogue and the sharing of best practices. We focus on Jordan, as it is a relatively stable emerging market, but has known systemic shortfalls (e.g., Melhem & Darwish, 2023). Although located in the Middle East, Jordan diverges from the petrostates model, sparing it from the complexities of the resource curse. This phenomenon, observed in oil-rich nations, often leads to underperformance relative to what might be expected given their wealth from oil and gas revenues (Robinson et al., 2006; Singh et al., 2019; Wood, Darwish, Alanezi, & Singh, 2020). It has been argued that the resource curse is linked to lopsided economic development, impeding human capital development and the creation of unproductive public sector jobs to maintain political stability, thereby limiting opportunities for locals in more productive sectors of the economy (Wood et al., 2020; Robinson et al., 2006). Nations in the region without significant oil and gas revenues may still have to contend with institutional shortfalls and the challenges of securing economic development, but do not have to contend with a single sector, oil and gas, drawing away skills and investment capital from all others.

This paper is organized as follows: We begin by discussing the existing literature connecting HRM, institutional complementarity, and varieties of capitalism. This is followed by an exploration of HRM in the Jordanian context and the formulation of our hypotheses. We then describe our research context and methodology, present our findings, and conclude with a discussion of these results and their implications for both theory and practice.

2. Literature review and hypotheses development

2.1. HRM, institutional complementarity and varieties of capitalism (VoC)

As noted above, the comparative capitalism literature, including seminal works by Lincoln and Kalleberg (1990), Whitley (1999), Hall and Soskice (2001), and Lane and Wood (2009), demonstrates that national economies are organized in diverse ways, influencing industrial relations and HRM practices. Hall and Soskice's (2001) varieties of capitalism (VoC) framework categorizes economies into Liberal Market Economies (LMEs) and Coordinated Market Economies (CMEs). This dichotomy was initially applied to advanced industrial democracies and later expanded to encompass emerging markets (Wood & Frynas, 2006; Wood & Horwitz, 2015). The latter suggests that, rather than a general environment of dysfunctionality, institutions may still confer systemic benefits to some actors, while others may contrive solutions of their own that, in developing fixes for systemic shortfalls, may serendipitously gain advantages that might otherwise not be possible.

Complementarity may be broadly defined as a situation where an outcome is more optimal than an analysis of its constituent components or inputs (Crouch, 2005; Wood et al., 2014). 'Second wave' developments of the literature on comparative capitalism suggested that this was not necessarily a process of building on mutually supportive contextual strengths; complementarity may well arise when components compensate for each other's shortfalls (Crouch, 2005). Again, institutions are not perfectly coupled, and the interests of firms and other actors are never uniform. If the system works well for some firms and sectors, it may still impose potentially challenging constraints on such beneficiaries and may pose serious challenges for other actors.

Complementarity broadly involves a way of gaining advantages through systemic features, or findings ways of coping and benefitting from systemic shortfalls. It may exist at structural level or manifest itself through the choices of agents (Crouch, 2005). If complementarity is taken as compensatory phenomena, then, at an institutional plane, it could be argued that if institutions are broadly similar in terms of their effects, complementarity is either absent or unnecessary (Crouch, 2005). This, of course is an inversion of what the early literature on varieties of capitalism held, which was that complementarities were most common in the most advanced societies, with the most closely coupled and mutually supportive institutions (see Hall & Soskice, 2001). In short, it can be argued that complementarities are most necessary, and indeed visible, when systems work less well, rather than something that is a feature of the most mature and functional ones. Yet, it is well known that in even the most challenging circumstances, some firms may do quite well; this may be often less a function of an ability to evade systemic constraints, but to work effectively within them, making the best of the opportunities that are thrown up. Again, the early literature on varieties of capitalism placed the firm at the center of its analysis, but rather depicted it as something of a transmission belt, with institutional features impacting on what organizations do, leading to economic and social consequences (good or ill) (Wood et al., 2014). However, within

emerging markets, national systems are quite segmented; this study dissects what goes within a specific category of firm as it copes with challenges and seeks to capitalize on any context specific advantages.

In summary, complementarity is about both trying to understand how firms build on systemic strengths and compensate for shortfalls. Much of the literature on emerging markets holds institutions primarily as obstacles that firms must circumnavigate or simply as ineffective (Cooke et al., 2019; Rezaei Zadeh et al., 2020). Within the economic institutionalist literature, the concept of voids suggests that institutions do not cover or support the activities of firms sufficiently, and this is a common phenomenon in emerging markets (Mair & Marti, 2009). In other words, key areas of firm activities may be unregulated to an extent that makes doing business challenging, and/or that institutions (e.g., around the protection of property rights) simply do not work. However, this discount the possibility of 'human creativity' in forging complementarities in response to such shortfalls (Crouch, 2005, p. 361); even in the most challenging circumstances, many firms move beyond a basic 'coping mode' (c.f. Mellahi & Wood, 2003). As Gooderham et al. (2015) note, whilst institutions may incentivize some firms to do certain things, others may be willing to accept some costs from departing from a specific national recipe of HR practice. Going it alone may be less attractive in cases where institutions impart known advantages (Gooderham et al., 2015). However, by the same measure, when they do not, actors may seek to forge complementarities at the firm level as a means of offsetting systemic weaknesses (Crouch, 2005). In other words, whilst the common plane of analysis of complementarity in comparative institutional analysis is at the superstructural level, complementarity may be actor driven.

2.2. Varieties of capitalism and HRM practices

It commonly held that national institutional contexts affect HRM practices and activities (see Al Jawali et al., 2022), albeit that these effects are uneven (Gooderham et al., 2015). Hiltrop et al. (1995) claim that in many nations, HRM, while similarly handled in some countries, is done in various ways. By exploring how companies communicate or co-ordinate with unions, financial firms, and other facets of the institutional context, HRM principles become clearer. While this method has led to criticism (Wood et al., 2014), a number of studies are designed to assess this issue. Employer-employee relationships are shallow and instrumental in organizations rooted in LMEs, and workers are less regularly consulted on work organization issues. For example, Brewster (2013) find that workers have less voice in LMEs compared to CME businesses, pointing to variations in employer-employee relationships and consultation practices. Multiple waves of firm level survey-based studies show that while investment in training is comparable between LME and CME businesses, the nature and objectives of training differ (Goergen et al., 2009). In LMEs, training focuses more on induction and basic skills to address high turnover rates, whereas in CMEs, training is oriented towards enhancing human resources and organizational capabilities, reflecting a less competitive job market and lower turnover levels (Wood, Darwish, Alanezi, & Singh, 2020).

The case of Jordan, characterized as an emerging market with a relatively weak institutional infrastructure, illustrates how national contexts influence HRM practices (e.g., Abualigah, Darwish, Davies, Haq, & Ahmad, 2024). For instance, there may be reasons why the system might mitigate against practices working as well as they should. For example, informal personal networks of support could undermine the most sophisticated recruitment system, and institutional and cultural limitations may impede the widespread acceptance of performance appraisal. In short, institutional and cultural limitations, such as those observed in Jordan, may impede the effectiveness of structured HRM practices, suggesting a need for adaptive strategies in different VoC contexts.

The literature review reveals a complex interplay between VoC, institutional complementarity, and HRM practices. VoC frameworks provide a foundational understanding of how different national economies organize their institutions, which in turn influences HRM practices. The concept of institutional complementarity, evolving from mutual support to compensatory mechanisms, underscores the adaptability of HRM in various institutional settings, including the challenges faced in emerging markets with institutional voids. This dynamic context necessitates a nuanced understanding of HRM, beyond the dominant pro-market orientation critiqued by Dundon and Rafferty (2018), to fully grasp the implications of national institutional contexts on HRM effectiveness and adaptability.

2.3. HRM in context: the case of healthcare sector in Jordan

There has been a growing number of accounts aimed at extending comparative capitalism literature to emerging markets, resulting in the development of a number of institutional archetypes, for example, to describe Latin America (Hierarchical Market Economy [Schneider, 2009]) and Africa (Segmented Business Systems [Wood & Frynas, 2006]). However, what such accounts have in common are assumptions that institutions are less closely coupled, regulatory enforcement uneven, and that informal networks can compensate for systemic shortfalls. Yet, it has been argued that to simply assume emerging markets are somehow less functional fails to take account of the extent to which national systems can work quite well for some players (Wood & Frynas, 2006).

Jordan, a medium-sized Arab country in the Middle East, lacks oil reserves and abundant natural resources, contrary to common perceptions about the region; despite encountering challenges typical of emerging markets, such as periodic debt crises, Jordan has maintained a relatively higher level of stability compared to many of its Middle Eastern neighbors (Lucas, 2012; Melhem & Darwish, 2023). It has been argued that this is owing to the ability of ruling elites to manipulate institutions in response to crises, including frequent adjustments to political rules (Hussein, 2018; Lucas, 2012). Unlike the inflexible autocracies, encountered elsewhere in the Arab world, Jordan has liberalized political and economic institutions, reconciling popular pressures, which are divided around the basis of communities and client-patron relations (Clark, 2004; Lucas, 2012). In doing so, the ruling order has capitalized on and manipulated internal disunities, whilst demonstrating policy flexibility where necessary (Clark, 2004; Hussein, 2018; Lucas, 2012). Jordan's political stability has been of great value to firms, as has been the willingness to readily jettison policies when they prove dysfunctional, but uncertainty and fluidity of rules undermines overall institutional effectiveness (Lucas, 2012; Darwish, Singh, Batsakis, & Potočnik, 2024).

As stated earlier, Jordan lacks oil reserves and basic natural minerals and resources. It has been argued that the country's most significant asset lies in its human resources; there is a strong work ethic, and the overall quality of academic education is deemed good (Mohammad & Darwish, 2022). However, Jordan currently grapples with various socioeconomic challenges, including a prolonged trade deficit resulting from higher imports than exports, leading to a long-term external debt (Darwish et al., 2013; Lucas, 2012). The nation frequently experiences water shortages, presenting persistent challenges for the agricultural sector and downstream businesses (Hussein, 2018). To bolster the political order, various initiatives have been periodically undertaken to alleviate poverty and reduce unemployment rates within the country (Lucas, 2012). Research on HRM in the Arab world, and particularly in Jordan, has been relatively limited. Existing studies have predominantly focused on the Gulf states (cf. Haak-Saheem & Darwish, 2021). The majority of this research tends to be anecdotal rather than empirically sound, often highlighting the enduring impact of culture and personal ties. Additionally, a common theme emerges in the literature regarding organizations' ability to devise solutions tailored to contextual challenges (Melhem & Darwish, 2023). The lack of comprehensive data unfortunately makes it challenging to assess the effectiveness of prior

HRM strategies in Jordan in comparison to prospective practices (see Aladwan et al., 2014). Earlier literature, however, underscores the importance of promoting enhanced HR management in Jordan to sustain long-term growth (Aladwan et al., 2014; Mohammad, Darwish, Singh, & Khassawneh, 2021).

Despite its authoritarian nature, Jordan maintains a labor movement that, while relatively weak in terms of bargaining power and scope for action, is not entirely marginalized. This is particularly noteworthy considering that, as mentioned earlier, the government has demonstrated greater flexibility in adapting to political challenges compared to many states in the region (Teti et al., 2017). The interplay between the evolving labor movement and HRM practices in Jordan requires further exploration to understand its impact on the overall socioeconomic context.

The following section of the study will explore five key HR practices. These practices have been consistently recognized in research exploring the relationship between HRM practices and outcomes for both employees and organizations. The specific practices under examination in this study encompass recruitment and selection, training, performance appraisal, compensation and benefits, and internal career opportunities. It is widely acknowledged that these foundational HRM practices play a crucial role in shaping organizational success (e.g., Becker & Huselid, 1998; Darwish et al., 2020; Kehoe & Wright, 2013; Pfeffer, 1998; Singh, Darwish, Costa, & Anderson, 2012).

Recruitment and selection: Recruitment and selection are highly important practices for an organization's success, as acquiring the appropriate workers can improve and maintain organizational performance. A well-implemented recruitment procedure can reduce the time allotted for search, interview, hiring and training. It could rationalise these processes and render search for suitable candidates much more effective. There are further issues associated with the recruitment process in Jordan. For example, recruitment is not necessarily the systematic objective selection of the best candidate for the advertised role. There is extensive use of *wasta* to secure a job in Jordan which means many capable candidates have no opportunity to present themselves for the role, and it may simply go to friends or family members whose suitability is less remarkable (Melhem & Darwish, 2023). In other words, whilst it is commonly held that effective recruitment may make an organization more effective, it is possible that informal networks or *wasta* may subvert the process in Jordan. Wasta, an informal network prevalent in Jordan and the Arab world, intertwines with organizational practices as a powerful social norm (Haak-Saheem & Darwish, 2021). It involves leveraging connections or influence for specific goals, deeply ingrained in Middle Eastern societies as a cultural concept (Weir, 2020). *Wasta*, encompassing interpersonal and tribal ties, often substitutes formal institutions. Linked to recruitment and promotions within certain organizations (Alsarhan & Valax, 2021), lacking strong wasta can impact career prospects.

In the context of Jordan's healthcare system, recruitment and selection practices are of particular importance due to the sector's critical nature and the need for highly skilled professionals. The healthcare industry requires a workforce that is not only technically proficient but also compassionate and ethical. This necessitates a rigorous and fair recruitment process to ensure that the most capable and suitable individuals are employed. Challenges in this sector could have far-reaching implications, affecting the quality of healthcare services and patient outcomes. The use of *wasta* in recruitment within the healthcare sector could potentially compromise the quality of care and lead to inefficiencies in service delivery. Therefore, ensuring a merit-based, transparent recruitment process in the healthcare sector is vital for maintaining high standards of care and upholding the trust of the public in the healthcare system.

Training: Training is essential in ensuring employees have opportunities to enhance their knowledge and performance, as well as a comprehensive understanding of an organization's expectations (Cunningham, 2007). While general training is widely implemented, specific training is crucial for enhancing the skills, knowledge, and abilities of employees in particular roles. The importance of training, especially in emerging market settings, was highlighted in a study by Haak-Saheem and Festing (2018), which underscored the government's role in educating nationals to develop their competencies. In the healthcare sector, where there is a notable shortage of labor and limitations in official systems, training and development programs are particularly important. These programs can reduce employee turnover and enhance the quality of services provided, benefiting patients (Elarabi & Johari, 2014). In the context of Jordan's healthcare system, the approach to training faces specific challenges. Some organizations in Jordan perceive the time invested in employee training as unproductive and a misuse of resources, considering the difficulties in supplementing the national training system and the risk of losing trained employees to other organizations. This is compounded by the skepticism of some managers regarding the effectiveness of training programs, leading to a lack of credibility in these initiatives (Aladwan et al., 2014). This perspective highlights a significant challenge in the Jordanian healthcare sector: the need to balance the investment in employee training with the retention of skilled professionals, ensuring a high level of care and service within the healthcare system.

Rewards and benefits: Rewards and benefits play a crucial role in influencing labor turnover and various organizational outcomes, necessitating a balanced, impartial, and competitive system. In Jordan, it is believed that a well-structured compensation and benefits system can substantially enhance productivity and performance (Mohammad et al., 2021). The minimum wage for all employment sectors is set by the government (Al-Husan & James, 2003), with employee salaries and rewards typically determined by factors such as work experience, age, and position.

However, cultural factors significantly influence the distribution of rewards and benefits in Jordan. These factors can lead to an uneven allocation based on social status and caste, potentially undermining formal systems and institutions. This disparity in reward distribution highlights the challenge of aligning HR practices with broader organizational objectives.

In the context of Jordan's healthcare sector, the implications of these rewards and benefits system are particularly noteworthy. In a field where employee performance directly impacts patient care and health outcomes, an equitable and effective rewards system is essential. The study suggests that while certain HR practices can positively affect performance, a more integrated approach to people management is needed for better organizational outcomes. In Jordan's healthcare system, addressing systemic shortfalls in rewards and benefits, and ensuring that compensation and benefits align with employee performance and the critical nature of healthcare work, is essential for maintaining high standards of care and attracting and retaining skilled healthcare professionals (Mohammad et al., 2021).

Performance appraisal: Effective performance appraisal is widely recognized as a key factor in achieving positive organizational outcomes, including a lower turnover rate and higher productivity. Pulakos et al. (2015) examine the biases that can impact performance appraisals, such as confirmation bias, where evaluators tend to seek information that confirms their preconceived notions about an employee. This study underscores the importance of awareness and training to counter these biases, aiming for more objective and equitable appraisals.

DeNisi and Smith (2014) also provide a thorough review of the impact of performance appraisals at the organizational level, examining both the positive and negative aspects. They propose a new model for understanding the complex relationship between performance appraisals and firm-level performance, highlighting the necessity for well-designed appraisal systems aligned with strategic organizational goals.

In Jordan, however, the effectiveness of performance appraisals is often compromised by cultural and institutional barriers, as highlighted by Darwish et al. (2016). Factors such as cultural norms that discourage

direct feedback, hierarchical structures that impede open communication, inadequate training for appraisers, an overemphasis on quantitative metrics, regulatory frameworks not supporting comprehensive appraisal systems, and the influence of *wasta* (informal networks) on objectivity, can render performance reviews less effective. These issues can result in performance appraisals being seen more as a procedural formality rather than a developmental tool, particularly in the context of Jordan's healthcare sector. In this sector, where accurate and developmental performance appraisals are critical for patient care and service quality, addressing these cultural and institutional challenges is essential for improving the effectiveness of performance evaluations.

Internal career opportunities: Employees rely less on organizations to manage their careers, preferring instead to take control of their own career paths. Individual employees will now have their own criteria that define whether their career is successful, and this criterion is not solely centered on promotions and salary (Amin et al., 2014). Research has shown that the benefits of career development are not limited to Western cultures, but also apply in non-Western settings. In the context of Jordan's healthcare sector, these findings suggest that providing internal career opportunities can be a critical factor in enhancing healthcare service quality. Given the sector's unique challenges, including resource constraints and the need for specialized skills, the ability to offer career development and advancement opportunities within healthcare organizations is vital. It not only aids in retaining skilled professionals but also ensures a motivated and competent workforce committed to delivering high-quality healthcare services. (e.g., Elarabi & Johari, 2014).

Based on the above discussion of HR practices, we now deduct this main hypothesis:

H1. Within the health care industry in Jordan, HR practices will, in isolation, have little impacts on organizational performance.

Based on the above main hypothesis, we deduct the following sub-hypotheses:

H1a. Recruitment and selection will have little impacts on perceived organizational performance within the health care sector in Jordan.

H1b. Training will have little impacts on perceived organizational performance within the health care sector in Jordan.

H1c. Performance appraisals will have little impacts on perceived organizational performance within the health care sector in Jordan.

H1d. Compensation and benefits will have little impacts on perceived organizational performance within the health care sector in Jordan.

H1e. Internal career opportunities will have little impacts on perceived organizational performance within the health care sector in Jordan.

2.4. HR complementarities and organizational performance

As reassurance for the practice of measures that influence both engagement and performance, HR scholars and practitioners have frequently drawn attention to the utility of a supportive combination of bundles of HR practices, merged into a unit or a system of methods (Boselie et al., 2005). In the context of comprehensive assessments of HR practices within the service and manufacturing sectors, there's a significant focus on Western economies, although these sectors are globally prevalent. Gerhart's (2007) study, which predominantly examines these sectors in Western contexts, highlights that HR practices sometimes have limited impact on organizational outcomes, particularly in liberal market economies typical of the West; this is attributed to a greater focus on immediate financial metrics rather than long-term HR development. Additionally, MacDuffie's (1995) research suggests that the effectiveness of HR practices in these sectors hinges on the integration of multiple processes, rather than isolated interventions. This approach is especially relevant in manufacturing, where combining HR practices with lean manufacturing and technology can significantly influence productivity. These insights are critical for understanding HR strategy implementation in various economic systems and hold global applicability, guiding multinational corporations in adapting HR strategies to diverse economic environments. Indeed, other work suggests sets HR practices should produce more impact, as the whole is better than the individual parts. For example, to hire the right workers without training them, or to train them without giving them the power to make decisions, will generate less influence; while executing these practices at the same time would lead to better influence than if they were implemented in single units (Wall & Wood, 2005). Performance may also be affected by the way in which the concerned procedures are bundled as a unit by an organization possessing specific characteristics of its own, for example, as result of sectoral effects (Stavrou & Brewster, 2005). It has been widely argued that in healthcare settings, there are diverse specializations in the labor force that vests HR with a particular significance in engendering efficient and productive service delivery and providing the best services to patients. For example, Ali and Aameed (2016) conclude that maintaining an efficient HRM system in hospitals has made a lasting impact by namely enhancing staff performance in the facility. On the one hand, it could be argued that, even in advanced institutional contexts, there may be much diversity, even though institutions are more likely to support and sustain intricate HR systems (Goergen et al., 2012).

On the other hand, it could be argued that when institutions are less efficient, firms will have more incentives to devise solutions of their own (Crouch, 2005). Therefore, it can be argued that a bundle of people management practices may be necessary to address systemic shortfalls. For instance, if national training systems are limited, internal HR development becomes more crucial. However, skill shortages can lead to poaching, and firms that invest in employee training and development may need to develop supportive reward systems to retain their staff. Thus, a comprehensive approach that integrates multiple HR practices may be needed to address such challenges. In turn, such practices may be emulated, providing proven recipes for performing well in challenging circumstances. In other words, bundles of HR practices may yield superior outcomes in Jordan, because of, rather than despite, contextual limitations. It is also held that local healthcare system in Jordan, just like many other nations, is rather oligopolistic in nature, that is, a number of hospitals compete on local and regional services (see, Ozcan et al., 1992; Mwema & Gachunga, 2014) at the expense of other important organizational aspects e.g., people development. Hence, more work is needed to better understand the concept of institutional complementarities and HRM policies in oligopolistically structured markets and the performance implications of the former, particularly within the healthcare sector. Based on the above, we propose the following main hypothesis (with the relevant sub-hypotheses listed under endnote 1):

H2. Regardless of the market oligopolistic nature of the healthcare

sector, there will be a positive relationship between bundles/complementarities of HR practices and perceived organizational performance within the healthcare sector in Jordan .[1]

3. Methodology

3.1. Sample and response rate

The research focused on all hospitals that are currently operational in Jordan, as there are only a limited number of hospitals in the country (less than 150 hospitals). Hospitals were mixed in size, with some having over 5000 employees and others having less than 500; hence, we control for the size of the hospital, as the latter may have an impact on the results of the study. Given the relatively modest number of hospitals in Jordan, we employed a population-sample design. This approach involves researching the entire population of hospitals, rather than a subset, ensuring greater reliability in achieving the main objective of this study. Additionally, this would enhance the applicability of the findings across the broader healthcare sector in Jordan and other comparable contexts. HR mangers and hospitals' managers were the targeted respondents. We surveyed HR managers due to their knowledge, understanding, and involvement in developing and executing HR policies and procedures within their hospitals. Additionally, we included hospital general managers, given their expertise in evaluating hospital performance; we employ two different questionnaires to prevent possible Common Method Variance (CMV), as organizational performance will be assessed by a different group of respondents who are the hospitals' managers. Out of the distributed questionnaires, 92 were collected. However, seven of these were deemed unusable: five due to substantial missing data and two because the organizational performance section was not completed by the hospital managers. In other words, we excluded questionnaires completed by HR managers but not the hospital manager (in the case of the same hospital), and vice versa. Therefore, they had to match, specifically within the context of being from the same hospital, to be included in the analysis. Hence, 85 completed questionnaires were useful for the purpose of the analysis. Given the concise geographical area where most of these hospitals are located, both questionnaires were provided to the targeted respondents in person. This approach substantially helped achieve a reasonably high response rate.

3.2. Measurement

HR practices: All HRM practices were assessed using the 5-point Likert scale based on existing literature (see, for example, Becker & Huselid, 1998; Jiang et al., 2012; Kehoe & Wright, 2013; Paul & Anantharaman, 2003; Pfeffer, 1998). Table 1 includes HR practices and their measuring items.

Organizational performance: To measure performance indicators,

[1] Based on the second main hypothesis, we deduct the following sub-hypotheses: H2a: There will be a significant interaction effects between recruitment and selection and training. H2b: There will be a significant interaction effects between recruitment and selection and performance appraisals. H2c: There will be a significant interaction effects between recruitment and selection and compensations and benefits. H2d: There will be a significant interaction effects between recruitment and selection and internal career opportunities. H2e: There will be a significant interaction effects between training and performance appraisals. H2f: There will be a significant interaction effects between training and compensations and benefits. H2g: There will be a significant interaction effects between training and internal career opportunities. H2h: There will be a significant interaction effects between performance appraisals and compensations and benefits. H2i; There will be a significant interaction effects between performance appraisals and internal career opportunities. H2j: There will be a significant interaction effects between compensations and benefits and internal career opportunities.

Table 1
Convergent validity.

Constructs	Items	Factor Loading	Cronbach Alpha	AVE
Recruitment and selection			0.91	0.72
	Hospital prefers promotion from within when filling vacant position	0.894		
	Recruitment and selection process fit the candidates with the jobs	0.881		
	Hiring people with creative thinking skills	0.844		
	Hiring employee with specialized skills	0.797		
Training			0.70	0.53
	Hospital provides continuous training for updating employee skills and knowledge	0.777		
	Our hospital provides equal opportunities to all employees	0.777		
	New employees familiarise with organisational norms and values (orientation)	0.689		
	All training programmes are of high quality	0.652		
Performance appraisals			0.71	0.65
	Employee evaluation criteria are clear	0.887		
	Performance appraisal can impact the employee's commitment towards work positively	0.848		
	Feedback is provided on a regular basis by the management	0.792		
	Employees are satisfied with performance appraisal result	0.696		
	Performance appraisal is result oriented	0.328		
Compensation and benefits			0.79	0.65
	Good job performance is noticed and rewarded	0.913		
	Top management prefers participation in decision making with all levels of jobs	0.903		
	Job performance is an important factor in determining the incentives and compensation of employees	0.823		
	Compensation system is rewarded by innovative idea	0.749		
	Hospital relates to compensation system with the level of knowledge and skill acquired by employees' knowledge and skill	0.607		
Internal career opportunities			0.94	0.76
	Qualified employees in the job have the opportunity to be promoted to positions of greater pay and/or	0.911		

(continued on next page)

Table 1 (*continued*)

Constructs	Items	Factor Loading	Cronbach Alpha	AVE
	responsibility within the hospital			
	Employees who desire promotion in this hospital have more than one potential position they could be promoted too	0.909		
	Strong support for training in our area of work	0.908		
	Our hospital provides support to keep up-to-date with developments in our field	0.894		
	Employees have good opportunities of being promoted within this hospital	0.885		
	The promotion process used by our hospital is fair for all employees	0.835		
Organisational performance			0.75	0.50
	Quality of medical product and services	0.818		
	Profitability (after tax)	0.764		
	Holding market share	0.672		
	Growth in sales	0.650		
	Staff productivity	0.620		

Note: All deleted items (not reported in this table) had factor ladings below.50, which is considered the minimum significance level in comparison with our sample size (Hair et al., 2010).

hospital managers were asked to complete a separate questionnaire that specifically addresses organizational performance items. We used five items scale (holding market share, profitability (after tax), staff productivity, growth in sales, and quality of medical products and services). Performance measures used in this study were based on the work of Delaney and Huselid (1996); Yang and Lin (2009); and Singh et al. (2016).

Control variable: In HRM-performance research, the size and the age of the organization are two of the most important control variables (see, for example, Becker & Huselid, 1998), due to their possible effects on the proposed relationships. Hence, both were considered as control variables in the analysis. Age of hospital was determined by the number of years it has been in operation, while its size was measured by the number of employees (see Darwish et al., 2016).

3.3. Statistical methods

To test the stated hypotheses, a variety of methods were employed. Convergent validity has been established for all constructs by assessing factor loadings, the reliability values, and average variance extracted (AVE). Moreover, discriminant validity was also tested as detailed below. The descriptive statistics which include the standard deviation, mean, and correlations are also provided. Sequential regression analysis was then conducted for data modelling.

3.4. Reliability and validity

3.4.1. Convergent and discriminant validity

For the assessment of convergent validity, AVE, reliability, and factor loadings of the measures were used (Hair et al., 2010). Coefficients of reliability range from 0.70 to 0.94, as shown in Table 1, indicating that all the scales comply with the reliability criterion. Factor loadings for the measuring items are also reported in Table 1, which shows that all the loading values are above the 0.5 threshold, except for some cases that have been dropped to further improve the conceptualization of measures. Notably, all factor loadings range from 0.60 to 0.91, which indicates close relation between measures and their associated factors. In addition, AVE values were also acceptable within a range of 0.50–0.76. Overall, these findings show that convergent validity of all constructs under study is established. Additionally, following the approach suggested by Fornell and Larcker (1981), discriminant validity was examined, where the squared roots of the AVE values, as shown in Table 2, are larger than the correlation value of the HR practises, which is below the diagonal axis. This is representative of the degree to which discriminant validity is appropriate.

3.5. Common Method Variance

Hospital managers were chosen to fill the performance section to avoid the Common Method Variance issues (CMV). CMV can be described as possible modifications to real correlations among perceived variables (Schwarz, et al., 2017). Richardson et al. (2009), supports the idea that by stating that common method bias, there is a potential issue linked with investigation in the behavioral disciplines, particularly studies containing self-reports like questionnaires. Social experts and organizational investigators (e.g., Podsakoff et al., 2003) have recognized two major methods for mitigating potential CMV in quantitative studies: (a) establishment of solid practical design of the research and (b) exercising numerical controls. Both methods have been carefully considered in this research as ways to help alleviate potential CMV.

In relation to the first method, we have taken a number of actions following the existing literature (see, for example, Podsakoff et al., 2003) to reduce the possibility of CMV. We ensured the privacy and anonymity of the respondents. Also, we used clear and precise scale items to ensure fewer bias issues. We paid attention to ensure that all responses need equal effort (e.g., avoid complex wording). Then, we provided instructions to participants to complete the questionnaire and elude misunderstanding. Finally, we gathered the primary data from two different hierarchy levels (hospital manager and HR managers). In terms of the second method, Harman's factor test was used. The potential existence of the common method bias was taken into consideration by applying Harman's one-factor test (Podsakoff et al., 2003). A principal component factor analysis with an unrotated solution yielded 11 factors with eigenvalues greater than 1, accounting for 77.24% of the overall variance. The largest factor explained 23.04%, which proposes that no single factor accounted for a majority of the covariance in the variables. Hence, this would suggest that CMV may not be a major concern in the instance of this study (c.f. Chow et al., 2008).

4. Analysis and results

4.1. HR practices hypothesis testing

Descriptive statistics and correlation matrix of variables are described in Table 2. To test the proposed hypotheses, hierarchical (sequential) multiple regression analysis was then performed. The latter is a good method, particularly when we have control variables such as the ones under study (e.g., Darwish & Singh, 2013; Mohammad et al., 2021). As indicated in Table 3, the R^2 and ΔR^2 value shows how well our model fits the results. The value of R^2 for HR practices ($R^2 = 0.52$, $p < 0.001$) is of high significance as it indicates that 52% of the performance variance is accounted for HR practices. The *F*-ratio (16.481), is also significant. In addition, the adjusted R^2 is 0.474, which shows to what degree the generalizable and ideal representation of the same model is, or similar to, the R^2 value.

Subsequently, besides what has been explained by the control variables: hospital age and size ($R^2 = 0.001$, $F\ (2,82) = 0.043$, $p > 0.05$), changes in significance in R^2 provide primary support for the first hypothesis in relation to HR practices. This implies that some of the HR practices mentioned in the second step have significant relationships

Table 2
Correlation matrix of variables.

Constructs	Mean	SD	Recruitment and Selection	Training	Performance Appraisal	Compensation and Benefits	Internal Career opportunity	OP	Log Firm Size	Log Firm Age
Recruitment and Selection	3.60	0.801	**0.84**							
Training	3.74	0.847	0.389[b]	**0.72**						
Performance Appraisal	3.51	1.03	−0.015	0.053	**0.80**					
Compensation and Benefits	3.70	0.726	0.269[a]	0.454[b]	0.149	**0.80**				
Internal Career Opportunities	2.68	1.01	0.282[b]	0.374[b]	0.141	0.127	**0.87**			
Organisational Performance	2.86	0.963	0.440[b]	0.517[b]	0.086	273[a]	0.609[b]	1		
Log Firm Size	2.965	0.856	−0.030	0.105	−0.136	−0.013	0.019	0.027	1	
Log Firm Age	2.916	1.014	0.114	0.096	0.258[a]	0.270[a]	0.030	−0.022	−0.179	1

Diagonal elements are square roots of average variance extracted.
[a] Correlation is significant at the 0.05 level (2-tailed).
[b] Correlation is significant at the 0.01 level (2-tailed).

Table 3
Hierarchal regression analysis for performance with HR practices.

Variables	Step One		Step Two	
	Organizational Performance		Organizational Performance	
Control Variables	*B*	Sig.	*t*	Sig.
Log Firm Size	0.024	0.829	−0.195	0.846
Log Firm Age	−0.018	0.875	−1.328	0.188
HR Practices				
Recruitment and Selection			2.391	0.019*
Training			2.457	0.016*
Performance Appraisal			0.343	0.732
Compensation and Benefits			0.807	0.422
Internal Career Opportunities			5.114	0.000***
R^2	0.001(-0.23)		0.517(0.474)	
ΔR^2	0.001		0.516	
F for ΔR^2	0.43		16.481***	
Durbin-Watson	2.218			

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

with the performance ($\Delta R^2 = 0.52$, F for $\Delta R^2 = 16.481$, $p < 0.001$). This encompasses recruitment and selection, training, and internal career opportunities. With respect to the rest of practices (performance appraisal, compensation and benefits) as shown in Table 3, the findings are not representative of any distinctive inputs with respect to their relationship with performance.

4.2. Bundles hypothesis testing

As noted above, it has been argued that, when combined in bundles, HR practices will have a greater impact on performance than single practices in their own right; for instance, a good example could be a combination of further training investment with more effective reward systems (Darwish et al., 2020). On the one hand, it could be argued that such bundles are more likely to emerge and be sustained in supportive institutional environments. On the other hand, it could be argued that, when institutions are less effective, bundles of HR practices may be able to compensate for systemic weaknesses, and hence, make a particular difference; this might provide the basis of 'bottom up' complementarity (that is sets of measures initiated and emulated by firms that compensate for systemic weaknesses to a greater extent than individual interventions). In accordance with the suggestions by scholars who have tested HR bundles proposition (see, for example, Darwish et al., 2020; Macky & Boxall, 2007), the possibility of firm initiated and compensatory complementarities was subject to examination with regard to interactive relationship between HR practices (see Venkattraman, 1989). As a result, we first tested the two-way interaction items between HR practices as a way to explore as to whether or not there was any interaction effects on performance. Second, going on the suggestion of Macky and Boxall (2007), one more test was conducted to explore whether or not the entire interaction impact between HR practices would demonstrate a higher percentage of the variance above the percentage that the single practices demonstrate.

Table 4 records the standardized regression coefficients for the interaction effects among HR practices. These results are non-supportive of the stated hypothesis. There is only one interaction effect of statistical significance, which is found to impact on performance. This interaction between performance appraisals and internal career opportunity has a

Table 4
Hierarchal regression analysis for performance with HR complementarities.

Variables	Step One		Step Two		
	Organizational Performance		Organizational Performance		
Control Variables	*B*	Sig.	*B*	*t*	Sig.
Log Firm Size	0.024	0.829	0.005	0.060	0.952
Log Firm Age	−0.018	0.875	−0.099	−1.092	0.278
HR Practices					
Recruitment and Selection * Training			0.496	1.017	0.312
Recruitment and Selection * Performance Appraisals			−0.403	−1.143	0.257
Recruitment and Selection * Compensations and Benefits			0.310	0.686	0.495
Recruitment and Selection * Internal Career Opportunities			−0.109	−0.241	0.811
Training * Performance Appraisals			−0.217	−0.807	0.422
Training * Compensations and Benefits			−0.123	−0.305	0.761
Training * Internal Career Opportunities			0.359	0.703	0.484
Performance Appraisals * Compensations and Benefits			0.119	0.334	0.739
Performance Appraisals * Internal Career Opportunities			**0.768**	**2.036**	**0.045***
Compensations and Benefits * Internal Career Opportunities			−0.370	−0.705	0.483

Source: Author's data. *$p < .05$, **$p < .01$, ***$p < .001$.

positive significant effect on performance ($\beta = 0.768$; $t = 2.036$, $p < .05$). As clearly shown from the results recorded in Table 4, with regard to the remainder of the interaction terms amongst HR practices, no effects of significant interaction are found.

Following recommendations from Macky and Boxall (2007), we have conducted an additional test to further validate the HR complementarities results recorded in the previous section. The aim of this test is to illustrate whether or not the entirety of the interaction effects between HR practices would be explanatory of a higher and significant percentage of the variance explained by the individual HR practices. The study's findings indicated that the variability in HR complementarities did not significantly contribute to explaining more than what individual HR practices already did. These results are confirmatory that the complementarities of HR practices have no positive impact on organizational performance as a whole, and that the individual impact of HR practices has a superior performance effect than its complementarities. We discuss these results further in the next section.

5. Discussion and conclusions

This study explores how HR practices may confer material advantages in challenging institutional circumstances, focusing on the case of the healthcare sector in Jordan, and draws out the implications for theorizing and practice. The results show that three of the HR practices (recruitment and selection, training, and internal career opportunities) each have a direct impact on performance, and contrary to what earlier work predicts might have been the case in Jordan (Altarawneh, 2009; Darwish et al., 2013, 2016). Whilst barely unexpected, these results add more focus to the claim that the impact of HRM practices on performance is not only (or possibly) a Western phenomenon: rather, they seem to make a visible effect in the context of this research, and, indeed, these effects may be more pronounced than within mature institutional settings. Upon closer examination of our measures, it appears that hiring employees with specialized skills, implementing a recruitment and selection process that ensures proper job placement for workers, providing continuous training to improve employee skills and capabilities, offering equal opportunities, providing robust support for training, and ensuring fairness of promotion amongst all employees could all potentially have significant impacts on performance. The findings indicate, however, that incentives and benefits were not substantially related to organizational success (also see Aladwan et al., 2014; Darwish et al., 2013). As noted earlier, the minimum wage for all employment sectors in the country is set by the government (Al-Husan & James, 2003); employees' salaries and rewards are determined by their previous work experience, age, and the position they have been assigned to. For the majority of employees, a basic salary is offered with an incentive of further bonuses, which are subsequently determined in accordance with the employee level in the company, their age, and the work they execute. As previously noted, rewards and benefits in Jordan are still heavily influenced by the local culture. This means that factors such as social status and caste may influence the allocation of rewards and benefits, potentially leading to uneven distribution. Despite formal systems being in place, the impact of cultural and informal institutions on the allocation of rewards and benefits cannot be ignored, regardless of the level of multinational and foreign investment the country now enjoys. As noted earlier, there may be reasons why the system might mitigate against practices working as well as they should; for example, *wasta* could undermine the most sophisticated recruitment system. Their functionality might reflect the insider knowledge of managers, enabling ad hoc adjustments to compensate for distortions and build on strengths. We also did not find performance appraisals positively related to organizational performance. Therefore, it appears that in Jordan, employees do not have a favorable perception of performance appraisals. The latter is evidenced by work of Darwish et al. (2016) where they found that performance appraisal is negatively associated with the overall organizational performance; they argue that this "could reflect institutional or cultural barriers to general acceptance of performance appraisal in Middle East settings" (p.12).

Next, we tested the impact of HR bundles of practice on performance, and the findings did not support the related hypothesis. There was only one interaction effect of statistical significance between performance appraisals and internal career opportunity, which has a positive significant effect on the outcome variable. Regarding the rest of the interaction terms amongst HR practices, no effects of significant interaction are evident. Organizations were clearly experimenting with different sets of practices, but there was little evidence to work to such an extent that might represent an emerging basis of complementarity that would be liable to be emulated by other players and ultimately impact across the wider system, driving change from below. Therefore, regardless of the convincing theoretical quarrel of the HR complementarities proposition, the test of the interaction effects of HR practices failed to support such a proposition. Hence, empirical investigations in this particular research stream have not been successful in consistently supporting or establishing the effectiveness of fit (see Panayotopoulou et al., 2003). Therefore, it is not as of yet safe to state that HR practices, as an internally consistent bundle, have stronger impact on performance in comparison to the singular practices. It is not impossible that the ideal pattern might not only be dependent on nationwide contexts, but rather owing to the field and the specific features of any given hospital. In both instances, the development of dependable and effective measures of HRM practices and complementarities that may emerge from combinations of such practices remain a vital concern for future research.

6. Implications for theory and practice

Our findings explain how bottom-up solutions may emerge to compensate for systemic shortfalls, if they are replicated and are proven to mitigate systemic shortfalls (as adverse to top-down complementarities which may be the direct, and possibly intended, result of institutional design). Complementarities may arise out of the conscious choices of firms and other economic agents to try and find ways of compensating for systemic shortfalls, rather than an outcome of serendipity or the unanticipated consequences of institutional design (Boyer, 2005; Streeck, 2005). This may be through specific organizational practices or simply emerging patterns of collective behaviour (Boyer, 2005; Crouch, 2005). While there was no evidence to conclude that an integrated HR paradigm had emerged from bottom-up ways of compensating for structural weaknesses, compensations were encountered that may hold the potential to diffuse across the system. If complementarities do emerge and coalesce in this manner, the system may end up being more useful to firms than might initially exist; shortfalls are known and can be mitigated through innovations in practice. This might suggest that actors have a much stronger interest in the status quo than might initially appear (which is, of course, not what the literature on institutional voids would suggest, other than in the case of those engaged in nefarious dealings that are adverse to regulation altogether). If it is challenging to devise local solutions, this may mean that players have diminishing interest in maintaining the status quo, ultimately leading to demands for far reaching institutional change. Yet, Jordan is not a country associated with the large-scale institutional failures that have manifested them elsewhere in the world. Certainly, some HR practices in some instances seem to make a difference to performance, but there was little sign that more integrated approaches to people management left organizations better off. However, it may be the case that players have devised solutions in other areas of managerial practice that may be more effective than HRM in compensating for systemic limitations. It may simply be the case that market oligopolies, which are common in private healthcare systems, (c.f. Wood & Wright, 2015) mean that firms are likely to make reasonable profits no matter how good or poor HR practices are, diminishing the need for mutually supportive HR systems. However, this does not diminish their significant broader implications for workers, society, and communities which are beyond the scope of this work.

This raises the more applied question as to why the firms encompassed by this study did what they did. If there is little interest in maintaining the status quo, individuals will seek to constantly test and push back at it, or simply seek to maximize opportunistic personal rent seeking, yet this study found little evidence of incoherent experimentation in HRM. In terms of firm policy, there is clearly a need to build common ground between managers and employees as to what constitutes tolerable or appropriate conduct; the weakness of unions – and state hostility towards them – precludes a range of solutions that have been developed in CMEs. Whilst the elusive nature of complementarities might mitigate against efforts to more closely integrate HR practices (more specifically recruitment and selection, training, and the provision of internal career opportunities), doing so could make for a more efficient utilization of resources and promote greater mutual interdependence. Again, local healthcare system in Jordan is rather oligopolistic in nature, that is, few hospitals compete on local and regional services (see, Ozcan et al., 1992; Mwema & Gachunga, 2014) at the expense of other important organizational aspects e.g., people development. Hence, it may also make managers less reliant on structural advantages (for example, an oligopolistic market status) and therefore less vulnerable to regulatory reform.

This raises a broader question as to the implications for the study for HR managers in other contexts, including Europe and the Global North more generally. Even with the mature economies, institutional arrangements are neither static nor perfectly functional. However, even when there is a critical mass of interests pressing for change, and/or when regulatory reforms take place, it is very rare for existing modes of practice to be completely superseded. Even in mature institutional settings, actors contrive ad hoc solutions to adjust for systemically induced challenges (Bakir, 2022; Crouch, 2005); in turn, they may be reluctant to discard the known benefits from such practices, even when the original systemic challenges have been removed. This would explain the durability of national HR paradigms, even in the face of institutional change. In turn, this would highlight the value of insider perspectives from managers long familiar with existing organizational and contextual realities; seizing opportunities to reform HRM may make sense in objective terms, but may discount the value of what has been proven to work on the ground and what is familiar to key players.

7. Limitations and future research

We acknowledge some limitations, which are essential to "establish (ing) the boundaries, exceptions, and reservations inherent" (Creswell, 2003, p. 147). Firstly, the use of a cross-sectional study design makes it difficult to draw any causal conclusions. Regardless of HR practices being positive on their impact on performance, it is important to note that our research design does not allow us to completely rule out the possibility of reverse causation (Darwish et al., 2016). Hence, future work could employ longitudinal designs to avoid such limitation and overcome the time-lag effects associated with the impact of HRM on performance.

In addition, we only focused on the healthcare sector which may limit the generalizability of our findings to other sectors; thus, future work could target larger and more diverse samples. Moreover, the assessment of HRM practices intersect with organization outcomes is not governed by any stipulated or regulatory HR practices. As such, the five HR practices reviewed specifically in the study may only provide a restrictive representation of the organizations' HR practices. Irrespective of this, the most commonly studied practices in the public and government sector, as regards the association between HRM practices and organisational performance, have been included in the current study. Moreover, we acknowledge the limitation of our study, where data on HR practices were exclusively collected from HR managers. While this intentional focus allowed insights from those directly involved in HR policy development, it may not capture variations in practices across different employee categories within specialized industries like healthcare. For instance, technical staff (e.g., nurses) and non-technical staff (e.g., accountants or administrative personnel) may experience different HR practices. Future research should explore multiple perspectives, including those of employees in specialized roles, to provide a comprehensive understanding of HR practices and their impact on diverse segments of the workforce.

Further, the heterogenous nature of the result of existing studies on the HR-performance link might reflect the impact of intervening variables. The latter represents a limitation of the research, although, of course, such factors, which might be context-related, could include the relative insertion of the organization within the community and clientelist networks; access to external patronage may make internal people management less relevant in determining how well the organization does. Again, the relative extent of internal tensions between competing interest groupings (defined on the basis of clan and patron-client relations) within and between strata of employees may impact on how well HR systems work. Additionally, future work should continue testing for HR complementarities, particularly in emerging markets due to the lack of investigation in this area in the developing world. It would be valuable to gather further information regarding why it is more challenging to establish a clear, comprehensive set of complementary HR practices in emerging markets compared to mature markets. Finally, it is worth noting, as argued by Tony Dundon and Rafferty (2018), that the state of HRM, given its pro-market orientation prioritizing short-term shareholder interests, contributes to income inequality and neglects broader organizational, employee, and societal concerns. The authors state that this market-driven focus overshadows the wider social, political, and economic contexts of business and management. Our study underscores that in oligopolistically structured markets, common in private healthcare systems, the effectiveness of HR practices may be less crucial for profitability. However, this does not diminish their broader implications for workers, society, and communities. Future research should explicitly emphasize these broader implications.

Statements and declarations

- Informed consent was obtained from all individual participants included in the study.
- No potential competing interest was reported by the authors.
- The authors declare no financial or non-financial interests that are directly or indirectly related to this article.
- The data that support the findings of this study are available from the corresponding author upon reasonable request.

CRediT authorship contribution statement

Tamara Mohammad: Data curation, Formal analysis, Methodology, Software, Writing – original draft. **Tamer K. Darwish:** Conceptualization, Methodology, Supervision, Writing – review & editing. **Osama Khassawneh:** Data curation, Formal analysis, Resources, Software, Writing – review & editing. **Geoffrey Wood:** Conceptualization, Supervision, Writing – review & editing.

References

Abualigah, A., Darwish, T. K., Davies, J., Haq, M., & Ahmad, S. Z. (2024). Supervisor support, religiosity, work engagement, and affective commitment: Evidence from a Middle Eastern emerging market. *Journal of Asia Business Studies, 18*(1), 1–20.

Al Jawali, H., Darwish, T., Scullion, H., & Haak-Saheem, W. (2022). Talent management in the public sector: Empirical evidence from the emerging economy of Dubai. *International Journal of Human Resource Management, 33*(11), 2256–2284.

Al-Husan, B. F., & James, P. (2003). Cultural control and multinationals: The case of privatized Jordanian companies. *International Journal of Human Resource Management, 14*(7), 1284–1295.

Aladwan, K., Bhanugopan, R., & Fish, A. (2014). Managing human resources in Jordanian organisations: Challenges and prospects. *International Journal of Islamic and Middle Eastern Finance and Management, 7*(1), 126–138.

Ali, E. M., & Aameed, S. A. (2016). HRM issues and challenges in healthcare. *International Journal of Management, 7*(2), 165–176.
Alsarhan, F., & Valax, M. (2021). Conceptualization of wasta and its main consequences on human resource management. *International Journal of Islamic and Middle Eastern Finance and Management, 14*(1), 114–127.
Altarawneh, I. (2009). Training and development evaluation in Jordanian banking organisations. *Research and Practice in Human Resource Management, 17*(1), 1–21.
Amin, M., Khairuzzaman Wan Ismail, W., Zaleha Abdul Rasid, S., & Daverson Andrew Selemani, R. (2014). The impact of human resource management practices on performance: Evidence from a Public University. *The TQM Journal, 26*(2), 125–142.
Bakir, C. (2022). Why do comparative public policy and political economy scholars need an analytic eclectic view of structure, institution and agency? *Journal of Comparative Policy Analysis: Research and Practice, 24*(5), 430–451.
Becker, B. E., & Huselid, M. A. (1998). High performance work systems and firm performance: A synthesis of research and managerial implications. In G. R. Ferris (Ed.), *Research in personnel and human resource management* (Vol. 16, pp. 53–101). Greenwich, CT: JAI Press.
Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal, 15*(3), 67–94.
Boyer, R. (2005). *Complementarity in Regulation Theory, Socio-Economic Review, 3*(2), 366–371.
Brewster, C. (2013). European model of human resource management. In E. H. Kessler (Ed.), *Encyclopedia of management theory*. London: Sage.
Chow, I., Huang, J., & Liu, S. (2008). Strategic HRM in China: Configurations and competitive advantage. *Human Resource Management, 47*(4), 687–706.
Clark, J. (2004). Social movement theory and patron-clientelism: Islamic social institutions and the middle class in Egypt, Jordan, and Yemen. *Comparative Political Studies, 37*(8), 941–968.
Cooke, F. L., Wood, G., Wang, M., & Veen, A. (2019). How far has international HRM travelled? A systematic review of literature on multinational corporations (2000–2014). *Human Resource Management Review, 29*(1), 59–75.
Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.
Crouch, C. (2005). *Three Meanings of Complementarity. Socio-Economic Review, 3*(2), 359–363.
Crouch, C., Schroeder, M., & Voelzkow, H. (2009). Regional and sectoral varieties of capitalism. *Economy and Society, 38*(4), 654–678.
Cunningham, B. (2007). All the right features: Towards an 'architecture' for mentoring trainee teachers in UK further education colleges. *Journal of Education for Teaching, 33*(1), 83–97.
Darwish, K. T., & Singh, S. (2013). Does strategic human resource involvement and devolvement enhance organisational performance? Evidence from Jordan". *International Journal of Manpower, 34*(6), 674–692.
Darwish, T. K., Singh, S., Batsakis, G., & Potočnik, K. (2024). Cross-country analysis of HRM parameters in emerging markets: An assessment of measurement invariance. *British Journal of Management, 35*(2), 692–705.
Darwish, T. K., Singh, S., & Mohamed, A. F. (2013). The role of strategic HR practices in organisational effectiveness: An empirical investigation in the country of Jordan. *International Journal of Human Resource Management, 24*(17), 3343–3362.
Darwish, T., Singh, S., & Wood, G. (2016). The impact of human resource practices on actual and perceived organizational performance in a Middle Eastern emerging market. *Human Resource Management, 55*(2), 261–281.
Darwish, T. K., Wood, G., Singh, S., & Singh, R. (2020). Human resource management in India: Performance and complementarity. *European Management Review, 17*(2), 373–389.
Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal, 39*, 949–969.
DeNisi, A., & Smith, C. E. (2014). Performance appraisal, performance management, and firm-level performance: A review, a proposed model, and new directions for future research. *The Academy of Management Annals, 8*(1), 127–179.
Dundon, T., & Rafferty, A. (2018). The (potential) demise of HRM? *Human Resource Management Journal, 28*(3), 377–391.
Elarabi, H. M., & Johari, F. (2014). The impact of human resources management on healthcare quality. *Asian Journal of Management Sciences & Education, 3*(1), 13–22.
Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.
Gerhart, B. (2007). Modeling HRM and performance linkages. In P. Boxall, J. Purcell, & P. Wright (Eds.), *Oxford handbook of human resource management*. Oxford: Oxford Univ. Press.
Goergen, C., Brewster, C., & Wood, G. (2009). Corporate governance and training. *Journal of Industrial Relations, 51*(4), 459–487.
Goergen, M., Brewster, C., Wood, G., & Wilkinson, A. (2012). Varieties of capitalism and investments in human capital. *Industrial Relations: A Journal of Economy and Society, 51*(1), 501–527.
Gooderham, P. N., Morley, M. J., Parry, E., & Stavrou, E. (2015). National and firm-level drivers of the devolution of HRM decision making to line managers. *Journal of International Business Studies, 46*(6), 715–723.
Haak-Saheem, W., & Darwish, T. K. (2021). Human resource management in the middle east. In E. Parry, M. J. Morley, & C. Brewster (Eds.), *The Oxford handbook of contextual approaches to human resource management* (pp. 327–344). Oxford: Oxford University Press.
Haak-Saheem, W., & Festing, M. (2018). Human resource management in Dubai – a national business system perspective. *International Journal of Human Resource Management, 31*(14), 1863–1890.
Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.) Upper Saddle River, NJ.
Hall, P., & Soskice, D. (2001). "An Introduction to the varieties of capitalism. In P. Hall, & D. Soskice (Eds.), *Varieties of capitalism: The institutional basis of competitive advantage*. Oxford: Oxford University Press.
Hancke, B., Rhodes, M., & Thatcher, M. (2007). "Introduction. In B. Hancke, M. Rhodes, & M. Thatcher (Eds.), *Beyond varieties of capitalism: Conflict, contradiction, and complementarities in the European economy*. Oxford: Oxford University Press.
Hiltrop, J. M., Despres, C., & Sparrow, P. (1995). The changing role of HR managers in Europe". *European Management Journal, 13*(1), 91–98.
Hussein, H. (2018). Tomatoes, tribes, bananas, and businessmen: An analysis of the shadow state and of the politics of water in Jordan. *Environmental Science & Policy, 84*, 170–176.
Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal, 55*(6), 1264–1294.
Kehoe, R. R., & Wright, P. M. (2013). The impact of high-performance human resource practices on employees' attitudes and behaviors. *Journal of Management, 39*(2), 366–391.
Lane, C., & Wood, G. (2009). Capitalist diversity and diversity within capitalism". *Economy and Society, 38*(4), 531–551.
Lincoln, J., & Kalleberg, A. (1990). *Culture, control and commitment: A study of work organization in the United States and Japan*. Cambridge, England: Cambridge University Press.
Lucas, R. E. (2012). *Institutions and the politics of survival in Jordan: Domestic responses to external challenges, 1988-2001*. New York: SUNY Press.
MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organisational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review, 48*(2), 197–221.
Macky, K., & Boxall, P. (2007). The relationship between 'high-performance work practices' and employee attitudes: An investigation of additive and interaction effects. *International Journal of Human Resource Management, 18*(4), 537–567.
Mair, J., & Marti, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing, 24*(5), 419–435.
Melhem, M. J., & Darwish, T. K. (2023). Employee voice in Jordan: Challenges and opportunities. In T. fAdisa, C. Mordi, & E. Oruh (Eds.), *Employee voice in the global south*. Routledge.
Mellahi, K., & Wood, G. (2003). From kinship to trust: Changing recruitment practices in unstable political contexts. *International Journal of Cross Cultural Management, 3*(3), 369–381.
Mohammad, T., & Darwish, T. K. (2022). Human resource management in Jordan: Challenges and future prospects. In T. A. Adisa, & C. Mordi (Eds.), *HRM in the global south* (pp. 155–187). Springer.
Mohammad, T., Darwish, T. K., Singh, S., & Khassawneh, O. (2021). Human resource management and organisational performance: The mediating role of social exchange. *European Management Review, 18*(1), 125–136.
Mwema, N. W., & Gachunga, H. G. (2014). The influence of performance appraisal on employee productivity in organizations: A case study of selected WHO offices in east Africa. *International Journal of Social Sciences and Entrepreneurship, 1*(11), 324–337.
Ozcan, Y. A., Luke, R. D., & Haksever, C. (1992). Ownership and organizational performance: A comparison of technical efficiency across hospital types. *Medical Care, 30*(9), 781–794.
Panayotopoulou, L., Bourantas, D., & Papalexandris, N. (2003). Strategic human resource management and its effects on firm performance: An implementation of the competing values framework. *International Journal of Human Resource Management, 14*(4), 680–699.
Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organizational performance: Analysis of a causal model. *International Journal of Human Resource Management, 14*(7), 1246–1266.
Pfeffer, J. (1998). Seven practices of successful organizations. Part 2: Invest in training, reduce status differences, don't keep secrets. *Health Forum Journal, 42*(2), 55–57.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.
Pulakos, E. D., Hanson, R. M., Arad, S., & Moye, N. (2015). Performance management can be fixed: An on-the-job experiential learning approach for complex behavior change. *Industrial and Organizational Psychology, 8*(1), 51–76.
Rezaei Zadeh, M., Haak-Saheem, W., Darwish, T. K., & Singh, S. (2020). The impact of leadership on absorptive capacity: New insights from the UAE. *Canadian Journal of Administrative Sciences - Revue Canadienne des Sciences de l Administration, 37*(4), 448–458.
Richardson, H. A., Simmering, M. J., & Sturman, M. C. (2009). A tale of three perspectives: Examining post hoc statistical techniques for detection and correction of common method variance. *Organizational Research Methods, 12*(4), 762–800.
Robinson, J. A., Torvik, R., & Verdier, T. (2006). Political foundations of the resource curse. *Journal of Development Economics, 79*(2), 447–468.
Schneider, B. R. (2009). Hierarchical market economies and varieties of capitalism in Latin America. *Journal of Latin American Studies, 41*(3), 553–575.
Schwarz, A., Rizzuto, T., Carraher-Wolverton, C., Roldán, J. L., & Barrera-Barrera, R. (2017). Examining the impact and detection of the" urban legend" of common method bias. *ACM SIGMIS - Data Base: The DATABASE for Advances in Information Systems, 48*(1), 93–119.
Singh, S., Darwish, T. K., Costa, A. C., & Anderson, N. (2012). Measuring HRM and organisational performance: 'concepts, issues, and framework. *Management Decision, 50*(4), 651–667.

Singh, S., Darwish, T. K., & Potočnik, K. (2016). Measuring organizational performance: A case for subjective measures. *British Journal of Management, 27*(1), 214–224.
Singh, S., Wood, G., Darwish, T. K., Fleming, J., & Mohamed, A. F. (2019). Human resource management in multinational and domestic enterprises: A comparative institutional analysis in southeast Asia. *Thunderbird International Business Review, 61*(2), 229–241.
Stavrou, E. T., & Brewster, C. (2005). The configurational approach to linking strategic human resource management bundles with business performance: Myth or reality? *Management Revue, 16*(2), 186–201.
Stephan, U., Uhlaner, L. M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies, 46*, 308–331.
Streeck, W. (2005). *Requirements for a Useful Concept of Complementarity, Socio-Economic Review, 3*(2), 363–366.
Teti, A., Abbott, P., & Cavatorta, F. (2017). *The Arab uprisings in Egypt, Jordan and Tunisia: Social, political and economic transformations*. Cham: Springer.
Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review, 14*(3), 423–444.
Wall, T., & Wood, S. (2005). The romance of human resource management and business performance, and the case for big science. *Human Relations, 58*(4), 429–462.
Webster, E., & Wood, G. (2005). Human resource management practice and institutional constraints". *Employee Relations, 27*(4), 369–385.
Weir, D. (2020). Wasta: Advancing a holistic model to bridge the micro-macro divide. *Management and Organization Review, 16*(3), 657–685.
Whitley, R. (1999). *Divergent capitalisms: The social structuring and change of business systems*. Oxford, England: Oxford University Press.
Wood, G., Brewster, C., & Brookes, M. (2014). *Human resource management and the institutional perspective*. New York: Routledge.
Wood, G., Darwish, T. K., Alanezi, A. N., & Singh, S. (2020). Indigenization of staffing in MNEs: The case of Saudi Arabia. *Asia Pacific Journal of Management, 37*, 879–898.
Wood, G., Dibben, P., Stride, C., & Webster, E. (2011). HRM in Mozambique: Homogenization, path dependence or segmented business system?". *Journal of World Business, 46*(1), 31–41.
Wood, G., & Frynas, J. G. (2006). The institutional basis of economic failure: Anatomy of the segmented business system. *Socio-Economic Review, 4*(2), 239–277.
Wood, G., & Horwitz, F. M. (2015). Theories and institutional approaches to HRM and employment relations in emerging markets. In F. M. Horwitz, & P. Budhwar (Eds.), *Handbook of human resource management in emerging markets* (pp. 19–41). Cheltenham: Edward Elgar Publishing.
Wood, G., & Wright, M. (2015). Corporations and new statism: Trends and research priorities. *Academy of Management Perspectives, 29*(2), 271–286.
Yang, & Lin, C. Y.-Y. (2009). Does intellectual capital mediate the relationship between HRM and organizational performance? Perspective of a healthcare industry in taiwan". *International Journal of Human Resource Management, 20*(9), 1965–1984.

Tamara Mohammad, PhD, is an Assistant Professor of Human Resource Management at the American University in the Emirates. She holds a PhD in Human Resource Management from the University of Gloucestershire in UK, and a dual master's degree in Business Administration and International Business (Vancouver Island University and University of Hertfordshire). During her career, she has instructed and advised students in areas of HR Management, Business, Management and Organizational Behaviour at various academic institutions including Canada, Jordan, and the UK. Her research interests sit at the intersection of HR practices, diversity, social exchange, healthcare, institutional theory, and organizational performance.

Tamer Darwish is a Professor in Human Resource Management (HRM), and the Head of HRM Research Centre in the Business School, University of Gloucestershire. He is also an Academic Fellow of the Chartered Institute of Personnel and Development (CIPD). His research interests lie in the areas of strategic HRM, international and comparative HRM, and measurement of organisational performance, with a particular focus on emerging markets. His research has appeared in leading management and HRM journals.

Osama Khassawneh is an experienced HR academic and researcher. He currently serves as an Assistant Professor at University Canada West in Vancouver, Canada. With over two decades of experience in the industry and academia, his research interests lie in the areas of HR, leadership, and OB.

Professor Geoffrey Wood is DanCap Chair of Innovation and Head of DAN Management at Western University in Canada, and Visiting Professor at Trinity College, Dublin. Previously, he served as Dean and Professor of International Business, at Essex Business School and before then as Professor of International Business at Warwick Business School, UK. He has authored/co-authored/edited eighteen books, and over two hundred and twenty articles in peer-reviewed journals. He holds honorary positions at Griffith and Monash University in Australia. He is Incoming Editor in Chief of the Academy of Management Perspectives, Official Journal of the Academy of Management (US). He also is Editor in Chief of Human Resource Management Journal. He also edits the Chartered ABS Journal Ranking list, and the Annals of Corporate Governance.