Received: 5.April .2024 Revised:1.Dec .2024 Accepted:15-.Dec.2024

Journal of Business Sustainability
Vol 2024., No1., DEC, 2024
https://met.zu.edu.jo/jbs/ar/

Analysis of HR practices in SMEs in Jordan

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ABSTRACT

Several recent Human Resource Management (HRM) research analyses assert that knowledge management and intellectual assets are the leading drivers of competitiveness, productivity, and organizational success. The following report studies how knowledge-based HRM practices, intellectual capital, small- and medium-business processes, and product innovation are linked (SMEs). Data were acquired from 250 Jordanian SMEs via a random sample method. We conducted a computational structural equation modeling (CB-SEM) test to see if our developed research model is viable. The findings show that small businesses with knowledge-based HRM practices, especially in knowledge management, are more likely to have product and process innovation, intellectual capital, and knowledge management capabilities. There is also an influence on innovativeness via intellectual capital and the additional knowledge management capabilities SMEs possess. The emergence of intellectual capital as a predictive factor of SME's process and product innovation also appears to be a reliable trend. The mediation effect of intellectual capital and knowledge management capacity was finally discovered regarding the connection between SME knowledge-based HRM practice and product and process innovation. In the study of HRM, there is no complete explanation of how knowledge management promotes innovation. This research seeks to uncover the structural process among knowledge-based HRM practices and innovation by investigating the connections between managerial knowledge capacity and intellectual assets in the context of knowledge-based view (KBV) theory. This study was conducted in a non-Western culture and provided empirical evidence that non-knowledge-based HRM practices lead to innovation for SMEs. The conclusions give scholars and managers vital information and provide the groundwork for future research.

Keywords: Human resource, SMEs, Intellectual assets, Innovation process, Knowledge-based capacity.

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1. INTRODUCTION

Jordan's economy is known as one of the small and medium enterprises (SMEs), where 98 percent of businesses and 60 percent of the labor force consists of small businesses with less than 50 employees, who together are a majority of Jordan's business with about 50 percent of GDP value as of the country's overall product economy. Jordan's SME sector has faced several difficulties, including an economic shift to a market economy where development is prevalent (Al-Weshah, Kakeesh, & Alhammad, 2022). The SMEs' position has been affected because of extremely rapid development. Jordan first introduced its open market and deregulation policies in 2000. Then, after nine years, the SME industry was hit by the next economic calamity. SMEs contribute heavily to job creation in Jordan. Research shows that SMEs positively impact lowering the unemployment rate in Jordan (Allozi, Alshurideh, AlHamad, & Al Kurdi, 2022). It's got all the crucial elements for improvement and job creation. Increasing evidence points to the fact that SMEs play a crucial role in the Jordanian economy. Small and medium enterprises create the bulk of new job opportunities and most ideas that drive economic growth. SMEs are the only means of allowing many Jordanians to receive new work prospects (Al-Hyari, 2020). The human resource (HR) strategy for attracting and retaining top personnel is extremely important, especially in a climate of increased competition from a knowledge economy (Alfawaire & Atan, 2021). Understanding HRM will be extremely important for motivating, selecting, and retaining employees who work on innovative processes and products (Kurdi, Alzoubi, Akour, & Alshurideh, 2022; Rasool, Samma, Wang, Zhao, & Zhang, 2019). Human resource practices that emphasize experience, skills, and technologies as critical knowledge conduits are in operation (Vrontis et al., 2022). A durable competitive advantage demands resource-constrained SMEs actively seeking knowledge inflows and outflows. To maintain competitiveness in the SME context, it is necessary to have strategic movements of knowledge (Ojha, Patel, & Parida, 2023). Innovative thinking is based on the enterprise's knowledge assets. Extending beyond the management of human resources and knowledge management, a previous study also demonstrated the impact of intellectual capacity, which is intellectual content – knowledge, details, experience, core methodology, intellectual property, and consumer experience – that can be put to be used to create wealth (Abd-Elrahman, El-Borsaly, Hafez, & Hassan, 2020; Trequattrini, Lardo, Cuozzo, & Manfredi, 2022). There has been a realization among modern firms that knowledge-resource-dominated societies have emerged where the ability to get a significant intellectual capital advantage is key to competing (Li, Song, Wang, & Li, 2019). Scholars point to the shifting of strength from tangible assets to intangibles, like intellectual capital, as the primary driver of organizations' success and development (Baima, Forliano, Santoro, & Vrontis, 2021); thus, organizations must create strategies to empower intellectual capital and embed it into their corporate cultures. Several studies concluded that for the innovation process to be successful, a definite knowledge input is necessary (Aliasghar, Sadeghi, & Rose, 2023; Azeem, Ahmed, Haider, & Sajjad, 2021; Castaneda & Cuellar, 2020). Organizations should look at knowledge-based HRM, knowledge management capability, and intellectual capital to respond to changing business conditions (Garcia-Perez, Ghio, Occhipinti, & Verona, 2020; Hayaeian, Hesarzadeh, & Abbaszadeh, 2022). This research aims to fill the research gap by identifying the critical factors in predicting innovation via the impact of HRM, intellectual capital, and KMS. It's well-known that in the area of HRM and innovation, little empirical evidence exists (Yao, Marescaux, Ma, & Storme, 2023). Although scholars such as Sokolov and Zavyalova (2021); Barrena-Martinez, López-Fernández, and Romero-Fernández (2019), who studied the intellectual capital-HRM interactions and discovered a link between the two, as well as Cooke, Xiao, and Chen (2021), who studied how successful companies designed their HRM in the context of China, may have collected some useful data, there is still no consensus on whether HRM has a positive or negative effect on innovation. Research revealed that knowledge-based HRM processes contribute significantly to corporate innovation (Le, 2023). There is no proof that knowledge-based HRM practices, knowledge management capacity, human assets, and innovation in SMEs are linked (Singh, Mazzucchelli, Vessal, & Solidoro, 2021). But this research fills that gap by having empirical contributions to the body of knowledge and practice. Many academics have tried to develop a knowledge-based view (KBV) of firms, focusing on Western firms. KBV aims to clarify how knowledge, which is the resource in question, impacts production efficiency and gives a competitive advantage. We must go past research that overlooks the true causes of success in these approaches (Grant & Phene, 2022; Herden, 2020). This study will explain and conceptualize how knowledge-based HRM practices are related to knowledge accumulation, the subsequent flow of employee intellectual capital, and how they indicate a firm's ability to innovate. This study will extend the context theoretical contribution in literature by providing research on the relationships between HRM, organizational learning, intellectual capital, and innovation in a non-Western setting.

2. Literature review

While it's tough to anticipate how HRM will be affected in the future, it's clear that it will be radically transformed by introducing new technology, globalization, and sweeping developments in the industry and how people work (Pandey, Balusamy, & Chilamkurti, 2023). For example, HRM strategies have evolved into a powerful tool for sustainability that has a competitive advantage in Western countries (Hamadamin & Atan, 2019). Strategic HRM techniques benefit and enhance companies (Gupta, 2020). Strategic HRM strategies prioritize building people resources that cannot be copied easily (Greer, 2021). HRM is seen as a system that directs and manages people to secure sustained competitive advantage, although there are differing perspectives on it (Chadwick & Flinchbaugh, 2021). Management information systems (KMS) support organizational learning by collecting and organizing content and methods knowledge and allowing it to be accessible to all employees (Fitriastuti, Sujoko, Herawan, & Vemberi, 2020). Knowledge management is an intricate strategy for improving a firm's knowledge economy (Santoro, Thrassou, Bresciani, & Del Giudice,

2019). Knowledge management involves a range of factors such as human resources practices, technology, culture, and organizational structures, according to (Zaim, Muhammed, & Tarim, 2019). "Innovations and new ideas". Implementation of KMS requires dealing with human factors on top of being technological (Abu-AlSondos, 2023). That knowledge would help inform HRM practices.

2.1 Knowledge based hrm practices

Training, recruiting, remuneration, and performance assessment are significant in organizational success (Anwar & Abdullah, 2021). As Huselid points out, "demands for fluency extend far beyond the requirements of proficiency" (Huselid & Becker, 1996). Knowledge-based HRM methods include knowledge-based approaches. HRM techniques are specifically geared toward boosting an organization's learning process. Managers must alter long-term HRM changes to help create new knowledge and co-create with their colleagues in their workplaces (Hewett & Shantz, 2021).

2.1.1 Recruitment based on knowledge

It is said that recruitment is the process of discovering, recruiting, and obtaining the services of qualified individuals to carry out a business's various needs for its workforce (Mahapatro, 2021). When looking for new employees, it's crucial to go beyond considering the employees' existing skill set, expertise, or experience; instead, the potential is the main consideration. Employees that have great potential to be good learners are more apt to study and gain the skills or knowledge needed for innovation, according to Lam, Nguyen, Le, and Tran (2021). Knowledge-based recruitment places focus on picking employees who are educated and knowledgeable.

2.1.2 Performance evaluation based on knowledge

Employees are motivated by the implementation of performance evaluation since it helps to establish the behavior they must do (Murphy, 2020). Managers should consider including specific and explicit performance measures for knowledge creation, application, and sharing processes to ensure the process is effective (Muhammed & Zaim, 2020). Employees tend to enjoy knowing how they are doing and where they are going. This motivates employees better (Fowler, 2023). Performance evaluation emphasizes feedback and development because this information can highlight disparities between targets and employees' performances, encouraging employees to work smarter (Chien, Mao, Nergui, & Chang, 2020). Employees can also increase their learning confidence by being tested on learning and growth (Chanana & Sangeeta, 2021). Employees are assessed according to their contribution and participation in developing the organization's knowledge process, which involves creating, sharing, and using information (Muhammed & Zaim, 2020).

2.1.3 Training of employees based on theory knowledge

Cabrera and Estacio (2022), found that skilled employees cannot sustain their competence indefinitely since their abilities tend to deteriorate and become obsolete. The design and implementation of training and development programs will help enhance the match between employee skill sets and their immediate requirements, thereby increasing human capital for the firm (Maity, 2019).

In addition to boosting their domain knowledge and creative problem-solving abilities, training helps individuals better connect the dots in the workplace, as per Lau and Ngo (2004). Knowledge-based career development entails training employees to be knowledgeable and learn various things. To do this, it's important to provide training to fit each employee's needs and continuously develop employees (Blanchard & Thacker, 2023).

2.1.4 Compensation for employees based on their knowledge

A review by Hoffman and Tadelis (2021) says that managerial remuneration practices assist keep employees' skill levels up. Managers commonly deploy intangible and tangible incentives to encourage the development of knowledge sharing, creation, and application among employees. Previous studies have concluded that it is important to provide employees with opportunities to apply what they know and generate new ideas, such as (Chanana & Sangeeta, 2021; Smids, Nyholm, & Berkers, 2020). Employees are compensated for their contributions to the company's knowledge process, including knowledge creation, sharing, and application (Muhammed & Zaim, 2020).

2.1.5 Career management via knowledge-based management

Career management assists in keeping and acquiring exceptional workers. Top employees have greater career chances in the firm, according to (Yildiz, Temur, Beskese, & Bozbura, 2020). The big elements of powerful knowledge-based career management include top management help, skill assessments, information making, communication, and different ways to improve employability. Knowledge-based career advancement means using the information a company has collected to assist employees in achieving their career objectives and in making the workforce more efficient (Nicolaescu et al., 2020).

3. Theoretical framework and research hypothesis

Knowledge-based theory (KBV) supports the idea that organizations exist to generate, merge, and apply that knowledge (Al Koliby, Mohd Suki, & Abdullah, 2022). In the case of businesses, the accumulation of information might be the difference between life and death. Businesses face confusing and unpredictable environments where imitation rarely succeeds (Alekseevna, 2023). Modern HR strategies are needed to encourage people to generate and apply information since it may be seen as a method of knowledge management. According to Agustian, Pohan, Zen, Wiwin, and Malik (2023), businesses improve their capacity for knowledge by hiring talented individuals. Investing in a company's hiring process is what it takes to determine the organization's value of human capital. Effective ways to encourage firms to become more knowledge-driven are hiring, recruiting, and training employees with intellectual potential and offering salary remuneration that makes it worthwhile for the firm to invest in its people.

H1: The correlation between Knowledge-based HRM strategies and performance positively impacts Jordan's SMEs' capacity to store knowledge.

Knowledge-based HRM focuses on encouraging employees to think creatively and advance company strategy. The structural features of organizations (such as expertise, customer relationships, social ideals, and professional skills) create intellectual capital and foster employees' abilities to grow wealth and value (Verma, Arya, Thomas, Bolognesi, & Mueller, 2023). Firms can improve their process innovative behavior, efficiency, transactional time, and access to information codified for the organization by using the structural relation aspect of intellectual capital (Ali et al., 2023), as well as their overall intellectual capital (X. Sun, 2022). Employee learning helps generate intellectual capital, as evidenced by employees inspiring others to learn and boosting company capabilities. Studies show that businesses influence the talents of their employees through the creation of HRM programs. Hayaeian et al. (2022) SMEs can boost the overall intellectual capital of their businesses by using knowledge-based HRM strategies.

H2: Intellectual capital grows when SMEs' staff are educated with knowledge-based HRM techniques in Jordan.

Incremental and radical developments depend heavily on HRM practices. It has been well-established that HRM practices have an impact on creativity (Ho, Soo, Tian, & Teo, 2023). The connection between HR strategies and organizational creativity has recently been proved more concretely (El-Kassar, Dagher, Lythreatis, & Azakir, 2022; Jeong & Shin, 2019). To resolve issues faster and simpler, organizations utilize expertise in the KMS, which specializes in HRM procedures (El-Farr & Hosseingholizadeh, 2019). This means that to better an organization's abilities to innovate, good knowledge management is vital (Azeem et al., 2021). Knowledge-based practices are linked to innovation performance (for example, as described by Singh et al. (2021). Kremer, Villamor, and Aguinis (2019) found a correlation between research and innovation, employee knowledge acquisition, and company creativity. Firms need to utilize KMS methods to create new ideas and information to make themselves creative (Wahjudewanti, Tjakraatmaja, & Anggoro, 2021).

H3 Understanding the importance of HRM in supporting innovations is vital for SMEs.

The connection between intellectual capital and knowledge management has been studied (Abeysekera, 2021). Several ingredients, including expertise, intellectual property, information, and knowledge, combine to build value at the core of intellectual capital (Paoloni, Coluccia, Fontana, & Solimene, 2020). Scholars agree that the importance of a firm's ability to generate a competitive advantage is proportional to the distinctiveness of its organizational knowledge (For example, see "Scholars like (K.-A. Sun & Lee, 2019). Suppose the quality of the knowledge acquired, used, and stored in an organization affects the type of intellectual capital created there. In that case, how an organization obtains, uses, and stores its knowledge will affect the type of intellectual capital it

has. It is impossible to characterize intellectual capital without referencing relational capital, structural capital, and competent knowledge management capabilities, as these are needed to utilize relational and structural capital properly.

H4 SME employees' intellectual capital capability is improved through SMEs' knowledge management capacity.

Knowledge, seen as the most crucial resource, has a large role in an organization's ability to obtain and retain its advantage over competitors (Azeem et al., 2021). Rehman and Iqbal (2020), claimed that an integrated KMS is essential to implement organizational innovativeness. This is bolstered by the belief that an inclusive KMS is critical to accomplishing that goal. The authors of Scuotto, Nespoli, Palladino, and Safraou (2022) emphasize that firms must have well-developed KM capabilities to recognize and respond to competitors. Another consideration is that product, and process innovation necessitates acquiring, communicating, and exploiting current and new information inside the company (Tortora, Chierici, Briamonte, & Tiscini, 2021). Higher levels of knowledge management ability in SMEs are likely to have a learning impact, which will quickly increase their competitiveness, as they can be dynamic in reaction to their market and lessen the chance of redundancy and think of creative ideas (Hassan & Raziq, 2019). Using deep knowledge to make products that embody and communicate corporate expertise supports continued investment in new goods.

H5: SME's capacity for knowledge management positively impacts product and process innovations.

Knowledge resources are understood to be everything available to a company that's both tangible and intangible. Intellectual capital is what makes databases, information systems, and written processes, which house the codified knowledge of your company, accessible for product and process innovation (Pokrovskaia, Korableva, Cappelli, & Fedorov, 2021). Companies achieve innovation by developing new or superior products and services. This can take many forms, such as products with radically improved features or new ones. Unlike, innovation incorporates the production of new information, which appears in one of two ways: either as input (concepts and ideas) or output (novel goods and processes). Intellectual capital is important when predicting innovation, which views it as something done by people, making its development depend on human capacities. Studies demonstrate a likely correlation between intellectual capacity and inventiveness (Hayaeian et al., 2022).

H6 Small-business employees' intellectual capital is influential on product and process developments.

Much-needed information is discovered and innovated into products, services, and procedures that serve the company by transforming general knowledge into targeted knowledge (Goyal, Ahuja, & Kankanhalli, 2020). For example, Chatterjee, Ghosh, and Chaudhuri (2020) suggest that the correct use of KMS is the way to revolutionize the business process. Unearthing, developing, and implementing new products and services, new technology, new organizational structures, new processes, and new productions are all part of the innovative efforts of companies (Marion & Fixson, 2021). Organizations generally rely on human resource management to achieve their goals, which are most frequently manifested in their ability to innovate. Barrena-Martinez et al. (2019), found that intellectual capital could help elucidate the connection between HRM practices and organizational outcomes. Knowing that they should encourage new employees to join the company's brain trust, corporations around the world have been advocating greater use of knowledge-based HRM practices since such policies boost a company's knowledge capacity building, and the amount of that will correspond to the firm's level of cognitive capital (Phaladi, 2021). Additionally, superior intellectual capital grants the ability to create an unmatchable process and product that competitors cannot mimic (Astuti, Datrini, & Chariri, 2023). Intellectual capital and knowledge management skills can thus function as critical factors in SME innovation processes, especially those based on knowledge-based HRM.

H7 The connection between knowledge-based HRM techniques and product and process developments of SMEs is mediated by employees' knowledge systemic approach and intellectual capital.

4. Sampling process and industrial processing

Trade liberalization and globalization have brought new opportunities and problems for Jordanian SMEs (small and medium-sized enterprises). This research investigates how knowledge-based HRM strategies used by SMEs in Jordan influence the growth of human capital, accumulation of knowledge, and the overall competitiveness of SMEs in the country. In Jordan, SMEs' market share has been calculated at 98%, the author found, meaning that the economy depends on the SME sector's success, which employs most

workers. SME classification is determined by the number of workers and the amount of investment capital. The expert translators used processes they are accustomed to translating the questionnaire from English to Arabic (Abubakar, Megeirhi, & Shneikat, 2018). The devices were tested using a study of 15 participants to examine the reliability of the equipment. Respondents were informed of the project's intentions, as they were in past studies. The lack of personal information about participants was considered to avoid social desirability bias and the risk of bias caused by the procedure (Bergen & Labonté, 2020). A randomized sample strategy was used to recruit HR managers and directors of Jordanian SMEs to boost the research's accuracy and reliability. A total of 250 participants who responded correctly finished the experiment; hence the data was collected from that group.

4.2 Measures and scales taken

The research of Kianto, Sáenz, and Aramburu (2017) gathered 13 items that help evaluate knowledge-based HRM. The eight items that Usmanova, Wang, Sumarliah, Mousa, and Maiga (2021) used to gauge knowledge management capacity were utilized in the present study.

The Lin, Yang, and Arya (2009) study utilized three items to catch intellectual capital. Elrehail et al. applied 13 elements for innovativeness (Škerlavaj, Song, & Lee, 2010). Scoring closer to 5 indicates a higher score. Items were constructed on a 5-point scale format, yielding greater scores the closer they are to 5.

4.3 Strategy of analysis

According to the author, he or she collected 250 valid responses before strategizing on analytic methods. To begin, we ran a frequency analysis on the demographic profiles of the participating SMEs in SPSS. The author then compares the demographic makeup of the enrolled SMEs with that of all Jordanian SMEs. The author writes about how to address biased results, which could affect the results. The researcher looks at the factors' reliability and validity and the theoretical framework in a second step. Confirmatory factor analysis (CFA) was utilized in the AMOS program, with emphasis on standardized factor loadings (SFL), validity (discriminant and convergent), and reliability.

5. Analysis of the data

According to the Jordanian Ministry of Trade and Industry, the SMEs categorization is derived from the number of employees present in the company. The SEM approach was used to run measurements and hypothesis tests with IBM SPSS AMOS. CFA (a statistical approach used to validate the factor structure of a set of observed variables) can provide construct validity that encompasses convergent and discriminant validity, which helps researchers detect and determine it (Bagozzi, 1980). Standardized factor loadings (SFL), convergent validity (CR), average variance extracted (AVE), and Cronbach's alpha (α) were used to test the validity and discriminate capacity of the scale.

Single-factor model indices displayed a bad fit, proving that CMB and/or CMV did not affect the measurement model (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). The factor loadings were all over .835 and ranged to .878, with significant T-values between 17.647 and 19.289. The above factors follow the specifications from the specifications previously given (Fornell & Larcker, 1981). The AVE value was .50 (Anderson & Gerbing, 1988), and the CR value was over .60 (Hair, Anderson, Babin, & Black, 2010). The index was above .70 (Miller, Nunnally, & Wackman, 1976). We found that the model is both converging and diverging with strong internal consistency because of the following. Research found that a strong positive correlation exists between knowledge-based HRM and intellectual assets ($r = .937$, $p < .001$), innovation / process innovation ($r = .975$, $p < .001$), and knowledge management capacity ($r = .959$, $p < .001$). For the second time, knowledge management capacity is found to have a positive and statistically significant association with intellectual capital ($r = .930$, p.001) and product and process innovation ($r = .962$, p.001). A positive and significant association exists between intellectual capital and product and process innovation ($r = .933$, $p < .001$). It's evident from these outcomes that the variables are tightly linked and follow the theoretical framework.

5.2 Structural model analysis

A considerable positive influence (β = .959, p < .001) is seen on knowledge management capacity, intellectual capital (β = .555, p < .001), and product and service creativity (β = .600, p < .001) by the application of knowledge-based HRM approach. These were the hypotheses we favored. Furthermore, the positive and significant effect of SMEs' knowledge management capacity on knowledge management (β = .399, p < .001) and product / process innovation (β = .311, p < .001) is evident. These two hypotheses, we came to believe, must be correct. The intellectual capital of SMEs improves both product and process innovation. The effect is rather significant (β = .082, p < .05). Thus, it was proven correct. It was also pointed out by Hayes (2015) that, unlike the Sobel test, bootstrapping reasoning is based on an estimation of the indirect impact itself rather than on hypotheses about the form of the sample mean of the indirect consequence, allowing it to circumvent the difficulty that has plagued the Sobel test. According to current SEM and bootstrapping features and advantages. The researcher tested hypothesis 7 using a validation sample of 5,000 by utilizing bootstrapping technique with a 95 percent bias-corrected confidence interval. The findings reveal that SMEs' intellectual capital and knowledge management capabilities connect knowledge-based HRM practices to innovativeness (β = .375, ρ < .001). Practical mediation may occur, with a degree of certainty of ρ = .000 (95% confidence interval: .262 to .480). We ended up backing hypothesis 7. Look at Table 6.

6. Discussions and conclusions

There is a lack of empirical and theoretical evidence on the relationship between knowledge-based human resource management, intellectual capital, & innovation in a non-Western work environment in the literature. To close this gap, the current study explores the links mentioned above, with the intention that the findings can be adopted by top management of organizations interested in converting their human resources into organizational success and, more specifically, innovations. This research is significant because it reveals the mechanical process that results in innovative products and services and the integration of knowledge-based human resource management methods, which is a precursor of intellectual capital in the past. Knowledge management, a significant predecessor of intellectual capital, was seen as a means of revitalizing the process. Consequently, by probing and confirming theories and concepts that originated in the Western Hemisphere in a non-Western setting, Jordan, this work makes significant theoretically and empirically contributions to the field. First and foremost, this study confirmed that knowledge-based human resource management methods had a favorable impact on the managerial knowledge capacity of SMEs. It has been suggested that the nature of a small or medium-sized enterprise's human resources impacts its inclination to build knowledge management capabilities. This observation is consistent with the findings of (Alexandru et al., 2020). These practices enable firms to create knowledge management capabilities quickly, thereby creating a channel for applying knowledge, resulting in superior product offers in the long run (Lee, Choi, & Lee, 2020).

Second, the findings of this article demonstrated that knowledge-based human resource management strategies had a favorable impact on the intangible resources of SME personnel. This discovery also corroborates other findings previously published in the literature before the current investigation (Hayaeian et al., 2022). Third, knowledge-based human resource management techniques favor the new product introductions of SMEs, meaning that the strength of a company's process or product innovativeness cannot be separated from its dependence on human resource management practices. In addition, Papa, Dezi, Gregori, Mueller, and Miglietta (2020), who explored the impact of human resource management strategies on the company's innovation process, found that this finding is consistent with their findings. Fourth, the article discovered that the ability to manage knowledge favors the intangible resources of SME employees. According to the findings of this study, increasing innovation capabilities in SMEs necessitated the implementation of efficient knowledge management practices (Hassan & Raziq, 2019). In order to achieve a significant level of innovativeness, a company must utilize its innovation capabilities in the process of creating new value. Fifth, this article discovered that SME's ability to manage their knowledge has a beneficial impact on their ability to innovate in the areas of product and process development. This finding implies that, in addition to the influence of knowledge management ability on intangible resources, it has a direct and considerable impact on the innovativeness of organizations. Being able to understand this outcome helps us to understand that information, both tacit and explicit, is a crucial building block for the innovation of a company. This result also

validates and strengthens the amount of knowledge that already exists in this field (Cao, Le, & Nguyen, 2022). It was also discovered in this article that the intellectual capital of SMEs personnel has a beneficial impact on product and service innovation, meaning that intellectual capital enables innovation through the proper use of wisdom and understanding by workers (Iskandar & Kaltum, 2021). Prior research has established a correlation between innovation and the firm's intellectual capital (Altındağ, Fidanbaş, & İrdan, 2019). The final finding of this article was that knowledge management competence and intellectual capital have a mediating influence on the relationship between experience and understanding human resource management (KBHRM) and operations and product innovation. This discovery is significant because it elicits the identification of additional mechanisms that may boost the effectiveness of experience and understanding human resource management practices on innovation. Beyond the fact that this study contributes to filling the gap in the literature by trying to analyses the mechanism for optimum solution influence of knowledge-based HRM practise on innovation, this finding indicates that small and medium-sized enterprises (SMEs) must devote sufficient attention to ways of knowing and intellectual capital within their organizations.

6.1 Implications or theory and practice

The significance of knowledge-based human resource management in SMEs has been recognized in previous studies; however, research examining cogent issues in this context has been lacking (e.g., Nasution et al., 2011; Nicolau and Santa-Mara, 2013). The current study provides an empirically proven outcome that highlights and confirms the relevance of knowledge-based human resource management in SMEs. Management can use the model described in this research to aid in conceptualizing the mechanisms that can be implemented in their organizations when attempting to generate unique value-adding products and services, as demonstrated in this study. The approach presented in this study is concentrated on the flow of knowledge in organizations, ranging from human resource practices to innovation. This assumption is congruent with the Knowledge-Based View (KBV) concept, modeled with many references and impetus in the organization's Resource–Based View (RBV). It is important to note that RBV does not place a high value on knowledge because it is regarded as a generic resource. This is the missing link.

In order to mitigate these disadvantages, KBV emphasizes the strategic significance of knowledge-based resources, which can provide a competitive advantage for businesses. Theoretically, this study contributes to the knowledge management & human resources management study streams by establishing a relationship between knowledge-based human resource management and innovation through the development of knowledge management ability and intellectual capital, respectively. In conclusion, the current analysis confirms the validity of the KBV assumption. According to the findings of this article, managers should build an awareness of how it works environment that will allow them to realize the rewards of KMS using knowledge-based human resource management methods. Finally, when knowledge-based HRM methods are supplemented with sufficient knowledge management capacity & intellectual capital, process and technology innovation can reach their zenith. As a result, managers must foster teamwork among their employees to facilitate knowledge exploration, development, and sharing among themselves. Organizations concerned with translating their human resources into organizational success can put the conclusions of this study into practice by implementing them at the highest levels of management. It is important to recognize that this study has several limitations, which are as follows. One, the information was gathered through a self-report approach, which made the outcome susceptible to social desirability. A causal inference may impact the outcome because the information was gathered at a single location and from a single source. Even though a random sampling method was used, the sample size appears modest, raising concerns about the sample selection. Currently, the results are restricted to Jordan and cannot be extrapolated to other nations or cultural work situations until further resources are available.

It has been discovered that there are significant practical consequences for managers who need to gain human resource (HR) skills and competencies to boost their capabilities. The process of acquiring & sharing information amongst employees fosters knowledge. Promoting information sharing through a reward system that favors combined efforts instead of individual ones is possible. Furthermore, managers can help establish an environment learning by providing the necessary infrastructure and encouraging the

development of social ties. On the other hand, it must have been discovered that instruction had no effect on invention; this situation must be further examined.

First and foremost, managers must be aware of the practices they should employ in the HRMS, as some activities, when coupled, can have a negative impact on the learning in the business. Similarly, the availability of individual appraisal & pay for performance is important. Such a situation will likely result in a dispute, which can be handled by careful selection & suitable fit among the HRMP to be integrated into the system. Furthermore, the fit should not be limited to the practices alone since the fit must also take into account the company's overall strategy. In addition, managers that create a safe working environment for their staff by substituting agreements with full-time schedules, and accepting & encourage risk-taking, will be more likely to stimulate creativity. Fourth, cultural issues should be addressed with attention, as ignoring them would negatively impact creativity. Cultural changes necessitate a change in management strategy, which is not always possible. Fifth, the necessity of selecting and employing individuals with different knowledge and high education, as well as taking the necessary steps to retain abilities and key personnel who are believed to be essential to the organization's success. A dynamic workplace allows this to be accomplished through career advancement, promotions, flexibility, autonomy, motivation, and investment in effective leadership methods. Finally, managers would deploy many human resource management systems; however, such systems should be developed in concert with one another. As noted in the review, the relationship between the theoretical basis of the HRMP and innovation is extremely noticeable. However, there is still room to investigate further hypotheses to explain, for example, this association in greater depth. Trait theory can be used since it describes the individual-level elements that might positively or negatively impact human resource management systems (Easa & Orra, 2021). Furthermore, when it comes to technique, most research had a small sample size, making it beneficial to use a larger sample size in the future. The influence of the environment in which the techniques were implemented should also have been carefully considered (Tamiminia et al., 2020).

Furthermore, the industry was taken into consideration; nonetheless, it would be interesting to examine the types of practices that would have an impact on each sector. Furthermore, the longitudinal strategy is rare since just four articles have used it, as observed (Bjornevik et al., 2022). So longitudinal studies might be used to determine the influence of the HRMP on creativity over time at various time intervals. Furthermore, no studies in the field have looked at the sample of examination before and after using the HRMP. Lastly, when conducted in person, face-to-face interviews would provide more in-depth information regarding the topic of study being investigated.

Two opposing viewpoints have been expressed regarding the sparseness of practices that have been encountered. In the first case, a call is made for a limited number of practices, resulting in increased versatility (Xing et al., 2020). While in the latter, it is noted that large sets of practices are included (Donate, Ruiz-Monterrubio, Sánchez de Pablo, & Peña, 2020), the former does not. Using alternative techniques or substituting existing practices would be another topic of interest to investigate further. Additionally, there is a lack of agreement on the types of practices that are matched and appropriate. Finally, including other variables to depict the relationship between human capital management and innovation is appealing, such as organizational structure, psychological contract, and organizational capital, which is a positive development.

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