Received 24 May 2023
Revised 13 October 2023
Accepted 26 January 2024

The effects of shaping employee work engagement and job satisfaction on company performance results: the mediating role of HRM outcomes in Central European MNCs

Marzena Stor
Department of Human Resources Management, Faculty of Management, Wroclaw University of Economics and Business, Wrocław, Poland

Abstract

Purpose – The main goal of the article is to determine the mediating role of human resources management (HRM) outcomes in the relationships between shaping employee work engagement and job satisfaction (SEWE&JS) and company performance results and to establish whether there are any identifiable regularities in this scope in the pre-pandemic and pandemic period in the headquarters (HQs) and foreign subsidiaries of multinational companies (MNCs).

Design/methodology/approach – The empirical research included 200 MNCs headquartered in Central Europe. The raw data in the variables were adjusted with the efficiency index (EI) to capture the actual relations between the variables under study. The partial least squares structural equation modeling (PLS-SEM) was used to verify the research hypotheses and assess the mediating effects.

Findings – The research findings show that the HRM outcomes positively mediate the relationships between SEWE&JS and the company performance results. HRM outcomes turned out to be a stronger mediator between SEWE&JS and company performance results in finance and quality in the HQs during the pandemic. By contrast, in the local subsidiaries, they were a stronger mediator of the relationships between the results in innovativeness and quality during the pandemic.

Originality/value – In addition to confirming the results of some other researchers, the research findings also provide new knowledge. They determine the mediating role of HRM outcomes in the relationship between SEWE&JS and the three categories of company performance results, namely finance, innovativeness and quality. In addition, they identify certain regularities in the four studied contexts, which is a novelty in this type of research. A novelty is also the use of employee key performance indicators (KPIs) in the data analysis as the efficiency index in analyzing the effect of the variables under study. The value of the research is also the fact that it covers HRM in MNCs established in Central Europe, which, compared to MNCs from the Western world, is not a frequent subject of research.

Keywords Employee work engagement, Job satisfaction, MNC, HRM, Company performance, Finance, Innovativeness, Quality, Central Europe, Crisis, Efficiency

Paper type Research paper

The project was financed by the Ministry of Education and Science in Poland under the program "Regional Initiative of Excellence" 2019–2023. Project number: 015/RID/2018/19. Edition of that article was financed under Agreement Nr RCN/SN/0330/2021/11 with funds from the Ministry of Education and Science, allocated to the "Rozwój czasopism naukowych" programme.

Central European Management Journal
Vol. 32 No. 3, 2024
pp. 490-510
Emerald Publishing Limited
e-ISSN: 2658-2430
p-ISSN: 2658-0845
DOI 10.1108/CEMJ-05-2023-0215

1. Introduction

Employee work engagement (EWE) and job satisfaction (JS) have been the subjects of research interest for several decades, including their impact on organizational performance (Harter, Schmidt, Agrawal, & Plowman, 2013). During this time, positive associations were identified between EWE and JS and various categories of company performance (Motyka, 2018). From the perspective of management science, such research is part of a broader interest in the relationships between human resources management (HRM) practices and organizational performance, which has also led to the establishment of many important relationships between these variables (*c.f.* Becker & Gerhart, 1996; Cascio, Boudreau, & Fink, 2019; Stor, 2023). It is worth noting, however, that in research on these relationships, HRM is sometimes treated as a factor composed of synergistically related personnel practices affecting selected categories of the organization's performance (Rogers & Wright, 1998; Pattnaik & Sahoo, 2020), and sometimes it is considered as a single type of activities (Boon, Den Hartog, & Lepak, 2019; Wood, 2021), also referred to as HRM subfunctions. In the latter approach, shaping employee work engagement and job satisfaction (SEWE&JS) is treated as one of the HRM subfunctions (Juchnowicz, 2014; Stor & Haromszeki, 2020). This means that the services provided by other HRM subfunctions may even be treated as resources that are significant to fostering EWE and JS (Lee, Rocco, & Shuck, 2020), which, in practice, may mean that the results of the entire HRM function may mediate the relationship between SEWE&JS and the results of the organization performance.

Although the literature on the subject contains many valuable research results on the relationships between the aforementioned variables, more and more often, there are also postulates to pay special attention to the context (Pass & Ridgway, 2022), because, in many cases, it determines how the research data are interpreted (Shuck, Kim, & Fletcher, 2021; Stor, 2022; Garengo, Sardi, & Nudurupati, 2022) and what value the findings have for business practitioners (Bailey, 2016). Against this background, it is assumed that SEWE&JS is particularly context-sensitive. The essence of contextualization in terms of country, culture, social conditions (Shuck *et al.*, 2021), economic sector or type of organization (Dillard & Osam, 2021) is indicated here. As for the organizations themselves, with regard to multinational companies (MNCs), it is postulated not to consider them as a single organism but to distinguish between the context of the headquarters (HQs) and its foreign subsidiaries (Meyer, Mudambi, & Narula, 2011; Farndale, 2017). Researchers also note that the context of the crisis deserves separate attention. A special type of crisis we have recently dealt with is the COVID-19 pandemic, which provides a special context for the study of SEWE&JS (Donovan, 2022), particularly in MNCs. However, due to the not-so-distant time from this pandemic, we have not yet seen much research in this area. Therefore, it can be said that this is a specific **research gap**.

The research presented in the article is a response to this identified research gap. The subject of interest is the effect of SEWE&JS, as one of the HRM subfunctions, on the company's performance results. This effect is analyzed in four types of contexts, that is, in the HQs of MNCs and in their foreign subsidiaries, and in both cases in the pre-pandemic and pandemic periods of COVID-19. Hence, **the main goal of the article**, identified with **the main research problem,** is to determine the mediating role of HRM outcomes in the relationships between SEWE&JS and company performance results and to establish whether there are any identifiable regularities in this scope in the pre-pandemic and pandemic period of COVID-19 in the HQs and foreign subsidiaries of MNCs.

The empirical research was conducted in the MNCs headquartered in Central Europe, which makes yet another unique context. The **main goal** was to identify, analyze and diagnose the relationships between the aforementioned variables. The research results bring some added value to the discipline of management sciences. In addition to confirming the results of some other researchers, they also provide new knowledge. Namely, they allow for

determining the mediating role of HRM outcomes in the relationship between SEWE&JS and the three categories of company performance results, namely finance, innovativeness and quality. In addition, they identify certain regularities in the four studied contexts, which is a novelty in this type of research. A novelty is also the use of employee key performance indicators (KPIs) as the efficiency index (EI) in the analysis of the effect of the variables under study.

The article is structured as follows. At the beginning, the theoretical framework is presented as a construct resulting from the literature review. The next part is devoted to the description of the empirical research methodic. Further, the results of empirical research are presented. In the last part, the research findings are summarized, and the most important implications for management science and practice are discussed.

2. The theoretical framework

2.1 The general assumptions about the phenomena under study

EWE and JS have diverse definitions in the literature (Kahn, 1990, p. 694). EWE refers to active psychological engagement in roles, characterized by vigor, dedication and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002, p. 74). It includes commitment, attachment, involvement, effort, attitude, energy and attendance, impacting employee performance and organizational success (Shuck, Osam, Zigarmi, & Nimon, 2017). JS, defined by Locke, reflects overall job enjoyment and liking (Locke, 1976, p. 1304). It is influenced by needs and temporary events and is less predictive of business outcomes compared to EWE (Robertson-Smith & Markwick, 2009). Engaged employees may experience occasional dissatisfaction but remain committed due to higher values (Stor, 2023). Highly engaged employees consistently exceed expectations (Harter *et al.*, 2013). EWE represents a multidimensional motivational state involving diverse personal resources invested in fulfilling organizational roles (Saks, Gruman, & Zhang, 2022), providing a holistic view of employee motivation.

In this article, EWE is defined as a specific attitude of an employee and the resulting behavior characterized by identification with organizational goals and values, taking actions consistent with the organization's interests, willingness to belong to the organization, readiness to act, giving high rank to the company's interests, undertaking activities that go beyond the standards, with simultaneous readiness for responsibility in the conditions of independent action (Stor & Haromszeki, 2020, p. 54). As far as job satisfaction is concerned, it is understood as an emotional state resulting from the employee's perception of his or her own work as giving pleasure and providing what an employee considers important.

Shaping EWE and JS in organizations is crucial for employee and company performance. Both are influenced by employees' organizational experiences (Plaskoff, 2017, p. 137), and recent research highlights changing employee expectations. Moving from a performance-centered to a human-centered approach is essential. Studies show that solely prioritizing results harms employee well-being and organizational performance (Boccoli, Gastaldi, & Corso, 2023). Therefore, in this article, it is assumed that SEWE&JS involves activities that are intended to stimulate employee engagement and job satisfaction in such a way as to achieve the organization's goals and ensure its success by creating friendly working conditions (Stor, 2023, p. 97). In addition, it was also assumed that SEWE&JS is one of the essential subfunctions of HRM (*c.f.* Juchnowicz, 2014; Kim & LePine, 2019; Stor, 2023).

2.2 SEWE&JS and company performance results

Research shows that SEWE&JS positively impact organizational performance, with EWE and JS serving as predictors of performance (Kessler, Lucianetti, Pindek, Zhu, & Spector, 2020). Positive effects are observed in employee turnover, safety incidents, absenteeism,

retention, performance, productivity, company productivity, quality standards, customer satisfaction, financial performance, profitability and organizational development (Schaufeli *et al.*, 2002; Harter *et al.*, 2013; Shuck *et al.*, 2017; Sun & Bunchapattanasakda, 2019; Motyka, 2018; Taipale, Selander, Anttila, & Nätti, 2011; Farndale, 2017). These effects apply to both domestic and multinational companies.

For the purposes of the research presented in this article, the company's performance results were divided into four categories: the scope of HRM, finance, innovativeness and quality. It should also be clarified that the concept of company performance results is used, which is not the same as company performance. It is based on the assumption that performance result means the final outcome to which certain activities lead. In contrast, performance alone is the act of executing certain activities (Stor, 2023, p. 43). Hence, the article focuses on the ultimate measure of the results of activities at a particular point in time, and not on the activities themselves.

As a result of the literature review, one main hypothesis and four auxiliary hypotheses have been formulated to describe the relationships between SEWE&JS and company performance results as follows:

H1. SEWE&JS directly and positively affects the company's performance results.

H1a. SEWE&JS directly and positively affects the company's performance results in HRM (HRM outcomes).

H1b. SEWE&JS directly and positively affects the company's performance results in finance.

H1c. SEWE&JS directly and positively affects the company's performance results in innovativeness.

H1d. SEWE&JS directly and positively affects the company's performance results in quality.

2.3 The mediating role of HRM outcomes

In accordance with the assumptions mentioned earlier in the article, SEWE&JS is treated as one of the HRM subfunctions and, therefore, does not function in a vacuum but in connections with other HRM subfunctions (*c.f.* Juchnowicz, 2014; Stor, 2021). In practice, this may mean that SEWE&JS can also influence company performance results indirectly through HRM outcomes (Garengo *et al.*, 2022). As a side note, it should be explained that in order to maintain terminological logic, HRM outcomes are identified here with the company's performance results in HRM. However, the concept of outcomes instead of results is used when HRM takes the position of mediator. Regarding this indirect impact of SEWE&JS through HRM, there has been a long-standing consensus in the literature that the focus should be on HRM systems rather than on individual subfunctions, as the effects of HRM subfunctions may depend on other HRM subfunctions (Boon *et al.*, 2019) and their results (Saks *et al.*, 2022). The same applies to EWE and JS, which can be shaped at various organizational levels in connection with different HRM subfunctions that can create a positive and engaging working environment (Sivapragasam & Raya, 2018). Certain HRM services are considered resources for promoting engagement (Lee *et al.*, 2020), and engaging leaders, including HR professionals and direct superiors, play crucial roles in these processes (Mazzetti & Schaufeli, 2022). Research across countries and organizations highlights that targeted HRM activities can enhance EE and JS levels (Knight, Patterson, & Dawson, 2017).

Against the background of the literature findings, one main hypothesis and three auxiliary hypotheses have been formulated, describing the mediating role of HRM outcomes in the relationship between SEWE&JS and company performance results as follows:

H2. The company's performance results in HRM positively mediate the relationships between SEWE&JS and the company's performance results.

H2a. The company's performance results in HRM (HRM outcomes) positively mediate the relationships between SEWE&JS and the company's performance results in finance.

H2b. The company's performance results in HRM (HRM outcomes) positively mediate the relationships between SEWE&JS and the company's performance results in innovativeness.

H2c. The company's performance results in HRM (HRM outcomes) positively mediate the relationships between SEWE&JS and the company's performance results in quality.

2.4 The pre-pandemic and pandemic context in MNCs

As indicated in the introduction, the research problem focuses on the relationship between selected variables in four specific contexts: pre-pandemic and pandemic periods, in HQs of MNCs and in their foreign subsidiaries. Similar to the Great Recession, the pandemic had a global impact, requiring organizations to adapt and address falling demand (Stor, 2011; Kim & Ployhart, 2014). The pandemic affected both the economy and people's lives, emphasizing the need for mental health care, resilience and employee support (Mańkowski, Szmeter-Jarosz, & Jezierski, 2022; Donovan, 2022). Effective SEWE&JS during the pandemic relied on an appropriate organizational climate and support from the organization and direct superiors (Zeidan & Itani, 2020; Reinwald, Zimmermann, & Kunze, 2021). Employer branding, new compensation, empowerment, work autonomy, communication, training, incentives and technology support were crucial to boosting EWE and JS (Agarwal, Arya, & Bhasin, 2022; Pass & Ridgway, 2022). Overall, during the pandemic, SEWE&JS activities were closely linked with other HRM subfunctions.

All this means that during the pandemic, the relationships between SEWE&JS and other HRM subfunctions may be more intense than before the pandemic. At the same time, the aggregate results of these subfunctions may be a stronger mediator of the relationships between SEWE&JS and the organization's performance results. For this reason, one main hypothesis and three auxiliary hypotheses have been formulated to describe the expected differences in the mediating role of the HRM outcomes in the pre-pandemic and pandemic periods as follows:

H3. During a pandemic, the company's performance results in HRM mediate the relationships between SEWE&JS and the company's performance results more strongly than in a pre-pandemic time.

H3a. During a pandemic, the company's performance results in HRM mediate the relationships between SEWE&JS and the company's performance results in finance more strongly than in a pre-pandemic time.

H3b. During a pandemic, the company's performance results in HRM mediate the relationships between SEWE&JS and the company's performance results in innovativeness more strongly than in a pre-pandemic time.

H3c. During a pandemic, the company's performance results in HRM mediate the relationships between SEWE&JS and the company's performance results in quality more strongly than in a pre-pandemic time.

As already mentioned, in the research, these hypotheses will be tested separately for the HQs of MNCs and their foreign subsidiaries, which is consistent with the postulated differentiation

of specific contexts (Meyer *et al.*, 2011; Farndale, 2017) that may be shaped differently for SEWE&JS due to local nationalities, cultures (Shuck *et al.*, 2021), economy (Dillard & Osam, 2021), level of a country's development, law (Aftab *et al.*, 2022) and many other factors.

3. The methodics of the conducted empirical research

3.1 The research sample, measures and data collection method

To emphasize the essence of the Central European research context, this part of the article deliberately has methodics in the title because it concerns only the components of the research process presented in this article and does not concern the science of research methods, which is what methodology deals with (see more: Stor, 2023, p. 27).

The empirical research took place at the end of Q1 2022 and covered 200 MNCs which were nonfinancial business entities, headquartered in a Central European country (Poland) and possessing foreign subsidiaries. Taking the official data of the Polish Central Statistical Office as a point of reference, it can be stated that the research sample constituted about 11% of the general population and made its representative sample in about 80% (Statistics Poland, 2022). Considering the type of economic activity according to NACE (the Statistical Classification of Economic Activities in the European Community), the size of the enterprise and the type of foreign direct investment (FDI), it can be concluded that the structure of the research sample largely corresponded to the general population. These characteristics were important insofar as they were used in the purposeful sample selection. It is worth noting that the MNCs under study employed a total of 76,740 employees worldwide and had over 400 foreign subsidiaries located in approximately 30 countries.

In the purposive sampling, two other criteria were applied. Namely, both the HQs and their foreign subsidiaries had to be predominantly owned by the Polish capital. Based on a review of research by other authors, it was assumed that the size of equity capital largely determines management activities in organizations. Therefore, its relative uniformity in the research sample may increase the comparability of the HQs and foreign subsidiaries. Thanks to this procedure, the context in the surveyed organizations can be perceived by the respondents in a similar way, and the measures used by the HQs to assess the results of foreign subsidiaries in different countries are understood in a similar way (cf. Farndale, 2017; Schlägel & Sarstedt, 2016). This is important in comparative research settled on benchmarking, and such a solution was used in the presented research. Another of the aforementioned criteria concerned the minimum period of operation on the market, which was four years, both in relation to the HQs and their foreign subsidiaries. It was assumed that this is the minimum time interval needed to identify causal relationships between variables of interest during the pre-pandemic and pandemic periods.

The research method was CATI (computer-aided telephone interview) based on a structured questionnaire. The selection of the respondents was also of a purposive nature because they had to possess knowledge about company performance and HRM and understand the measures applied within them (Richard, Devinney, Yip, & Johnson, 2009). As a result, the sample of personal respondents consisted of business owners (1%), managing directors/CEOs (2%), HR directors (50%), HR managers (46%) and HR business partners (1%). They provided information on two periods: (1) the pre-pandemic period of 2018–2019, and (2) the pandemic from the beginning of 2020 to the end of the first quarter of 2022, in which the interview was conducted.

Four variables were of research interest:

(1) company performance results – evaluated by the respondents in four categories (i.e. in finance, innovativeness, quality and HRM) in a benchmarking process against the companies of similar business profiles;

(2) the advancement level of SEWE&JS – assessed by the respondents in a benchmarking process by comparison to the best market practices;

(3) the significance level of SEWE&JS – meant how important the activities and processes within the scope of this HRM subfunction were for the company performance;

(4) the efficiency of employees' performance – understood as employees' work outcomes and assessed against the established standards in the meaning of KPIs (key performance indicators).

Each of these variables was evaluated on a 5-point scale, separately at the HQs and its biggest foreign subsidiary. The scales are presented in the lower part of Table 1.

3.2 The formulas applied for data conversion and statistical methods of data analysis

Before analyzing the collected research data, they were recalculated using unique formulas designed specifically for the research. The idea for such a conversion was born as a result of deeper considerations of the nature of the studied phenomena. Specifically, while numerous studies demonstrate the impact of HRM practices on employee performance results, which, in turn, directly influence company performance results (Cascio *et al.*, 2019; Garengo *et al.*, 2022), some studies enable the observation of incredibly surprising phenomena at times. For instance, even though a company's productivity is high and its employees achieve high KPIs, it may not be profitable at the same time. This may be due to intense market competition, reduced consumer demand, legal and hygiene restrictions and so forth, which could be observed during the Great Recession or the COVID-19 pandemic (Kim & Ployhart, 2014; Minbaeva & Navrbjerg, 2023). Of course, greater productivity means that human capital resources have been effectively used, because of which the company gains the ability to generate above-average returns, but their potential for usage may be constrained by external factors. However, it should be recognized that increasing productivity is a crucial way to develop slack resources. These resources can then be employed to expand business operations, look into opportunities for new product innovations and get new customers. As a result, the company is able to pursue additional revenue-generating opportunities, thanks to a more efficient workforce (Kim & Ployhart, 2014; Cascio *et al.*, 2019). Therefore, from an economic and management standpoint, empirical research appears to benefit from focusing more on the effectiveness and efficiency of the actions taken and the results achieved. However, efficiency and effectiveness are two distinct concepts. While efficiency refers to rates of resource utilization in attaining objectives (Rogers & Wright, 1998) and is understood as the ratio of output to input (Stor, 2012), effectiveness is a goal-oriented measure (Ostroff & Schmitt, 1993) that concerns the extent or degree to which desired goals are attained (Stor, 2012).

Given that there are numerous ways to develop and use slack HRM practices and slack human capital resources to improve the business's operations, the aforementioned concerns have cast doubt on how to accurately capture the actual relationships between the variables under study. The author of this article proposes an innovative solution in response to the problem. The author of this article has previously applied such an approach to research on employee performance appraisal (Stor, 2023) and talent management (Stor, 2023). To capture the actual relationships between the performance results of employees and HRM activities with the organization's performance results in the analysis process, the raw data of the variables were adjusted by the efficiency index (EI). Hence, **the adjusted values of the SEWE&JS variable** were calculated using formula (1), which expresses the ratio of the advancement level of SEWE&JS to the efficiency of employees measured by employee key performance indicators used in companies:

Variables	HQS pre-pandemic Valid N	Mean	Min	Max	Std. Dev.	Variables	HQS during the pandemic Valid N	Mean	Min	Max	Std. dev.
Results in HRM	200	3.980	3.0	5.0	0.375	Results in HRM	200	3.920	3.0	5.0	0.366
Results in finance	200	4.030	3.0	5.0	0.316	Results in finance	200	3.915	3.0	5.0	0.358
Results in innovativeness	200	3.765	2.0	5.0	0.567	Results in innovativeness	200	3.820	2.0	5.0	0.538
Results in quality	200	3.850	3.0	5.0	0.599	Results in quality	200	3.770	2.0	5.0	0.582
Employee performance in KPIs	200	2.995	2.0	4.0	0.486	Employee performance in KPIs	200	3.235	2.0	4.0	0.530
Advancement level of SEWE&JS	200	3.300	2.0	5.0	0.610	Advancement level of SEWE&JS	200	3.075	2.0	5.0	0.679
Significance level of SEWE&JS	200	3.265	2.0	4.0	0.661	Significance level of SEWE&JS	200	3.205	2.0	5.0	0.772
Variables	Foreign subsidiaries pre-pandemic Valid N	Mean	Min	Max	Std. Dev.	Variables	Foreign subsidiaries during the pandemic Valid N	Mean	Min	Max	Std. dev.
Results in HRM	200	3.975	3.0	5.0	0.308	Results in HRM	200	3.915	3.0	5.0	0.344
Results in finance	200	3.985	3.0	5.0	0.235	Results in finance	200	3.930	3.0	5.0	0.368
Results in innovativeness	200	3.810	2.0	5.0	0.562	Results in innovativeness	200	3.900	3.0	5.0	0.501
Results in quality	200	3.805	2.0	5.0	0.573	Results in quality	200	3.765	3.0	5.0	0.540
Employee performance in KPIs	200	3.045	2.0	4.0	0.392	Employee performance in KPIs	200	3.185	2.0	4.0	0.512
Advancement level of SEWE&JS	200	3.180	1.0	4.0	0.656	Advancement level of SEWE&JS	200	2.995	2.0	5.0	0.589
Significance level of SEWE&JS	200	3.115	2.0	5.0	0.659	Significance level of SEWE&JS	200	3.085	2.0	5.0	0.819

Note(s): Scales

- Company performance results in HRM, finance, innovativeness and quality → benchmarked to the companies of similar business profiles: 1 – poor, 2 – below average, 3 – similar to others, 4 – above average, 5 – very good
- Employee performance in KPIs: 1 – significantly below standards, 2 – rather below standards, 3 – exactly with the standards, 4 – rather higher than standards, 5 – significantly higher than standards
- Advancement level of SEWE&JS → benchmarked to the best market practices: 1 – significantly lower, 2 – lower, 3 – similar to others, 4 – higher, 5 – significantly higher
- Significance level of SEWE&JS to the company's performance results: 1 - not important, 2 – slightly important, 3 – important, 4 – very important, 5 – of critical significance

Source(s): Own empirical research

Table 1. Descriptive statistics for the major variables

$$EI\_SEWE\&JS = \frac{AL\_SEWE\&JS}{EKPIs} \quad (1)$$

Where:

EI_SEWE&JS – efficiency index of shaping employee work engagement and job satisfaction

AL_SEWE&JS – advancement level of shaping employee work engagement and job satisfaction

EKPI – employee key performance indicators

The adjusted values of the company performance results were calculated according to formula (2), which measures the ratio of the company performance results to the efficiency of employees measured by employee key performance indicators used in companies:

$$EISCPR\,in\,(x) = \frac{CPR\,in\,(x)}{EKPIs} \quad (2)$$

Where:

EISCPR – efficiency index of company performance results

(x) – one of the four categories of the company performance results, respectively, in human resources management (HRM), finance (F), innovativeness (I) and quality (Q).

CPR – company performance results

EKPI – employee key performance indicators

Hence, the formulas for **adjusting the value of individual categories** ($2_A - 2_D$) of the **company performance results** are as follows:

$$\left(EIHRM = \frac{HRM}{EKPIs}\right) \quad (2A)$$

Where:

EIHRM – efficiency index of company performance results in HRM

HRM – company performance results in HRM

EKPI – employee key performance indicators

$$\left(EIF = \frac{F}{EKPIs}\right) \quad (2B)$$

Where:

EIF – efficiency index of company performance results in finance

F – company performance results in finance

EKPI – employee key performance indicators

$$\left(EII = \frac{I}{EKPIs}\right) \quad (2C)$$

Where:

EII – efficiency index of company performance results in innovativeness

I – company performance results in innovativeness

EKPI – employee key performance indicators

$$\left(\boldsymbol{EIQ} = \frac{\boldsymbol{Q}}{\boldsymbol{EKPIs}}\right) \tag{2D}$$

Where:

EIQ – efficiency index of company performance results in quality

Q – company performance results in quality

EKPI – employee key performance indicators

The collected data were analyzed based on descriptive, correlational and mediation statistical methods. First, the Kolmogorov-Smirnov (with Lilliefors correction) and Shapiro-Wilk tests of normality were used. Then, Spearman's rank coefficient was applied to examine the relationships between the variables. A paired-samples *t*-test was utilized to determine the significance of differences between means of variables in the pre-pandemic and during-pandemic periods. Additionally, Fisher's *z*-transformation test was employed to compare the strength of correlations across these periods. As for the potential concerns of multicollinearity, the variance inflation factor (VIF) was calculated for each variable across different contexts. In this study, all VIF values were well below the standard threshold, that is <5 (Ringle, Sarstedt, Sinkovics, & Sinkovics, 2023), suggesting that multicollinearity is not a significant concern in the models. These analyses were conducted using the TIBCO Statistica v. 14.0.0.15 software.

In the last stage of the analysis, the author used partial least squares structural equation modeling (PLS-SEM) in R environment with lavaan package v. 0.6–12 software (Rosseel, 2012; Savalei & Rosseel, 2022) to verify the research hypotheses and assess mediating effects. The choice of PLS-SEM is mainly due to the fact that it works well for distributions of non-normal variables and is the preferred method when the research goal is to develop a theory and explain the variance (Hair, Hult, Ringle, & Sarstedt, 2022), which is exactly what happens in the presented studies. In addition, PLS-SEM provides the opportunity to analyze the differences between the coefficient paths of different sets of variables (Picón-Berjoyo, Ruiz-Moreno, & Castro, 2016) and has become an almost universally used method for examining the effect of HRM practices on organizational performance (Ringle, Sarstedt, Mitchell, & Gudergan, 2020). Finally, it is worth recalling that the correlation and path analysis were performed on variable values that were adjusted by IE.

4. The empirical research findings

4.1 The descriptive and correlational statistics

As shown in Table 1, both in the MNCs' HQs and their local subsidiaries, the performance results in the four studied categories were comparable to those obtained by enterprises with similar business profiles, both before and during the pandemic. However, scores in HRM, finance and quality were slightly higher before the pandemic. In comparison, innovation scores were better during the pandemic.

As for SEWE&JS, its significance to performance results was lower during the pandemic for both HQs ($\bar{x} = 3.21$) and local subsidiaries ($\bar{x} = 3.01$) compared to before the pandemic ($\bar{x} = 3.27$; $\bar{x} = 3.12$, respectively). The advancement level of SEWE&JS was also slightly lower during the pandemic for both HQs (($\bar{x} = 3.08$) and local subsidiaries ($\bar{x} = 3.00$) compared to

before the pandemic ($\bar{x} = 3.03$; $\bar{x} = 3.18$, respectively). Surprisingly, employee performance was slightly better during the pandemic for both HQs ($\bar{x} = 3.24$) and local subsidiaries ($\bar{x} = 3.19$) compared to before the pandemic ($\bar{x} = 3.00$; $\bar{x} = 3.05$, respectively).

In turn, the correlation analysis in Table 2 reveals positive correlations between all variables in both types of organizations and during both time periods. The advancement level of SEWE&JS at HQs before the pandemic showed stronger correlations with finance ($r = 0.63$), innovativeness ($r = 0.55$) and HRM ($r = 0.58$) compared to during the pandemic ($r = 0.53$; $r = 0.44$; $r = 0.47$, respectively), while its correlation with quality remained the same ($r = 0.55$). In foreign subsidiaries, during the pandemic, all SEWE&JS correlations with company performance in HRM ($r = 0.38$), finance ($r = 0.40$), quality ($r = 0.42$) and innovation ($r = 0.39$) were stronger compared to before the pandemic ($r = 0.37$; $r = 0.39$; $r = 0.36$; $r = 0.27$ respectively).

4.2 Mediation statistics based on PLS-SEM

The path analysis (see Tables 3–5) confirms that SEWE&JS has a direct and positive effect on company performance results in HRM, finance, innovativeness and quality. This leads to the confirmation of the auxiliary hypotheses from H1a to H1d; however, hypothesis H1c can be accepted to some extent because not all effects are statistically significant.

Furthermore, there are variations in these effects between HQs and local subsidiaries, as well as between the pre-pandemic and pandemic periods. In HQs, the effect of SEWE&JS on company performance is stronger before the pandemic, while in local subsidiaries, it is

Variables	HQS pre-pandemic Advancement level of SEWE&JS $\left(\frac{AL\_SEWE\&JS}{EKPIs}\right)$	Variables	HQS during the pandemic Advancement level of SEWE&JS $\left(\frac{AL\_SEWE\&JS}{EKPIs}\right)$
1. Results in finance $\left(\frac{F}{EKPIs}\right)$	0.63***	1. Results in finance $\left(\frac{F}{EKPIs}\right)$	0.53***
2. Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.55***	2. Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.55***
3. Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.55***	3. Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.47***
4. Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.58***	4. Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.52***
Variables	Foreign subsidiaries pre-pandemic Advancement level of SEWE&JS $\left(\frac{AL\_SEWE\&JS}{EKPIs}\right)$	Variables	Foreign subsidiaries during the pandemic Advancement level of SEWE&JS $\left(\frac{AL\_SEWE\&JS}{EKPIs}\right)$
1. Results in finance $\left(\frac{F}{EKPIs}\right)$	0.39***	1. Results in finance $\left(\frac{F}{EKPIs}\right)$	0.40***
2. Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.36***	2. Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.42***
3. Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.27***	3. Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.39***
4. Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.37***	4. Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.38***

Note(s): *Correlations significant at $p < 0.05$; **correlations significant at $p < 0.01$; ***correlations significant at $p < 0.001$

Source(s): Own empirical research

Table 2. Correlation matrix for the major variables modified by the efficiency ratio (employee KPIs)

HQS pre-pandemic Variables in paths	β	Z	p	95%*CI*	HQS during the pandemic Variables in paths	β	Z	p	95%*CI*
SEWE&JS → finance	0.15	3.00	<0.001	[0.05; 0.25]	SEWE&JS → finance	0.09	2.55	<0.05	[0.02; 0.15]
SEWE&JS → HRM (α)	0.58	9.08	<0.001	[0.46; 0.71]	SEWE&JS → HRM (α)	0.52	8.19	<0.001	[0.40; 0.64]
HRM → finance	0.82	14.18	<0.001	[0.70; 0.93]	HRM → finance	0.85	16.69	<0.001	[0.75; 0.95]
Mediation effect of HRM (αβ)	0.48	6.71	<0.001	[0.34; 0.61]	Mediation effect of HRM (αβ)	0.44	7.37	<0.001	[0.32; 0.56]
Foreign subsidiaries pre-pandemic Variables in paths	β	Z	p	95%*CI*	Foreign subsidiaries during the pandemic Variables in paths	β	Z	p	95%*CI*
SEWE&JS → finance	0.06	1.79	p > 0.05	–	SEWE&JS → finance	0.09	2.17	<0.05	[0.01; 0.16]
SEWE&JS → HRM (α)	0.37	5.39	<0.001	[0.24; 0.50]	SEWE&JS → HRM (α)	0.38	5.21	<0.001	[0.24; 0.52]
HRM → finance	0.88	14.00	<0.001	[0.76; 1.00]	HRM → finance	0.84	14.82	<0.001	[0.73; 0.95]
Mediation effect of HRM (αβ)	0.32	4.69	<0.001	[0.19; 0.46]	Mediation effect of HRM (αβ)	0.32	4.91	<0.001	[0.19; 0.45]

Note(s): All variables modified by the efficiency ratio (employee KPIs)
Source(s): Own empirical research

Table 3. Path analysis summary in PLS-SEM for SEWE&JS and company performance results in finance

HQS pre-pandemic Variables in paths	β	Z	p	95%*CI*	HQS during the pandemic Variables in paths	β	Z	p	95%*CI*
SEWE&JS → innovativeness	0.17	2.41	<0.05	[0.03; 0.30]	SEWE&JS → innovativeness	0.08	1.57	>0.05	–
SEWE&JS → HRM (α)	0.58	9.08	<0.001	[0.46; 0.71]	SEWE&JS → HRM (α)	0.52	8.19	<0.001	[0.40; 0.64]
HRM → innovativeness	0.67	9.76	<0.001	[0.53; 0.80]	HRM → innovativeness	0.76	12.80	<0.001	[0.64; 0.87]
Mediation effect of HRM (αβ)	0.39	6.19	<0.001	[0.27; 0.51]	Mediation effect of HRM (αβ)	0.39	6.71	<0.001	[0.28; 0.51]
Foreign subsidiaries pre-pandemic Variables in paths	β	Z	p	95%*CI*	Foreign subsidiaries during the pandemic Variables in paths	β	Z	p	95%*CI*
SEWE&JS → innovativeness	0.02	0.39	>0.05	–	SEWE&JS → innovativeness	0.08	1.81	>0.05	–
SEWE&JS → HRM (α)	0.37	5.39	<0.001	[0.24; 0.50]	SEWE&JS → HRM (α)	0.38	5.21	<0.001	[0.24; 0.52]
HRM → innovativeness	0.67	8.21	<0.001	[0.51; 0.82]	HRM → innovativeness	0.81	13.64	<0.001	[0.69; 0.92]
Mediation effect of HRM (αβ)	0.25	4.63	<0.001	[0.14; 0.35]	Mediation effect of HRM (αβ)	0.31	4.86	<0.001	[0.18; 0.43]

Note(s): All variables modified by the efficiency ratio (employee KPIs)
Source(s): Own empirical research

Table 4. Path analysis summary in PLS-SEM for SEWE&JS and company performance results in innovativeness

HQS pre pandemic Variables in paths	β	Z	p	95%*CI*	HQS during the pandemic Variables in paths	β	Z	p	95%*CI*
SEWE&JS → quality	0.23	2.79	<0.01	[0.07; 0.38]	SEWE&JS → quality	0.29	4.30	<0.001	[0.16; 0.43]
SEWE&JS → HRM (α)	0.58	9.08	<0.001	[0.46; 0.71]	SEWE&JS → HRM (α)	0.52	8.19	<0.001	[0.40; 0.64]
HRM → quality	0.56	5.85	<0.001	[0.37; 0.74]	HRM → quality	0.50	6.42	<0.001	[0.34; 0.65]
Mediation effect of HRM (αβ)	0.32	4.89	p < 0.001	[0.19; 0.45]	Mediation effect of HRM (αβ)	0.26	5.19	<0.001	[0.16; 0.35]
Foreign subsidiaries pre-pandemic Variables in paths	β	Z	p	95%*CI*	Foreign subsidiaries during the pandemic Variables in paths	β	Z	p	95%*CI*
SEWE&JS → quality	0.16	2.53	<0.05	[0.04; 0.28]	SEWE&JS → quality	0.21	3.27	<0.01	[0.08; 0.33]
SEWE&JS → HRM (α)	0.37	5.39	<0.001	[0.24; 0.50]	SEWE&JS → HRM (α)	0.38	5.21	<0.001	[0.24; 0.52]
HRM → Quality	0.55	5.96	<0.001	[0.37; 0.73]	HRM → quality	0.56	7.16	<0.001	[0.40; 0.71]
Mediation effect of HRM (αβ)	0.20	4.09	<0.001	[0.11; 0.30]	Mediation effect of HRM (αβ)	0.21	4.32	<0.001	[0.12; 0.31]

Note(s): All variables modified by the efficiency ratio (employee KPIs)
Source(s): Own empirical research

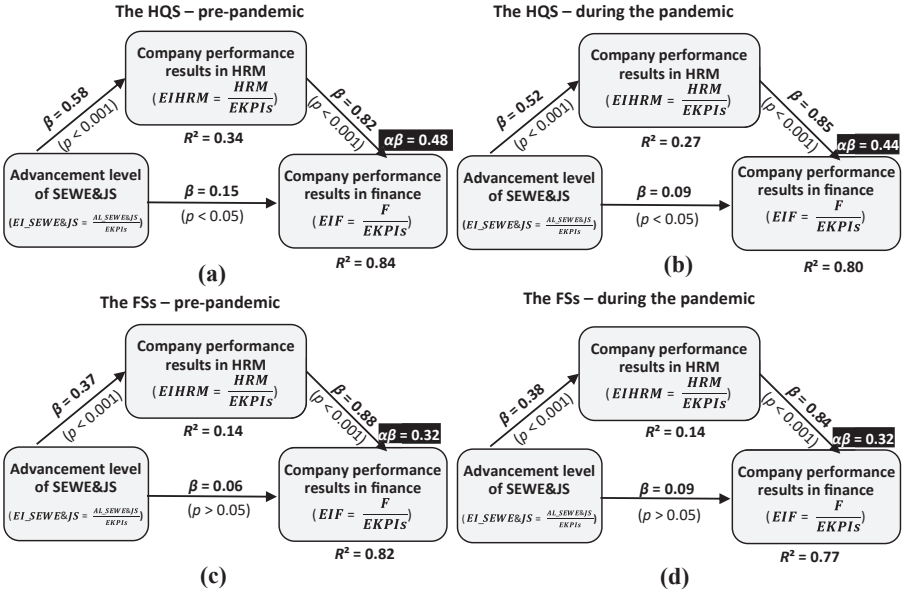
Table 5.
Path analysis summary in PLS-SEM for SEWE&JS and company performance results in quality

slightly stronger during the pandemic. Similar patterns are observed for finance and innovativeness, with stronger effects before the pandemic in HQs and slightly stronger effects in local subsidiaries during the pandemic. The effect of SEWE&JS on quality is significant and stronger during the pandemic in both HQs and local subsidiaries.

Overall, the main hypothesis H1 is confirmed, indicating that SEWE&JS positively influences company performance results in various areas. However, not all effects are statistically significant, highlighting some variations in the impact of SEWE&JS across different contexts and time periods.

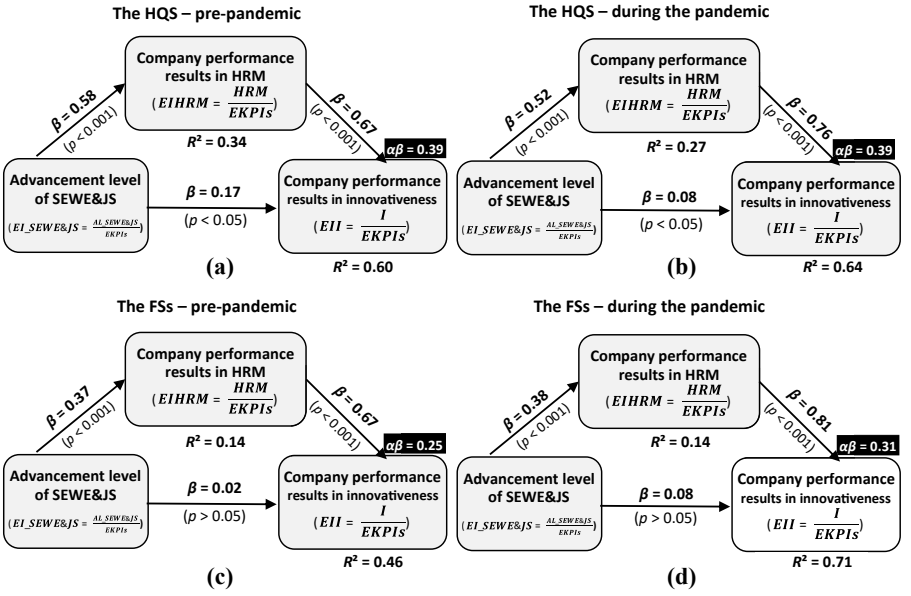
Mediation analyses reveal that company performance results in HRM positively mediate the relationships between SEWE&JS and company performance results in finance. In HQs, this mediation effect is significant in both the pre-pandemic ($\beta = 0.82$; $p < 0.001$) and pandemic ($\beta = 0.85$; $p < 0.001$) periods. The indirect mediation effect is slightly stronger before the pandemic ($\alpha\beta = 0.48$; $p < 0.001$) compared to the pandemic period ($\alpha\beta = 0.44$; $p < 0.001$). In foreign subsidiaries, the mediation effect remains consistent across both periods ($\alpha\beta = 0.32$; $p < 0.001$). Therefore, auxiliary hypothesis H2a is confirmed, while H3a is rejected. Figure 1 provides a graphical representation of these findings.

Company performance results in HRM positively mediate the relationships between SEWE&JS and company performance results in innovativeness. In HQs, this mediation effect is significant in both the pre-pandemic ($\beta = 0.67$; $p < 0.001$) and pandemic ($\beta = 0.76$; $p < 0.001$) periods, with a consistent indirect mediation effect ($\alpha\beta = 0.39$; $p < 0.001$) across both periods. In foreign subsidiaries, the mediation effect is significant in both the pre-pandemic ($\beta = 0.67$; $p < 0.001$) and pandemic ($\beta = 0.81$; $p < 0.001$) periods, but the indirect mediation effect is significantly stronger during the pandemic ($\alpha\beta = 0.31$; $p < 0.001$) compared to pre-pandemic ($\alpha\beta = 0.25$; $p < 0.001$). Therefore, auxiliary hypothesis H2b is confirmed, while H3b is partially supported. Figure 2 illustrates these relationships.



Source(s): Own empirical research

Figure 1.
The HRM mediation model of the relationships between SEWE&JS and company performance results in finance



Source(s): Own empirical research

Figure 2.
The HRM mediation model of the relationships between SEWE&JS and company performance results in innovativeness

HRM outcomes positively mediate the relationships between SEWE&JS and company performance results in quality. In HQs, this mediation effect is significant in both the pre-pandemic ($\beta = 0.56$; $p < 0.001$) and pandemic ($\beta = 0.50$; $p < 0.001$) periods, with a stronger indirect mediation effect in the pre-pandemic ($\alpha\beta = 0.32$; $p < 0.001$) compared to the pandemic ($\alpha\beta = 0.26$; $p < 0.001$) time. In foreign subsidiaries, the mediation effect is significant in both the pre-pandemic ($\beta = 0.55$; $p < 0.001$) and pandemic ($\beta = 0.56$; $p < 0.001$) periods, with a slightly stronger indirect mediation effect during the pandemic ($\alpha\beta = 0.21$; $p < 0.001$) than during pre-pandemic ($\alpha\beta = 0.20$; $p < 0.001$). Auxiliary hypothesis H2c is confirmed, while H3c is partially supported, specifically in relation to foreign subsidiaries. Figure 3 visually presents these phenomena.

Summarizing the results of mediation analyses, it can be stated that they allow for a positive verification of auxiliary hypotheses H2a, H2b and H2c, which ultimately entitles us to recognize the main hypothesis H2 as true. This is based on the findings that company performance results in HRM positively mediate the relationships between SEWE&JS and the other three categories of company performance, regardless of the type of the company (HQs or foreign subsidiaries) and the time period under consideration. As for main hypothesis H3, it can be considered only partially confirmed. This is due to the fact that none of the auxiliary hypotheses has been confirmed for both the HQs and the foreign subsidiaries. Hypothesis H3a was positively verified only for the HQs, and hypotheses H3b and H3c are true only for the foreign subsidiaries.

The explanatory capability of all the models is juxtaposed in Table 6. In general, it can be said the amount of variance explained in the company performance results ranges from weak to strong (Ringle *et al.*, 2020; Hair *et al.*, 2022).

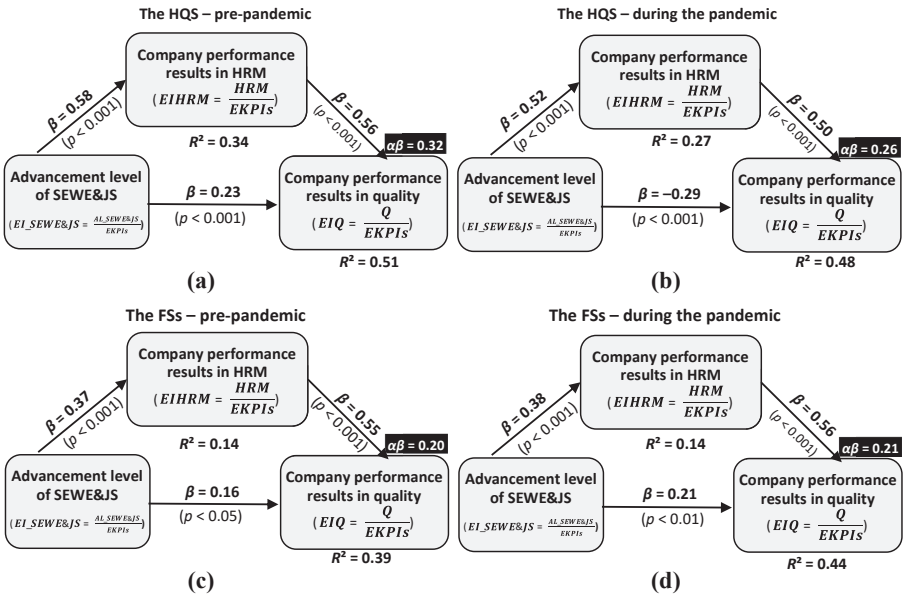


Figure 3.
The HRM mediation model of the relationships between SEWE&JS and company performance results in quality

Source(s): Own empirical research

Table 6. The explanatory capabilities of the HRM mediation models of the relationships between SEWE&JS and company performance results

Units of MNCs	Variables in models	R^2 The pre-pandemic time	The pandemic time
HQs	Results in HRM	0.34	0.27
	Results in finance	0.84	0.80
	Results in innovativeness	0.60	0.64
	Results in quality	0.51	0.48
Foreign subsidiaries	Results in HRM	0.14	0.14
	Results in finance	0.82	0.77
	Results in innovativeness	0.46	0.71
	Results in quality	0.39	0.44

Note(s): Interpretation
R^2 – the amount of variance explained in the construct (very weak ≥0.1, weak ≥0.19; moderate ≥0.33, substantial ≥0.67, strong ≥0.75)
Source(s): Own empirical research

5. Research summary and final conclusions

The main goal of the article, identified with **the main research problem,** was to determine the mediating role of HRM outcomes in the relationships between shaping employee work engagement and job satisfaction (SEWE&JS) and company performance results, and to establish whether there are any identifiable regularities in this scope in the pre-pandemic and pandemic periods of COVID-19 in the HQs and foreign subsidiaries of MNCs. The research findings presented in the previous sections of the article justify the conclusion that this goal has been successfully achieved.

Summarizing the research findings, it can be concluded that both similar and different regularities have been identified in the HQs of MNCs and their local subsidiaries. In terms of similarities, during the pandemic, both the HQs and local subsidiaries exhibited slightly higher company performance in innovativeness, accompanied by improved employee performance scores compared to pre-pandemic levels. This can be attributed to specific HRM solutions that positively impact employee performance, as well as the special influence of managerial staff on subordinate employees. Other studies suggest that managers adapted their methods to the new COVID-19 conditions, leading to employees' performance exceeding expectations (Minbaeva & Navrbjerg, 2023). These findings align with research, indicating that highly engaged employees consistently strive to contribute beyond expectations (Harter *et al.*, 2013). Notably, innovation required special engagement from employees, who sought and implemented creative product and service solutions to ensure organizational functioning during challenging times. These studies support the notion that focusing on innovation based on employee engagement is an effective remedy in turbulent environments (Aftab *et al.*, 2022).

As for the different regularities, they are visible both in the correlations between the variables and in their effects. Generally speaking, the relationship between SEWE&JS and the organization's performance results in the HQs being slightly stronger before the pandemic, and in the foreign subsidiaries during the pandemic. In terms of influence, in the foreign subsidiaries, the direct impact of SEWE&JS on results in finance, innovativeness and quality was greater during the pandemic than before it. In the case of the HQs, it looked a bit different. Here, SEWE&JS had a slightly greater impact on the results in finance and innovation before the pandemic, and during the pandemic, it had a slightly greater impact on quality results. Furthermore, HRM outcomes turned out to be a stronger mediator between SEWE&JS and company performance results in finance and quality in the HQs during the pandemic, whereas in the local subsidiaries, they were a stronger mediator of the relationships between the results in innovativeness and quality during the pandemic.

The significance of SEWE&JS for company performance results and its advancement level were slightly greater in HQs than in local subsidiaries in both study periods. However, KPI-based employee performance was better in local subsidiaries before the pandemic, and in HQs during the pandemic. These findings support previous studies, emphasizing the importance of considering specific contexts within MNC units when analyzing the effectiveness of SEWE&JS (Shuck *et al.*, 2021). Furthermore, it highlights the need to examine HQs and foreign subsidiaries separately (Edwards, Sánchez-Mangas, Jalette, Lavelle, & Minbaeva, 2016), as well as the distinct contextual conditions during a crisis (such as the pandemic) compared to non-crisis periods (Kim & Ployhart, 2014; Donovan, 2022). Taking these factors into account improves our understanding of SEWE&JS-related phenomena (Shuck *et al.*, 2021).

The research findings contribute to management science by confirming the positive impact of SEWE&JS on company performance results (Kessler *et al.*, 2020). They also emphasize the positive effects of HRM on performance and the need for a holistic approach to HRM's impact (Lee *et al.*, 2020; Boon *et al.*, 2019). HRM outcomes consistently mediated the relationship between SEWE&JS and performance, with indirect impact being greater but always statistically significant. This highlights the importance of configuring SEWE&JS as an adaptable system (Garengo *et al.*, 2022). However, different regularities were observed in each context, indicating the absence of a universal practice (Shuck *et al.*, 2021). The research also brings new value by defining the mediating role of HRM outcomes and identifying regularities in finance, innovativeness and quality results. The analysis employed an innovative approach by utilizing employee KPIs as efficiency indicators. Additionally, the study's coverage of MNCs operating globally from Central Europe adds to the limited literature on this topic.

The empirical research has certain limitations. Such limitations include the structure of the research sample, which does not fully correspond with the general population, and the lack of input from informants in local subsidiaries (explained in the research methodical section). Another limitation is the use of qualitative benchmarking, which relies on subjective evaluations rather than on objective measures of company performance and SEWE&JS advancement. The reliance on respondent declarations for measuring variables introduces a potential bias into the research findings. Future research might seek to corroborate these findings with more objective measures, such as utilizing performance data or third-party assessments of company performance and SEWE&JS advancement, to validate the self-reported data and ensure a more robust analysis. This approach would mitigate the risk of skewed results due to potentially optimistic or pessimistic respondent perceptions and provide a more accurate reflection of actual organizational practices and outcomes. Moreover, the respondent demographic, primarily consisting of HR representatives, introduces another layer of complexity and potential bias into the findings. Their professional perspective and potential inclination toward certain HRM outcomes and strategies might shape the findings in a specific direction, which, while providing invaluable insights into HRM strategies and outcomes, might not fully encapsulate the broader organizational impact and perceptions of SEWE&JS. Thus, future research endeavors could benefit from incorporating a more diverse range of perspectives, such as those of line managers or general employees, to offer a more holistic view of the impact of SEWE&JS on company performance. Engaging in this multi-perspective approach would not only enhance the comprehensiveness of the findings but also provide a richer, more nuanced understanding of how SEWE&JS permeates through different organizational levels and roles, and how its impact may be perceived and manifested differently across various strata within the MNCs. Additionally, while the HQs were located in a single Central European country with similar contexts, the foreign subsidiaries in various countries were not individually considered.

Finally, from the pragmatic and managerial standpoint, it can be said that the conducted research also has a certain practical value. Its findings prove that properly constructed activities composing SEWE&JS, accurately linked to other HRM subfunctions and suitably adjusted to the organizational context, particularly in the time of crisis (*cf.* Agarwal *et al.*, 2022),

can contribute to stimulating employee engagement (*cf.* Bailey, 2016), which supports the organization in difficult times of crisis. This was particularly visible in the area of innovation in the presented research.

References

Aftab, J., Sarwar, H., Abid, N., Ishaq, M. I., Kiran, A., & Aftab, F. (2022). The nexus of management innovation, performance management, and organizational performance in the Pakistani construction industry. *Central European Management Journal*, *30*(4), 2–26. doi: 10.7206/cemj.2658-0845.88.

Agarwal, T., Arya, S., & Bhasin, K. (2022). Evaluating the impact of coronavirus disease-2019 pandemic on employer branding, employee engagement and employee performance: A moderation study of Indian information technology firms. *Global Business Review*, 097215092211190. doi: 10.1177/09721509221119014.

Bailey, C. (2016). Employee engagement: Do practitioners care what academics have to say – and should they?. *Human Resource Management Review*, *32*(1), 100589. doi: 10.1016/j.hrmr.2016.12.014.

Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: Progress and prospects. *Academy of Management Journal*, *39*(4), 779–801. doi: 10.5465/256712.

Boccoli, G., Gastaldi, L., & Corso, M. (2023). The evolution of employee engagement: Towards a social and contextual construct for balancing individual performance and wellbeing dynamically. *International Journal of Management Reviews*, *25*(1), 75–98. doi: 10.1111/ijmr.12304.

Boon, C., Den Hartog, D. N., & Lepak, D. P. (2019). A systematic review of human resource management systems and their measurement. *Journal of Management*, *45*(6), 2498–2537. doi: 10.1177/0149206318818718.

Cascio, W. F., Boudreau, J. W., & Fink, A. A. (2019). *Investing in people: Financial impact of human resource initiatives*. Alexandria: Society for Human Resource Management.

Dillard, N., & Osam, K. (2021). Deconstructing the meaning of engagement: An intersectional qualitative study. *Human Resource Development International*, *24*(5), 511–532. doi: 10.1080/13678868.2021.1959777.

Donovan, C. (2022). Examining employee engagement amid a crisis: Reactions to mandatory stay-at-home orders during the COVID-19 pandemic. *Psychology of Leaders and Leadership*, *25*(2), 114–143. doi: 10.1037/mgr0000127.

Edwards, T., Sánchez-Mangas, R., Jalette, P., Lavelle, J., & Minbaeva, D. (2016). Global standardization or national differentiation of HRM practices in multinational companies? A comparison of multinationals in five countries. *Journal of International Business Studies*, *47*(8), 997–1021. doi: 10.1057/s41267-016-0003-6, Available from: http://www.jstor.org/stable/26169981

Farndale, E. (2017). Two-country study of engagement, supervisors and performance appraisal. *Journal of Asia Business Studies*, *11*(3), 342–362. doi: 10.1108/JABS-07-2015-0105.

Garengo, P., Sardi, A., & Nudurupati, S. S. (2022). Human resource management (HRM) in the performance measurement and management (PMM) domain: A bibliometric review. *International Journal of Productivity and Performance Management*, *71*(7), 3056–3077. doi: 10.1108/IJPPM-04-2020-0177.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial Least Squares structural equation modeling (PLS-SEM)* (3rd Edition). Thousand Oaks: Sage.

Harter, J. K., Schmidt, F. L., Agrawal, S., & Plowman, S. K. (2013). *2012 Q12 meta-analysis: The relationship between engagement at work and organizational outcomes*. Washington, DC: The Gallup Organization.

Juchnowicz, M. (2014). Proces budowania zaangażowania pracowników. In M. Juchnowicz (Ed.), *Zarządzanie kapitałem ludzkim. Procesy – narzędzia – aplikacje*. Warszawa: Polskie Wydawnictwo Ekonomiczne.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*(4), 692–724. doi: 10.5465/256287.

Kessler, S. R., Lucianetti, L., Pindek, S., Zhu, Z., & Spector, P. E. (2020). Job satisfaction and firm performance: Can employees' job satisfaction change the trajectory of a firm's performance?. *Journal of Applied Social Psychology*, *50*(10), 563–572. doi: 10.1111/jasp.12695.

Kim, J., & LePine, J. (2019). *Employee engagement: The past, the present, and the future*. NY: SAGE, doi: 10.4135/9781529714852.

Kim, Y., & Ployhart, R. E. (2014). The effects of staffing and training on firm productivity and profit growth before, during, and after the Great Recession. *The Journal of Applied Psychology*, *99*(3), 361–389. doi: 10.1037/a0035408.

Knight, C., Patterson, M., & Dawson, J. (2017). Building work engagement: A systematic review and meta-analysis investigating the effectiveness of work engagement interventions. *Journal of Organizational Behavior*, *38*(6), 792–812. doi: 10.1002/job.2167.

Lee, J. Y., Rocco, T. S., & Shuck, B. (2020). What is a resource: Toward a taxonomy of resources for employee engagement. *Human Resource Development Review*, *19*(1), 5–38. doi: 10.1177/1534484319853100.

Locke, E. A. (1976). *The nature and causes of job satisfaction*. Chicago: Rand McNally.

Mańkowski, C., Szmeter-Jarosz, A., & Jezierski, A. (2022). Managing supply chains during the covid-19 pandemic. *Central European Management Journal*, *30*(4), 90–119. doi: 10.7206/cemj.2658-0845.91.

Mazzetti, G., & Schaufeli, W. B. (2022). The impact of engaging leadership on employee engagement and team effectiveness: A longitudinal, multi-level study on the mediating role of personal- and team resources. *PLoS One*, *17*(6), e0269433. doi: 10.1371/journal.pone.0269433.

Meyer, K. E., Mudambi, R., & Narula, R. (2011). Multinational enterprises and local contexts: The opportunities and challenges of multiple embeddedness. *Journal of Management Studies*, *48*(2), 235–252. doi: 10.1111/j.1467-6486.2010.00968.x.

Minbaeva, D. B., & Navrbjerg, S. E. (2023). Strategic human resource management in the context of environmental crises: A COVID-19 test. *Human Resource Management*, *62*(6), 1–22. doi: 10.1002/hrm.22162.

Motyka, B. (2018). Employee engagement and performance: A systematic literature review. *International Journal of Management and Economics*, *54*(3), 227–244. doi: 10.2478/ijme-2018-0018.

Ostroff, C., & Schmitt, N. (1993). Configurations of organizational effectiveness and efficiency. *Academy of Management Journal*, *36*(6), 1345–1361. doi: 10.5465/256814.

Pass, S., & Ridgway, M. (2022). An informed discussion on the impact of COVID-19 and 'enforced' remote working on employee engagement. *Human Resource Development International*, *25*(2), 254–270. doi: 10.1080/13678868.2022.2048605.

Pattnaik, S. C., & Sahoo, R. (2020). Human resource practices as predictors of organizational performance: A structural equation modeling approach. *Global Business Review*, *21*(4), 1087–1112. doi: 10.1177/0972150918779286.

Picón-Berjoyo, A., Ruiz-Moreno, C., & Castro, I. (2016). A mediating and multigroup analysis of customer loyalty. *European Management Journal*, *34*(6), 701–713. doi: 10.1016/j.emj.2016.07.006.

Plaskoff, J. (2017). Employee experience: The new human resource management approach. *Strategic HR Review*, *16*(3), 136–141. doi: 10.1108/SHR-12-2016-0108.

Reinwald, M., Zimmermann, S., & Kunze, F. (2021). Working in the eye of the pandemic: Local COVID-19 infections and daily employee engagement. *Frontiers in Psychology*, *12*, 654126. doi: 10.3389/fpsyg.2021.654126.

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, *35*(3), 718–804. doi: 10.1177/0149206308330560.

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, *31*(12), 1617–1643. doi: 10.1080/09585192.2017.1416655.

Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, *48*, 109074. doi: 10.1016/j.dib.2023.109074.

Robertson-Smith, G., & Markwick, C. (2009). *Employee engagement: A review of current thinking*. Brighton: Institute for Employment Studies.

Rogers, E.W., & Wright, P.M. (1998). Measuring organizational performance in strategic human resource management: problems, prospects and performance information markets. *Human Resource Management Review*, *8*(3), 311–331. doi:10.1016/S1053-4822(98)90007-9.

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, *48*(2), 1–36. doi: 10.18637/jss.v048.i02.

Saks, A. M., Gruman, J. A., & Zhang, Q. (2022). Organization engagement: A review and comparison to job engagement. *Journal of Organizational Effectiveness: People and Performance*, *9*(1), 20–49. doi: 10.1108/JOEPP-12-2020-0253.

Savalei, V., & Rosseel, Y. (2022). Computational options for standard errors and test statistics with incomplete normal and nonnormal data in SEM. *Structural Equation Modeling: A Multidisciplinary Journal*, *29*(2), 163–181. doi: 10.1080/10705511.2021.1877548.

Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*(1), 71–92. doi: 10.1023/a:1015630930326.

Schlägel, C., & Sarstedt, M. (2016). Assessing the measurement invariance of the four-dimensional cultural intelligence scale across countries: A composite model approach. *European Management Journal*, *34*(6), 633–649. doi: 10.1016/j.emj.2016.06.002.

Shuck, B., Osam, K., Zigarmi, D., & Nimon, K. (2017). Definitional and conceptual muddling: Identifying the positionality of employee engagement and defining the construct. *Human Resource Development Review*, *16*(3), 263–293. doi: 10.1177/1534484317720622.

Shuck, B., Kim, W., & Fletcher, L. (2021). Engagement at 30: A retrospective and look forward through an international cross-cultural context. *Human Resource Development International*, *24*(5), 465–467. doi: 10.1080/13678868.2021.1987657.

Sivapragasam, P., & Raya, R. P. (2018). HRM and employee engagement link: Mediating role of employee well-being. *Global Business Review*, *19*(1), 147–161. doi: 10.1177/0972150917713369.

Statistics Poland (2022), *Activity of Enterprises Having Foreign Entities in 2020*, Warsaw: Statistics Poland.

Stor, M. (2011). Niedowartościowane obszary ZZL w korporacjach międzynarodowych w Polsce na tle innych organizacji w czasie ogólnoświatowego kryzysu gospodarczego – wyniki badań empirycznych. In Z. Janowska (Ed.), *Dysfunkcje i patologie w sferze zarządzania zasobami ludzkimi (T. 4)* (pp. 187–215). Łodź: Wydawnictwo Uniwersytetu Łódzkiego.

Stor, M. (2012). Continental frameworks for HRM effectiveness and efficiency in MNCs: European, American, asian, and african perspectives. *Human Resources Management*, *6*(89), 9–35.

Stor, M. (2021). The configurations of HRM bundles in MNCs by their contributions to subsidiaries' performance and cultural dimensions. *International Journal of Cross Cultural Management*, *21*(1), 123–166. doi: 10.1177/1470595821997488.

Stor, M. (2022). Preface. In M. Stor (Ed.), *Human capital management in the wandering context of events - challenges for the managerial staff* (pp. 8–10). Wrocław: Publishing House of Wroclaw University of Economics and Business.

Stor, M. (2023). *Human resources management in multinational companies: A central European perspective*. New York & London: Routledge, Taylor & Francis Group.

Stor, M. (2023). The effects of employee performance appraisal on the company performance results: The mediating role of HRM outcomes with an innovative application of the efficiency index. *European Management Studies*, *21*(1), 68–99. doi: 10.7172/1644-9584.99.4.

Stor, M. (2023). The impact of organizational talent management on company performance results: The mediating role of HRM outcomes in MNCs headquartered in Central Europe. *Organization and Management*, *1*(192), 11–40.

Stor, M., & Haromszeki, Ł. (2020). Kształtowanie zaangażowania pracowników i ich satysfakcji z pracy w jednostkach zagranicznych polskich przedsiębiorstw międzynarodowych – wyniki badań empirycznych. In H. Czubasiewicz (Ed.), *Sukces organizacji w warunkach gospodarki cyfrowej: Zarządzanie zasobami ludzkimi*. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.

Sun, L., & Bunchapattanasakda, C. (2019). Employee engagement: A literature review. *International Journal of Human Resource Studies*, *9*(1), 63–80. doi: 10.5296/ijhrs.v9i1.14167.

Taipale, S., Selander, K., Anttila, T., & Nätti, J. (2011). Work engagement in eight European countries. The role of job demands, autonomy, and social support. *International Journal of Sociology and Social Policy*, *31*(7/8), 486–504. doi: 10.1108/01443331111149905.

Wood, S. (2021). Developments in the HRM–Performance Research stream: The mediation studies. *German Journal of Human Resource Management*, *35*(1), 83–113. doi: 10.1177/2397002220986943.

Zeidan, S., & Itani, N. (2020). Cultivating employee engagement in organizations: Development of a conceptual framework. *Central European Management Journal*, *28*(1), 99–118. doi: 10.7206/cemj.2658-0845.18.

Corresponding author
Marzena Stor can be contacted at: marzena.stor@ue.wroc.pl