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THE IMPACT OF ORGANIZATIONAL TALENT MANAGEMENT ON COMPANY PERFORMANCE RESULTS: THE MEDIATING ROLE OF HRM OUTCOMES IN MNCs HEADQUARTERED IN CENTRAL EUROPE

Introduction

Organizational talent management (OTM) has been the subject of research interest for almost three decades. During this time, it has become a topic of many substantial debates in the scientific literature and a significant element of organizational practice. Its increasing importance seems to be based on the assumption that excellent OTM is a crucial source of both company's success and its competitive advantage [McDonnell et al., 2017]. Such an assumption is the result of various studies that have demonstrated the relationships between OTM and the outcomes achieved by organizations [Collings et al., 2019; Kaliannan et al., 2022].

However, a growing body of literature challenges the distinctiveness of OTM from earlier conceptualizations of human resources management (HRM). Some argue that OTM is essentially the same as HRM, amounting to little more than rebranding. This perspective views OTM as engaging in similar activities as HRM, without introducing novel ideas for HRM scholars [Sparrow, 2019]. This line of argument relies on E. Abrahamson's thesis [1996] of fads and fashions in management to explain the popularity of the concept being discussed. From another perspective,

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OTM is perceived as a differentiated activity with an associated differentiated HRM architecture [Collings, Mellahi, 2009], as a component of HRM [King, Vaiman, 2019] or as one of HRM subfunctions [Vardi, Collings, 2023; Haromszeki, 2023]. Therefore, it is often defined (this definition is also adopted in this article) as a set of organizational processes designed to attract, develop, mobilize and retain individuals with high levels of human capital and ensure their deployment in roles which are pivotal to organization success [Boudreau, Ramstad, 2005; Tarique, 2021]. Within this approach, however, little attention is given to the connections between OTM and HRM in influencing company performance.

The unprecedented challenges posed by the COVID-19 pandemic have highlighted the crucial role of OTM in navigating the complexities of the modern business environment. Not only did the pandemic disrupt traditional business operations, but it also called for a rethinking of talent management strategies to ensure organizational resilience and adaptability. A review of empirical literature suggests that while there has been considerable research on OTM and its association with organizational performance across various contexts, such as regions [*c.f.* Kabwe, Okorie, 2019; Battisti et al., 2023], countries and organizations [Vaiman et al., 2017; Pocztowski et al., 2020], there is a limited number of studies specifically addressing MNCs in Central Europe. Moreover, few delve into the evolving scenarios transitioning from a stable environment to the unpredictability, uncertainty, and ambiguity characteristic of crises. Therefore, more and more extensive research in this area is postulated because [Thunnissen et al., 2013; Gallardo-Gallardo et al., 2020] – as both research and business practice indicate – it is the particular context that frequently provides the opportunity to identify and interpret the studied phenomena in a more accurate and useful way. Certainly, one of such significant contexts was the COVID-19 pandemic, which pushed the boundaries of talent management in organizations [Vaiman et al., 2021] and required the implementation of appropriate adaptive measures both within OTM and HRM, as well as in their interrelations, considering the impact on organizational performance.

The focus of this article is comprehensive examination of how OTM, as a sub-function of HRM, directly and indirectly influences the performance outcomes of a company. This influence will be analyzed in four different contexts: in the Central European headquarters (HQs) of multinational companies (MNCs) during both the pre-pandemic and pandemic periods of COVID-19, as well as in the foreign subsidiaries of these MNCs during the same periods. Focusing on OTM in different contexts provides valuable insights into its impact on organizational performance. Analyzing OTM in MNC HQs highlights the comprehensive advantages of investing in this area over local subsidiaries. Assessing OTM during the pre-pandemic and pandemic periods is crucial given the significant disruptions caused by COVID-19. Grasping OTM's influence during these times helps organizations prepare and adapt

to ongoing challenges. Exploring OTM in multiple contexts identifies effective OTM strategies and adaptations to specific factors, benefiting organizations in today's complex business environment.

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 OTM 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. To solve this problem, **empirical research** was conducted and its **main goal** was to identify, analyze, and diagnose the relationships between these selected variables.

The article's assumptions draw from the functionalist and contextual approaches of the resource-based view on management [*c.f.* McDonnell, Wiblen, 2021]. Moreover, the adoption of human capital resources theory enhances the understanding of investing in high potentials alongside the resource-based view [*c.f.* Stor, 2014]. This combination explains the development of internal sources of competitive advantage, characterized by their rarity, inimitability, non-substitutability, and value [*c.f.* Kabwe, Okorie, 2019].

The paper presents a novel method to investigate the relatioship between OTM, HRM practices, employee performance, and company performance results. The author suggests using unique formulas to recalibrate research data, enhancing the accuracy of the relationships between the studied variables. The efficiency index (EI) is proposed as a way to adjust raw data, providing a better reflection of the efficiency of actions taken and results achieved. Furthermore, the relationships between the variables are explored in the previously mentioned four contexts. Collectively, these innovations contribute significantly to the field of management science.

The article is structured as follows. It begins with a concise theoretical framework derived from a literature review. Next, it elucidates the methodics employed in the empirical research. The subsequent section illustrates the findings of the empirical research. Lastly, the article concludes by providing a summary of the research results and discussing their significance for both management theory and business practice.

1. Theoretical framework adopted in the empirical research

1.1. OTM and company performance results

As previously mentioned, OTM has gained significant attention as a strategic driver for achieving competitive advantage and overall company success. The literature review reveals compelling evidence for the positive impact of OTM practices on various aspects of company performance [*c.f.* Collings et al., 2019]. Practices such as

talent acquisition, training, and development can directly influence HRM outcomes. This is because they enable organizations to attract and retain skilled and motivated employees, creating a high-performing workforce [Deery, 2008; Kontoghiorghes, 2016]. This subsequently results in reduced turnover rates, increased employee satisfaction, and enhanced productivity, which contribute to improved HRM outcomes [Sharma, Bhatnagar, 2017]. Moreover, OTM plays a pivotal role in influencing a company's financial performance. A competent and engaged workforce enhances operational efficiency and reduces costs [Elia et al., 2017]. Aligning OTM strategies with business objectives refines decision-making processes and resource allocation, resulting in better financial outcomes [Noreen, Irman, 2021]. Prior empirical research also indicates that elevating the level of OTM leads to more favorable financial outcomes for companies [Stor, Haromszeki, 2021]. In addition to HRM and financial impact, a systematic literature review shows that OTM practices can significantly impact a company's innovativeness [see: Baglieri et al., 2019]. Cultivating employees' skills [Nurfadilah et al., 2022] and fostering an environment conducive to creativity [Ibrahim, AlOmari, 2020] and idea-sharing promotes a culture of innovation [Ingram, 2013]. This enables organizations to adapt to changing market demands, introduce novel products and services, and gain a competitive edge [Collings, 2014]. Furthermore, OTM practices have a direct bearing on the quality of products or services offered by a company. Investing in employee training and skill development ensures the workforce is poised to deliver high-quality outputs [Nafei, 2015]. Emphasizing quality as a core value encourages a culture of continuous improvement [Rexhepi, Vladi, 2015] and customer satisfaction, which positively impacts the overall quality of the company's offerings [Kuntonbutr, Sangperm, 2019].

Based on the succinct literature review, it was assumed that OTM, as a subfunction of HRM, may have a direct impact on the company's performance results. While various concepts and metrics exist for measuring company performance results [e.g., Venkatraman, Ramanujam, 1986; Garengo et al., 2022], this article divides the company's performance results into four categories: HRM, finance, innovativeness, and quality. It is important to clarify that the term "company performance results" used here is not synonymous with "company performance". The former refers to the final outcomes achieved through specific activities, whereas the latter alludes to the enactment of those activities [Stor, 2023a: 43]. Consequently, this article focuses on the ultimate measurement of outcomes at a specific juncture, rather than undertakings themselves. Within this context, the article formulates one main hypothesis and four auxiliary hypotheses to describe the relationships between OTM and company performance results as follows:

- **H1: OTM impacts directly and positively on the company's performance results.**
- $\mathbf{H_{1A}}$ – OTM impacts directly and positively on the company's performance results in HRM (HRM outcomes).

- **H_{1B}** – OTM impacts directly and positively on the company's performance results in finance.
- **H_{1C}** – OTM impacts directly and positively on the company's performance results in innovativeness.
- **H_{1D}** – OTM impacts directly and positively on the company's performance results in quality.

1.2. The mediating role of HRM outcomes

In the introduction, it was mentioned that in this article, OTM is treated as one of the subfunctions of HRM. In this perspective, OTM doesn't operate in isolation from HRM but in conjunction with its other subfunctions [King, Vaiman, 2019]. In practical terms, this suggests that OTM may have an indirect influence on company performance results by engaging with other HRM subfunctions [Vardi, Collings, 2023; Haromszeki, 2023]. Due to these multiple interactions with other HRM subfunctions, it can be asserted that OTM can indirectly influence the company's performance results through HRM outcomes [Bethke-Langenegger et al., 2011]. These interactions are essential because they create a comprehensive and synergistic HRM approach that encompasses all employees, not merely those identified as talents [*c.f.* Kehoe, Tzabbar, 2015]. Furthermore, they emphasize the alignment of OTM with other HRM subfunctions, which cover a wide range of HR activities beyond talent management. In essence, the importance of these interactions lies in creating a holistic HRM approach that maximizes the potential of both talents and the broader employee base, contributing to enhanced organizational performance and success through well-rounded HRM outcomes.

To ensure consistency in terminology, the term "outcomes" is used in the article to refer to the company's performance results within the realm of HRM. Yet, when HRM acts as a mediator, "outcomes" is favored over "results". The literature widely agrees on the significance of focusing on HRM systems as a whole, rather than isolating individual subfunctions, when examining interactions between HRM subfunctions and overall HRM outcomes. This is because the impact of individual HRM subfunctions may depend on other subfunctions [Boon et al., 2019] and their respective results [Collings et al., 2022]. Based on the literature's findings, one main hypothesis and three auxiliary hypotheses have been formulated to explain the mediating role of HRM outcomes in the relationship between OTM and company performance results as follows:

- **H2: The company's performance results in HRM mediate positively the relationships between OTM and the company's performance results.**

- **H_{2A}** – The company's performance results in HRM (HRM outcomes) mediate positively the relationships between OTM and the company's performance results in finance.
- **H_{2B}** – The company's performance results in HRM (HRM outcomes) mediate positively the relationships between OTM and the company's performance results in innovativeness.
- **H_{2C}** – The company's performance results in HRM (HRM outcomes) mediate positively the relationships between OTM and the company's performance results in quality.

1.3. The pre-pandemic and pandemic context in MNCs

As stated in the introduction, the primary research focus of this article is to examine the relationships between specific variables in four distinct settings: at the HQs of MNCs, in their foreign subsidiaries, and for both types of these business entities – in the pre-pandemic and pandemic period of COVID-19. Regarding the organizational context, this article assumes that the consideration of OTM at the HQs or in the foreign subsidiaries of MNCs is significant [*c.f.* Collings et al., 2022]. The practices of OTM at HQs and local units of MNCs may differ significantly due to the need to align OTM activities with organizational goals and strategies [Ambrosius, 2018], accommodate the requirements and expectations of employees and managers [Glaister et al., 2018] and take into account local factors such as labor market conditions, economic situations, characteristics of society, and legal regulations [Collings et al., 2019].

Regarding the pandemic context, empirical research shows that the COVID-19 pandemic resulted in significant OTM challenges. These challenges included hiring freezes or even significant layoffs, compensation freezes or pay reductions, alterations in work arrangements (such as remote work), and redefinition of performance appraisal [Aguinis, Burgi-Tian, 2021]. They also encompassed increased stress and burnout among employees. [Reinwald et al., 2021]. These challenges necessitated that HRM subfunctions collaborate more closely to positively impact the company's performance [Vaiman et al., 2021]. For example, the shift to remote work required collaboration between the HRM subfunctions responsible for employee training and development, IT support, and performance management to ensure that employees had the essential skills, tools, and support for effective home-based work [Cewińska, Striker, 2022; Fernandes et al., 2023]. Similarly, addressing employee stress and burnout during the pandemic required collaboration between the HRM subfunctions focused on employee wellbeing, benefits, and performance management to develop and implement strategies bolstering employees' mental health and wellbeing [Hamouche, 2021].

Overall, the increased complexity of OTM during the pandemic necessitated more intense interactions with other HRM subfunctions to ensure that the company's

performance was positively impacted. This means that during this period, the combined outcomes of these subfunctions could play a more significant role as a mediator in the connections between OTM and the organization's performance results. Given this rationale, one main hypothesis and three auxiliary hypotheses have been formulated, aiming to describe the expected differences in the mediating role of the HRM outcomes in the pre-pandemic and pandemic periods as follows:

- **H3: During the pandemic, the company's performance results in HRM more strongly mediate the relationships between OTM and the company's performance than in the pre-pandemic time.**
- **H_{3A}** – During the pandemic, the company's performance results in HRM more strongly mediate the relationships between OTM and the company's performance results in finance than in the pre-pandemic time.
- **H_{3B}** – During the pandemic, the company's performance results in HRM more strongly mediate the relationships between OTM and the company's performance results in innovativeness than in the pre-pandemic time.
- **H_{3C}** – During the pandemic, the company's performance results in HRM more strongly mediate the relationships between OTM and the company's performance results in quality than in the pre-pandemic time.

The aforementioned hypotheses will be individually examined for the HQs of MNCs and their foreign subsidiaries, in accordance with the adopted distinction of specific contexts.

2. The methodics of the conducted empirical research

2.1. The research sample, measures and data collection method

The empirical research took place in March 2022. It involved a sample of 200 nonfinancial business entities with their HQs situated in a Central European country (Poland) and having foreign subsidiaries. The selected 200 MNCs collectively employed 76,740 people worldwide. The number of employees in these entities ranged from 35 to 4,000 individuals. These MNCs operated 416 foreign subsidiaries across 26 countries. This constituted approximately 11% of the general population. Furthermore, about 80% of the sample represented the entire population [*Activity of enterprises*…, 2022]. Based on the NACE classification of economic activities, enterprise size, and type of foreign direct investment, the research sample closely resembled general population. The purposive selection of the sample considered these characteristics. Two additional criteria were applied in the purposive sampling process. Firstly, both the headquarters and their foreign subsidiaries had to be predominantly owned by Polish capital. This decision was influenced by prior research indicating that the size

of equity capital significantly impacts management decisions and activities within organizations [Bedő, Ács, 2007; Ferner et al., 2012; Poór et al., 2017]. Ensuring relative consistency in this aspect across the sample enhanced comparability between HQs and foreign subsidiaries [*cf.* Parry et al., 2021]. This enabled respondents to perceive and interpret the context similarly and understand HQ measures for assessing foreign subsidiary results in different countries [*cf.* Farndale et al., 2010]. Such comparability proved essential for benchmarking-based comparative research, which was employed in this study [*cf.* Schlägel, Sarstedt, 2016]. The second criterion involved a minimum market operation period of four years for both HQs and foreign subsidiaries. This duration was considered the minimum time required to identify causal relationships between the variables of interest during the pre-pandemic and pandemic periods.

The study used the CATI method, which is a computer-aided telephone interview based on a structured questionnaire. The respondents were individuals knowledgeable in both HRM and organizational results, including business owners, managing directors/CEOs, HR directors, HR managers, and HR business partners. They were asked to provide information for two time periods: the pre-pandemic period of 2018–2019 and the pandemic period from the beginning of 2020 to March 2022 when the interview was conducted.

The research focused on four main variables: company performance results, the advancement level of OTM, the significance level of OTM, and the efficiency of employees' performance. Company performance results were evaluated by survey participants in four categories (finance, innovation, quality, and HRM) through a benchmarking process comparing companies with similar business profiles. The advancement level of OTM was assessed by respondents through a benchmarking process comparing with best market practices. The method of subjective benchmarking, which relies on self-assessment, was utilized for two primary reasons. The first reason is the potential lack of publicly accessible objective accounting or financial market data when assessing the performance of MNC subsidiaries. This makes benchmarking based on hard measures challenging, particularly in cross-country comparisons. As a result, managers' subjective estimates are frequently used as an alternative [see Schlägel, Sarstedt, 2016]. The second reason is that, in contrast to objective measures, these subjective measures enable key informants to have a solid understanding of the context of interest's dimensionality. They can evaluate performance scores against multiple antecedents and past performance [refer to Richard et al., 2009]. As for the significance level of OTM, it referred to the importance of activities and processes within this HRM subfunction for the company's performance. The efficiency of employees' performance was understood as employees' work outcomes and assessed against established standards in terms of KPIs (key performance indicators). Each of the aforementioned variables was evaluated using a 5-point scale for both the HQs and their largest foreign subsidiaries. The corresponding scales are shown at the bottom of Table 1.

2.2. The formulas used for data transformation and statistical methods for data analysis

In this study, the collected data underwent reprocessing using specially designed unique formulas before analysis. This idea was created after thorough consideration of the nature of the studied phenomena. While numerous studies demonstrate the impact of HRM practices on employee performance results, which, in turn, directly impact company performance results [Cascio et al., 2019; Garengo et al., 2022], there are also unexpected findings. For instance, a company may exhibit high productivity and (KPIs) but still lack profitability due to external factors like strong market competition or reduced consumer demand. These phenomena were observable during circumstances such as the Great Recession [Kim, Ployhart, 2014] or the COVID-19 pandemic [Blustein et al., 2020]. Enhanced productivity suggests effective utilization of human capital resources [Sheehan, Garavan, 2022], enabling the company to generate above-average returns. However, external factors may constrain their potential for usage. Increasing productivity is vital to create surplus (slack) resources that can be utilized to grow business operations and explore further revenue-generating opportunities with a more efficient workforce [Kim, Ployhart, 2014; Cascio et al., 2019]. Hence, from a business and management standpoint, it appears advantageous for empirical research to focus more on the efficiency and effectiveness of the actions taken and the outcomes attained. It is important to note that efficiency and effectiveness are two distinct concepts. Efficiency pertains to how well resources are utilized to achieve objectives [Rogers, Wright, 1998] and is measured by the ratio of output to input [Stor, 2012]. On the other hand, effectiveness measures how well desired goals are achieved [Ostroff, Schmitt, 1993; Stor, 2012].

Given the variety of methods to develop and use slack HRM practices and human capital resources for better business operations, measuring the relationships between investigated variables can be ambigious. To address this, the author of this article suggests an innovative approach previously applied in studies on employee performance appraisal [Stor, 2023b]. Precisely, to accurately capture the relationships between OTM, HRM activities, and organizational performance results, raw data for these variables was adjusted using an efficiency index (EI). Therefore, the **transformed values of the OTM variable** were calculated using the following formula (1), which expresses the ratio of the OTM advancement level to the efficiency of employees as indicated by the employee KPIs used in the studied companies:

Formula (1).
$$EI\_OTM = \frac{AL\_OTM}{EKPIs}$$

Where:
EI_OTM – Efficiency index of organizational talent management

AL_OTM – Advancement level of organizational talent management
EKPI – Employee key performance indicators

The modified values of the company performance results were transformed using formula (2) below. This formula represents the ratio of the company performance results to the efficiency of employees, as indicated by the employee KPIs used in the studied companies:

Formula (2). $$\text{EISCPR in (x)} = \frac{\text{CPR in (x)}}{\text{EKPIs}}$$

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

The formulas were developed to compute the value of individual category of the company performance results. Therefore, in the formula above data on results in HRM, finance, innovation, and quality were used in place of (x).

The collected data underwent examination using descriptive, correlational, and mediation statistical methods. Initially, normality tests such as the Kolmogorov-Smirnov test (with Lilliefors correction) and the Shapiro-Wilk test were applied. Subsequently, Spearman's rank coefficient was used to explore the relationships between the variables. For the final stage of analysis, the author applied Partial Least Squares Structural Equation Modeling (PLS-SEM) in the R environment with the lavaan package v. 0.6–12 software [*c.f.* Rosseel, 2012; Savalei, Rosseel, 2022] to assess the research hypotheses and examine mediating effects. The choice of PLS-SEM was primarily due to its effectiveness in handling non-normal variable distributions and its suitability for theory development and explaining variance in the presented studies [Mehmetoglu, Venturini, 2021; Hair et al., 2022]. Moreover, PLS-SEM enables the analysis of differences between coefficient paths of different variable sets [Picón-Berjoyo et al., 2016] and has become an extensively used method for studying the impact of HRM practices on organizational performance [Ringle et al., 2020]. It is worth noting that the correlation and path analysis were performed on variable values that had been adjusted by the EI.

3. The empirical research findings

3.1. The descriptive and correlational statistics

Analyzing the data presented in Table 1 concerning descriptive statistics, certain regularities can be observed. Both in HQs of MNCs and in their foreign subsidiaries, performance results in HRM, finance, and quality were similar to or slightly above the average results achieved by other organizations, with the noteworthy observation – not surprisingly – that in both cases, these results were slightly better before the pandemic than during it. However, what is surprising is that performance results in innovativeness (rated above average compared to other enterprises) were higher during the pandemic, both in HQs ($\overline{x} = 3.82$) and foreign subsidiaries ($\overline{x} = 3.90$), than before the pandemic ($\overline{x} = 3.77$; $\overline{x} = 3.93$; $\overline{x} = 3.81$ respectively). Another surprising regularity looks similar. Employee performance, measured using standard company KPIs, although consistent with the adopted standards, was also slightly higher during the pandemic period in both types of examined organizations. The next regularity, this time as expected, pertains to the fact that in both types of organizations, both the significance and advancement level of OTM were slightly higher before the pandemic than during its duration.

When searching for certain patterns in correlations between variables, it is worth noting at the outset that all of them are positively correlated with each other, regardless of the considered context (see Table 2). The correlation coefficients for these variables fall within the range of r =.41 (p <.001) to r =.91 (p <.001), indicating correlations that vary from moderate to strong. Regarding the regularities, the correlations between the advancement level of OTM and performance results in HRM, quality, and innovativeness are slightly stronger during the pandemic than before it, both in HQs and their foreign subsidiaries. In turn, the correlation between the advancement level of OTM and performance results in finance in HQs is slightly stronger during the pandemic – in contrast to foreign subsidiaries, where it is slightly lower than before the pandemic.

Addressing potential concerns of multicollinearity, the Variance Inflation Factor (VIF) for each variable across different contexts was calculated. For the HQs in the pre-pandemic time, the VIF values were 1.41 for results in HRM, 3.56 for results in finance, 2.44 for results in innovativeness, and 1.92 for results in quality. During the pandemic time at the HQs, the VIF values were observed to be 1.61 for results in HRM, 2.00 for results in finance, 2.78 for results in innovativeness, and 1.75 for results in quality. In the context of foreign subsidiaries before the pandemic, the VIF values were 1.52 for results in HRM, 3.88 for results in finance, 1.92 for results in innovativeness, and 1.61 for results in quality.

Table 1. Descriptive statistics for the major variables

Variables	HQS IN THE PRE-PANDEMIC TIME					Variables	HQS IN THE PANDEMIC TIME				
	Valid N	Mean	Min.	Max.	Std.Dev.		Valid N	Mean	Min.	Max.	Std.Dev.
Results in HRM	200	3.98	3.0	5.0	0.38	Results in HRM	200	3.92	3.0	5.0	0.37
Results in finance	200	4.03	3.0	5.0	0.32	Results in finance	200	3.92	3.0	5.0	0.36
Results in innovativeness	200	3.77	2.0	5.0	0.57	Results in innovativeness	200	3.82	2.0	5.0	0.54
Results in quality	200	3.85	3.0	5.0	0.60	Results in quality	200	3.77	2.0	5.0	0.58
Employee performance in KPIs	200	3.00	2.0	4.0	0.49	Employee performance in KPIs	200	3.24	2.0	4.0	0.53
Advancement level of OTM	200	3.35	1.0	5.0	0.65	Advancement level of OTM	200	3.25	2.0	5.0	0.62
Significance level of OTM	200	3.50	2.0	5.0	0.59	Significance level of OTM	200	3.37	2.0	5.0	0.64
Variables	FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					Variables	FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
	Valid N	Mean	Min.	Max.	Std.Dev.		Valid N	Mean	Min.	Max.	Std.Dev.
Results in HRM	200	3.98	3.0	5.0	0.31	Results in HRM	200	3.92	3.0	5.0	0.34
Results in finance	200	3.99	3.0	5.0	0.24	Results in finance	200	3.93	3.0	5.0	0.37
Results in innovativeness	200	3.81	2.0	5.0	0.56	Results in innovativeness	200	3.90	3.0	5.0	0.50
Results in quality	200	3.81	2.0	5.0	0.57	Results in quality	200	3.77	3.0	5.0	0.54
Employee performance in KPIs	200	3.05	2.0	4.0	0.39	Employee performance in KPIs	200	3.19	2.0	4.0	0.51
Advancement level of OTM	200	3.33	2.0	4.0	0.57	Advancement level of OTM	200	3.19	2.0	5.0	0.59
Significance level of OTM	200	3.36	2.0	5.0	0.62	Significance level of OTM	200	3.32	2.0	5.0	0.64

Scales:
Company performance results in HRM, finance, innovativeness, quality → benchmarked to the companies of similar business profile: 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 – in line with the standards, 4 – rather higher than standards, 5 – significantly higher than standards.
Advancement level of OTM → benchmarked to the best market practices: 1 – significantly lower, 2 – lower, 3 – similar to others, 4 – higher, 5 – significantly higher.
Significance level of OTM to the company's performance results: 1 – not important, 2 – slightly important, 3 – important, 4 – very important, 5 – of critical significance.

Source: own empirical research.

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

Variables	HQS IN THE PRE-PANDEMIC TIME					Variables	HQS IN THE PANDEMIC TIME				
	1. $\left(\frac{F}{EKPIs}\right)$	2. $\left(\frac{Q}{EKPIs}\right)$	3. $\left(\frac{I}{EKPIs}\right)$	4. $\left(\frac{HRM}{EKPIs}\right)$	5. $\left(\frac{AL\_OTM}{EKPIs}\right)$		1. $\left(\frac{F}{EKPIs}\right)$	2. $\left(\frac{Q}{EKPIs}\right)$	3. $\left(\frac{I}{EKPIs}\right)$	4. $\left(\frac{HRM}{EKPIs}\right)$	5. $\left(\frac{AL\_OTM}{EKPIs}\right)$
Results in finance $\left(\frac{F}{EKPIs}\right)$	1.00	0.70*	0.77*	0.91*	0.54*	Results in finance $\left(\frac{F}{EKPIs}\right)$	1.00	0.67*	0.75*	0.89*	0.58*
Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.70*	1.00	0.57*	0.69*	0.41*	Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.67*	1.00	0.63*	0.65*	0.46*
Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.77*	0.57*	1.00	0.76*	0.49*	Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.75*	0.63*	1.00	0.80*	0.49*
Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.91*	0.69*	0.76*	1.00	0.54*	Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.89*	0.65*	0.80*	1.00	0.62*
Advancement level of OTM $\left(\frac{AL\_OTM}{EKPIs}\right)$	0.54*	0.41*	0.49*	0.54*	1.00	Advancement level of OTM $\left(\frac{AL\_OTM}{EKPIs}\right)$	0.58*	0.46*	0.49*	0.62*	1.00
Variables	FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					Variables	FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
	1. $\left(\frac{F}{EKPIs}\right)$	2. $\left(\frac{Q}{EKPIs}\right)$	3. $\left(\frac{I}{EKPIs}\right)$	4. $\left(\frac{HRM}{EKPIs}\right)$	5. $\left(\frac{AL\_OTM}{EKPIs}\right)$		1. $\left(\frac{F}{EKPIs}\right)$	2. $\left(\frac{Q}{EKPIs}\right)$	3. $\left(\frac{I}{EKPIs}\right)$	4. $\left(\frac{HRM}{EKPIs}\right)$	5. $\left(\frac{AL\_OTM}{EKPIs}\right)$
Results in finance $\left(\frac{F}{EKPIs}\right)$	1.00	0.62*	0.65*	0.90*	0.62*	Results in finance $\left(\frac{F}{EKPIs}\right)$	1.00	0.69*	0.79*	0.87*	0.61*
Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.62*	1.00	0.47*	0.61*	0.43*	Results in quality $\left(\frac{Q}{EKPIs}\right)$	0.69*	1.00	0.61*	0.64*	0.46*
Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.65*	0.47*	1.00	0.68*	0.53*	Results in innovativeness $\left(\frac{I}{EKPIs}\right)$	0.79*	0.61*	1.00	0.84*	0.55*
Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.90*	0.61*	0.68*	1.00	0.58*	Results in HRM $\left(\frac{HRM}{EKPIs}\right)$	0.87*	0.64*	0.84*	1.00	0.60*
Advancement level of OTM $\left(\frac{AL\_OTM}{EKPIs}\right)$	0.62*	0.43*	0.53*	0.58*	1.00	Advancement level of OTM $\left(\frac{AL\_OTM}{EKPIs}\right)$	0.61*	0.46*	0.55*	0.60*	1.00

Notes: * Marked correlations are significant at p < ,00010.

Source: own empirical research.

During the pandemic time in these subsidiaries, the VIF values stood at 1.56 for results in HRM, 2.35 for results in finance, 3.45 for results in innovativeness, and 1.69 for results in quality. Generally, a VIF value above 5 indicates potential multicollinearity [Ringle et al., 2023]. In this study, all VIF values are well below this threshold, suggesting that multicollinearity is not a significant concern in the models.

3.2. Mediation statistics based on PLS-SEM

At the final stage of data analysis, a path analysis in PLS-SEM was performed to test the hypotheses and identify some other regularities. The results are presented in Tables 3–5. Regarding the verification of hypotheses, the main hypothesis **H1** is only partially validated. This is due to the complete acceptance of the auxiliary hypothesis $\mathbf{H_{1A}}$, indicating that OTM has a direct and positive impact on the company's performance results in HRM in the four examined contexts. looking at the specifics, both at the HQs and local subsidiaries, this effect is stronger during the pandemic ($\beta = 0.62$; $p < 0.001$ and $\beta = 0.60$; $p < 0.001$, respectively) compared to before this period ($\beta = 0.54$; $p < 0.001$ and $\beta = 0.58$; $p < 0.001$, respectively). OTM also has a positive influence on results in finance ($\mathbf{H_{1B}}$), but this is not statistically significant at the HQs during the pandemic. The impact on innovativeness ($\mathbf{H_{1C}}$) and quality ($\mathbf{H_{1D}}$), is observed in all four studied contexts. However, the results in innovativeness are statistically significant only in the foreign subsidiaries before the pandemic. As for the results in quality, they are not statistically significant in any of the explored contexts.

The main **H2** can be accepted in its entirety since the HRM outcomes positively mediate the connections between OTM and the other three company performance categories, irrespective of the context under consideration. This is supported by the positive verification of three auxiliary hypotheses, namely $\mathbf{H_{2A}}$, $\mathbf{H_{2B}}$, and $\mathbf{H_{2C}}$. For hypothesis $\mathbf{H_{2A}}$, the HRM outcomes are found to positively mediate the relationships between OTM and the company's performance results in finance. At the HQs, this is observed both in the pre-pandemic ($\beta = 0.86$; $p < 0.001$) and pandemic period ($\beta = 0.86$; $p < 0.001$). In foreign subsidiaries, this mediation is also evident in both periods ($\beta = 0.82$; $p < 0.001$ and $\beta = 0.79$; $p < 0.001$, respectively). Concerning hypothesis $\mathbf{H_{2B}}$, the HRM outcomes positively mediate the relationships between OTM and the company's performance in innovativeness. This is seen both at the HQs and in the local subsidiaries during the pre-pandemic time ($\beta = 0.71$; $p < 0.001$ and $\beta = 0.56$; $p < 0.001$, respectively) and during the pandemic ($\beta = 0.80$; $p < 0.001$ and $\beta = 0.79$; $p < 0.001$, respectively). Regarding the hypothesis $\mathbf{H_{2C}}$, the HRM outcomes also demonstrate a positive mediating effect on the relationship between OTM and the company's performance results in quality. This effect is observed both at the HQs and in the local subsidiaries in the pre-pandemic period ($\beta = 0.66$; $p < 0.001$ and

$\beta = 0.54$; $p < 0.00$, respectively) and during the pandemic ($\beta = 0.59$; $p < 0.001$ and $\beta = 0.57$; $p < 0.001$, respectively).

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

HQS IN THE PRE-PANDEMIC TIME					HQS IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
OTM → Finance	0.08	2.38	< 0.05	[0.01;0.14]	OTM → Finance	0.05	1.16	> 0.05	-
OTM → HRM (α)	0.54	6.95	< 0.001	[0.39;0.69]	OTM → HRM (α)	0.62	10.01	< 0.001	[0.50;0.74]
HRM → Finance	0.86	18.33	< 0.001	[0.77;0.96]	HRM → Finance	0.86	16.02	< 0.001	[0.76;0.97]
Mediation effect of HRM (αβ)	0.47	6.30	< 0.001	[0.32;0.61]	Mediation effect of HRM (αβ)	0.53	8.69	< 0.001	[0.41;0.65]
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
OTM → Finance	0.14	3.13	< 0.01	[0.05;0.23]	OTM → Finance	0.13	3.01	< 0.01	[0.04;0.21]
OTM → HRM (α)	0.58	7.58	< 0.001	[0.43;0.73]	OTM → HRM (α)	0.60	8.70	< 0.001	[0.47;0.74]
HRM → Finance	0.82	11.96	< 0.001	[0.68;0.95]	HRM → Finance	0.79	13.18	< 0.001	[0.68;0.91]
Mediation effect of HRM (αβ)	0.48	6.19	< 0.001	[0.33;0.63]	Mediation effect of HRM (αβ)	0.48	7.73	< 0.001	[0.36;0.60]

Note: All variables modified by the efficiency ratio (employee KPIs)

Source: own empirical research.

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

HQS IN THE PRE-PANDEMIC TIME					HQS IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
OTM → Innovativeness	0.11	1.61	> 0.05	-	OTM → Innovativeness	0.00	0.04	> 0.05	-
OTM → HRM (α)	0.54	6.95	< 0.001	[0.39;0.69]	OTM? HRM (α)	0.62	10.01	< 0.001	[0.50;0.74]
HRM → Innovativeness	0.71	11.19	< 0.001	[0.58;0.83]	HRM → Innovativeness	0.80	13.17	< 0.001	[0.68;0.91]
Mediation effect of HRM (αβ)	0.38	5.49	< 0.001	[0.25;0.52]	Mediation effect of HRM (αβ)	0.49	7.47	< 0.001	[0.36;0.62]
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
OTM → Innovativeness	0.20	2.70	< 0.01	[0.06;0.35]	OTM → Innovativeness	0.08	1.43	> 0.05	-
OTM → HRM (α)	0.58	7.58	< 0.001	[0.43;0.73]	OTM → HRM (α)	0.60	8.70	< 0.001	[0.47;0.74]

FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
HRM → Innovativeness	0.56	8.05	< 0.001	[0.42;0.69]	HRM → Innovativeness	0.79	12.06	< 0.001	[0.66;0.92]
Mediation effect of HRM (αβ)	0.32	5.73	< 0.001	[0.21;0.44]	Mediation effect of HRM (αβ)	0.48	6.57	< 0.001	[0.33;0.62]
Note: All variables modified by the efficiency ratio (employee KPIs)									

Source: own empirical research.

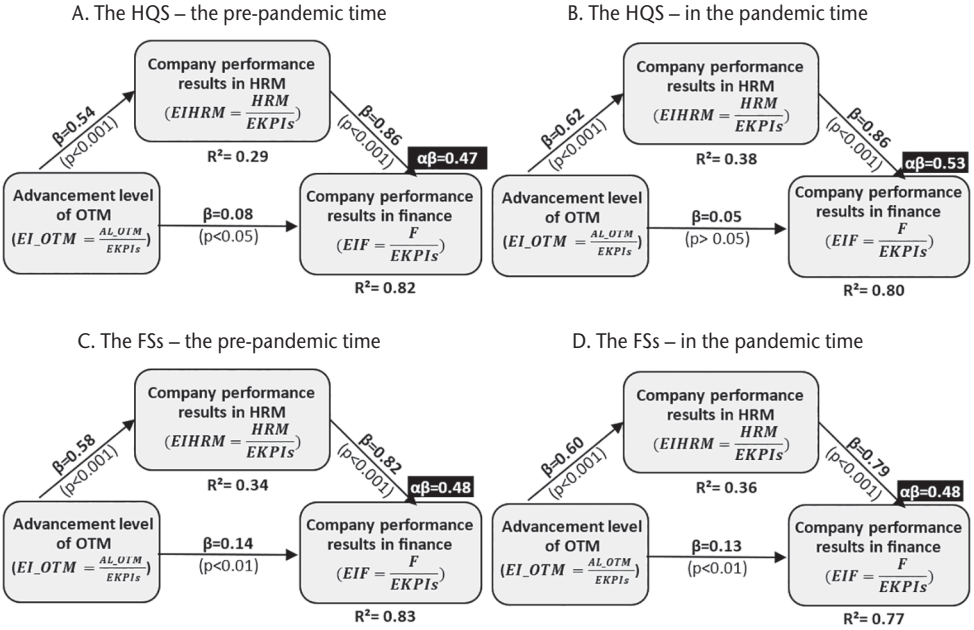
Table 5. Path analysis summary in PLS-SEM for OTM and company performance results in quality

HQS IN THE PRE-PANDEMIC TIME					HQS IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
OTM → Quality	0.06	0.61	> 0.05	-	OTM → Quality	0.09	1.34	> 0.05	-
OTM → HRM (α)	0.54	6.95	< 0.001	[0.39;0.69]	OTM → HRM (α)	0.62	10.01	< 0.001	[0.50;0.74]
HRM → Quality	0.66	6.29	< 0.001	[0.45;0.86]	HRM → Quality	0.59	7.31	< 0.001	[0.43;0.75]
Mediation effect of HRM (αβ)	0.35	5.40	< 0.001	[0.23;0.48]	Mediation effect of HRM (αβ)	0.37	6.23	< 0.001	[0.25;0.48]
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	β	Z	p	95%CI	Variables in paths	β	Z	p	95%CI
OTM → Quality	0.12	1.61	> 0.05	-	OTM → Quality	0.12	1.48	> 0.05	-
OTM → HRM (α)	0.58	7.58	< 0.001	[0.43;0.73]	OTM → HRM (α)	0.60	8.70	< 0.001	[0.47;0.74]
HRM → Quality	0.54	5.52	< 0.001	[0.35;0.74]	HRM → Quality	0.57	5.87	< 0.001	[0.38;0.76]
Mediation effect of HRM (αβ)	0.32	5.52	< 0.001	[0.20;0.43]	Mediation effect of HRM (αβ)	0.34	4.83	< 0.001	[0.20;0.48]
Note: All variables modified by the efficiency ratio (employee KPIs)									

Source: own empirical research.

The main hypothesis **H3** can be accepted only to a certain extent. While the auxiliary hypotheses $\mathbf{H_{3B}}$ and $\mathbf{H_{3C}}$ are positively confirmed in both organizational contexts, hypothesis $\mathbf{H_{3A}}$ is validated only in one of them. The details of the identified regularities are as follows. With regard to the results in finance ($\mathbf{H_{3A}}$), at the HQs the indirect mediation effect is stronger during the pandemic ($\alpha\beta = 0.53$; $p < 0.001$) than in pre-pandemic period ($\alpha\beta = 0.47$; $p < 0.001$). In contrast in the foreign subsidiaries, the effect remains consistent in both periods ($\alpha\beta = 0.48$; $p < 0.001$). These findings are presented in Figure 1.

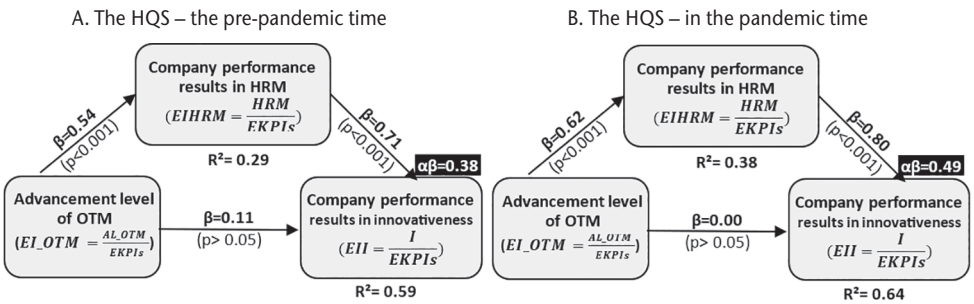
Figure 1. The HRM mediation model of the relationships between OTM and company performance results in finance

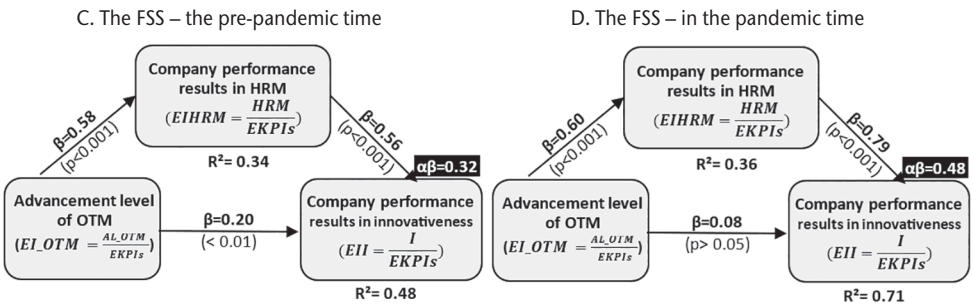


Source: own empirical research.

In the case of the results in innovativeness (H_{3B}), the indirect mediation effect is stronger during the pandemic, both at the HQs ($\alpha\beta = 0.49$; $p < 0.001$) and local subsidiaries ($\alpha\beta = 0.48$; $p < 0.001$) compared to the pre-pandemic period ($\alpha\beta = 0.38$; $p < 0.001$; $\alpha\beta = 0.32$; $p < 0.001$, respectively). These findings are presented in Figure 2.

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

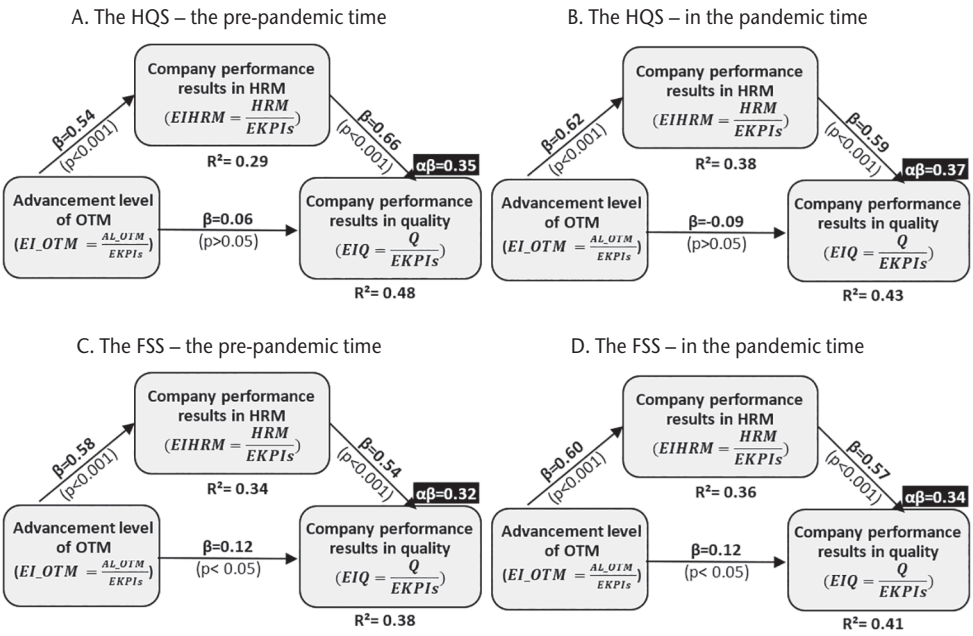




Source: own empirical research.

When it comes to the results in quality, ($\mathbf{H_{3C}}$) the indirect mediation effect is stronger during the pandemic, both at the HQs ($\alpha\beta = 0.37$; $p < 0.001$) and local subsidiaries ($\alpha\beta=0.34$; $p < 0.001$) compared to the pre-pandemic time ($\alpha\beta = 0.35$; $p < 0.001$; $\alpha\beta = 0.32$; $p < 0.001$, respectively). These findings are presented in Figure 3.

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



Source: own empirical research.

Regarding the explanatory power of all the models, as shown in Table 6, the amount of variance explained in the company performance results ranges from moderate to strong [Ringle et al., 2020; Hair et al., 2022].

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

HQS IN THE PRE-PANDEMIC TIME		HQS IN THE PANDEMIC TIME	
Variables in models	R^2	Variable in models	R^2
Results in HRM	0.29	Results in HRM	0.38
Results in finance	0.82	Results in finance	0.80
Results in innovativeness	0.59	Results in innovativeness	0.64
Results in Quality	0.48	Results in Quality	0.43
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME		FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME	
Variable in models	R^2	Variable in models	R^2
Results in HRM	0.34	Results in HRM	0.36
Results in finance	0.83	Results in finance	0.77
Results in Innovativeness	0.48	Results in Innovativeness	0.71
Results in Quality	0.38	Results in Quality	0.41
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: own empirical research.

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 OTM and company performance results. We also aimed to identify patterns in these relations during both the pre-pandemic and pandemic period of COVID-19, focusing on the HQs and foreign subsidiaries of MNCs. To solve this problem, **empirical research was conducted and its main goal** was to identify, analyze, and diagnose the relationships between these selected variables. Based on the research findings presented in the preceding sections, we can conclude that our goals have been successfully met. We have effectively analyzed the relationships among the selected variables in their respective contexts.

In the broader context of existing literature, it's important to compare our findings with research conducted before the pandemic. Historically, the mediating role of HRM outcomes in organizational performance was well-understood [Boon et al., 2019; Collings et al., 2022]. However, the current pandemic has brought forth

unique challenges and opportunities, emphasizing the adaptability and resilience of HRM practices.

In summary, the research findings indicate that OTM had positive correlations with all categories of company performance results. Additionally, all performance categories showed positive correlations with each other, irrespective of whether they were observed in the HQs, in foreign subsidiaries successfully adopted OTM practices to various contexts, leading to enhanced performance outcomes. Consequently, a higher advancement in OTM corresponds to better results across four categories of organizational performance results. These findings align with the research of other authors, even although they might have used different measures of organizational outcomes [*c.f.* Collings et al., 2019; Stor, Haromszeki, 2021].

It's worth noting that the adaptability of OTM practices, as observed in our study, aligns with the findings from other researchers. In their pre-pandemic research, they highlighted the agility of HRM practices in responding to external shocks [Nijssen, Paauwe, 2012; Caligiuri et al., 2020]. The current pandemic, in many ways, has amplified the need for such agility. Additionally, the positive effect of OTM on company performance results in HRM was evident in all contexts. HRM outcomes also positively mediate the relationships between OTM and the company's performance results in finance, innovativeness, and quality. This validates the concerns expressed in existing literature that OTM is one of the HRM subfunctions [King, Vaiman, 2019], and its influence on organizational performance results should be assessed alongside the outcomes of other HRM subfunctions [Bethke-Langenegger et al., 2011; Vardi, Collings, 2023]. Moreover, during the pandemic, both types of entities, i.e. the HQs of MNCs and their foreign subsidiaries, reported slightly higher results in innovativeness. Additionally, employee performance in these structures was slightly better compared to the pre-pandemic period. This was accompanied by a stronger mediation of HRM outcomes between OTM and company performance results in innovativeness. During the pandemic, such stronger mediation of HRM outcomes was evident in both types of organizations concerning the relationships between OTM and company performance results in quality. A possible explanation for this phenomenon might be that the pandemic forced companies to adapt quickly to new challenges and find innovative solutions to maintain their operations. This could have boosted employee motivation and engagement, leading to higher levels of innovation and performance. Other researchers have also identified similar phenomena during the pandemic [*c.f.* Minbaeva, Navrbjerg, 2023]. Additionally, the stronger mediation of HRM outcomes between OTM and company performance results in innovativeness and quality suggests that companies have been successful in implementing effective HRM practices to support their employees during this challenging time. These practices may have included providing employees with the necessary resources, training, and support to perform their jobs effectively, as well as

fostering a culture of innovation and continuous improvement [*c.f.* Reinwald et al., 2021]. Overall, it appears that MNCs and their foreign subsidiaries have been able to successfully navigate the challenges posed by the pandemic, resulting in improved performance and innovation. In the the pre-pandemic era, there was already a focus on HRM practices [see: Baglieri et al., 2019] and OTM [see: Ingram, 2013; Ibrahim, AlOmari, 2020]. Both emphasized fostering a culture of innovation and continuous improvement. However, the pandemic has highlighted its importance, prompting organizations to reassess and strengthen their HRM strategies.

The general conclusions that can be drawn from the research is that OTM impacts directly and positively on the company's performance results in HRM in four considered contexts. Regardless of the context considered, HRM outcomes positively mediate the relationships between OTM and the other three categories of company performance results (finance, innovativeness, and quality). The indirect mediation effect of HRM is stronger during the pandemic than in the pre-pandemic period. However, for foreign subsidiaries and financial results, the mediating effect of HRM between OTM and financial results remained unchanged from the pre-pandemic to the pandemic.

The research findings have some limitations that should be noted. Firstly, the research sample structure is not completely representative of the general population for reasons that are explained in the research methodics section. Secondly, the survey solely focused on respondents from the HQs regarding performance results in foreign subsidiaries, neglecting input from local units, which is a notable drawback. Thirdly, the qualitative benchmarking method applied in the survey is limited because it does not use hard measures to evaluate results of company performance and the advancement level of OTM. Informants are asked to compare these results and levels with those of other businesses on the market that have similar profiles. Subsidiaries are established for various objectives, and consequently, there is no consensus in the literature [*c.f.* Lowe, Jones, 2004] on the definition of subsidiary performance. For large sample analysis, employing specific performance concepts is challenging. Empirical measures cannot be aggregated across firms and seldom accessible to academic researchers. Consequently, scholars have conceptualized subsidiary performance diversely, often resorting to empirical measures like self-benchmarking [Garengo et al., 2022], which is commonly used. Additionally, while having all the HQs of the MNCs located in a single Central European country was beneficial in providing a consistent economic, legal, cultural, and social context, the same cannot be said for their foreign subsidiaries. These subsidiaries were located in various countries with diverse contexts that were not considered in the study.

As mentioned above, the research findings have some limitations, but they also have multiple dimensions of value, both scientific and practical. The findings contribute to the management and organization science by revealing the mediating role of HRM

outcomes in the relationships between OTM and company performance results. The findings also explore potential patterns during the pre-pandemic and pandemic periods of COVID-19, specifically within the HQs and foreign subsidiaries of MNCs. As a result, they respond to the call for contextualization in research in both management science and HRM studies [Thunnissen et al., 2013; Gallardo-Gallardo et al., 2020]. Moreover, the studies explore how these two types of entities adapt to dynamic changes of a crisis nature in their environment, which is an under-researched area [*c.f.* Collings et al., 2022]. In short, the findings both confirm the results of other studies and provide new insights into the examined phenomena, specifically the relationships between selected variables across four unique contexts. This combined context introduces novelty to both the discipline and practice of management. Additionally, the use of an innovative approach that incorporates employee KPIs as an efficiency index in analyzing the relationships between variables of interest is noteworthy. As a result, the article directly contributes to functionalist and contextual approaches to resource-based studies in management, especially in managerial and leadership development.

The research findings also hold significant value for managers and decision-makers, aiding them in understating the relationships among the studied variables and thus making well-informed decisions. This, in turn, enables them to adapt their strategies and practices accordingly. The practical significance of this research is evident in its demonstration of the benefits of well-structured OTM activities. When these are accurately linked to other HRM subfunctions and aligned with the organizational context – especially during times of crisis [*c.f.* Vaiman et al., 2021] – they can positively impact managerial decision-making across different organizational domains. Furthermore, the findings suggest that enhancing managerial and leadership knowledge, skills, competencies, and behaviors, can effectively influence subordinates, leading to desired performance outcomes [*c.f.* Hamouche, 2021]. The research indicates that these measures can provide crucial support to organizations during challenging times of crisis, as reflected in the observed company performance results.

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References

[1] Abrahamson E. [1996], Management fashion, *Academy of Management Review* 21: 254–285, https://doi.org/10.5465/amr.1996.9602161572.

[2] *Activity of enterprises having foreign entities in 2020* [2022], Statistics Poland, Warsaw.

[3] Aguinis H., Burgi-Tian J. [2021], Talent management challenges during COVID-19 and beyond: Performance management to the rescue, *BRQ Business Research Quarterly* 24(3): 233–240, https://doi.org/10.1177/23409444211009528.

[4] Ambrosius J. [2018], Strategic talent management in emerging markets and its impact on employee retention: Evidence from Brazilian MNCs, *Thunderbird International Business Review* 60(1): 53–68, https://doi.org/10.1002/tie.21799.

[5] Baglieri D., Cinici M.C., Crupi A. [2019], Chapter 1: Talent management and innovation management: Review of the literature and challenges for future research, in: *Research Handbook of International Talent Management*, Edward Elgar Publishing, Retrieved Jul 28, 2023, Cheltenham, from https://doi.org/10.4337/9781786437105.00013.

[6] Battisti E., Graziano E.A., Pereira V., Vrontis D., Giovanis A. [2023], Talent management and firm performance in emerging markets: a systematic literature review and framework, *Management Decision* ahead-of-print, https://doi.org/10.1108/MD-10-2021-1327.

[7] Bedő Z., Ács B. [2007], The impact of ownership concentration, and identity on company performance in the US and in Central and Eastern Europe, *Baltic Journal of Management* 2(2): 125–139, 10.1108/17465260710750955.

[8] Bethke-Langenegger P., Mahler P., Staffelbach B. [2011], Effectiveness of talent management strategies, *European Journal of International Management* 5(5): 524–539, DOI: https://doi.org/10.1504/EJIM.2011.042177.

[9] Blustein D.L., Duffy R., Ferreira J.A., Cohen-Scali V., Cinamon R.G., Allan B.A. [2020], Unemployment in the time of COVID-19: A research agenda [Editorial], *Journal of Vocational Behavior* 119, https://doi.org/10.1016/j.jvb.2020.103436.

[10] 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, https://doi.org/10.1177/0149206318818718.

[11] Boudreau J.W., Ramstad P.M. [2005], Talentship, talent segmentation, and sustainability: A new HR decision science paradigm for a new strategy definition, *Human Resource Management* 44: 129–136, https://doi.org/10.1002/hrm.20054.

[12] Caligiuri P.M., De Cieri H., Minbaeva D.B., Verbeke A., Zimmermann A. [2020], International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice, *Journal of International Business Studies* 51: 697–713, https://doi.org/10.1057/s41267-020-00335-9.

[13] Cascio W.F., Boudreau J.W., Fink A.A. [2019], *Investing in people: Financial impact of human resource initiatives*, Society for Human Resource Management, Alexandria, Virginia.

[14] Cewińska J., Striker M. [2022], Virtualization of social relations in the organization from the employees' perspective, in: Stor M. (ed.), *Human capital management in the wandering context of events – challenges for the managerial staff*, Publishing House of Wroclaw University of Economics and Business, Wroclaw: 46–55, https://www.dbc.wroc.pl/Content/116846/download/.

[15] Collings D.G., Mellahi K., Cascio W.F. [2019], Global talent management and performance in multinational enterprises: A multilevel perspective, *Journal of Management* 45(2): 540–566, https://doi.org/10.1177/0149206318757018.

[16] Collings D.G. [2014], Toward mature talent management: Beyond shareholder value, *Human Resource Development Quarterly* 25: 301–319.

[17] Collings D.G., Mellahi K. [2009], Strategic talent management: A review and research agenda, *Human Resource Management Review* 19: 304–313, https://doi.org/10.1016/j.hrmr.2009.04.001.

[18] Collings D.G., Vaiman V., Scullion H. (ed.) [2022], *Talent management: A decade of developments*, Emerald Publishing Limited, Bingley, https://doi.org/10.1108/978–1-80117-834–120221001.

[19] Deery M. [2008], Talent management, work-life balance and retention strategies, *International Journal of Contemporary Hospitality Management* 20: 792–806.

[20] Elia P.T., Ghazzawi K., Arnaout B. [2017], Talent management implications in the Lebanese banking industry, *Human Resource Management Research* 7(2): 83–89, doi: 10.5923/j.hrmr.20170702.02.

[21] Farndale E., Paauwe J., Morris S.S., Stahl G.K., Stiles P., Trevor J., Wright P.M. [2010], Context-bound configurations of corporate HR functions in multinational corporations, *Human Resource Management* 49: 45–66, https://doi.org/10.1002/hrm.20333.

[22] Fernandes C., Veiga P.M., Lobo C.A., Raposo M. [2023], Global talent management during the COVID-19 pandemic? The Gods must be crazy! *Thunderbird International Business Review* 65(1): 9–19, https://doi.org/10.1002/tie.22249.

[23] Ferner A., Edwards T., Tempel A. [2012], Power, institutions and the cross-national transfer of employment practices in multinationals, *Human Relations* 65(2): 163–187, https://doi.org/10.1177/0018726711429494.

[24] Gallardo-Gallardo E., Thunnissen M., Scullion H. [2020], Talent management: Context matters, *The International Journal of Human Resource Management* 31(4): 457–473, https://doi.org/10.1080/09585192.2019.1642645.

[25] 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, https://doi.org/10.1108/IJPPM-04-2020-0177.

[26] Glaister A.J., Karacay G., Demirbag M., Tatoğlu E. [2018], HRM and performance – the role of talent management as a transmission mechanism in an emerging market context, *Human Resource Management Journal* 28: 148–166, https://doi.org/10.1111/1748–8583.12170.

[27] Hair J.F., Hult G.T.M., Ringle C.M., Sarstedt M. [2022], *A Primer on partial least squares structural equation modeling (PLS-SEM)*, 3 rd Edition, Sage, Thousand Oaks.

[28] Hamouche S. [2021], Human resource management and the COVID-19 crisis: Implications, challenges, opportunities, and future organizational directions, *Journal of Management & Organization* 1–16, doi:10.1017/jmo.2021.15.

[29] Haromszeki Ł. [2023], The effects of TM and CM on organizational leadership in foreign entities of MNCs, *International Journal of Contemporary Management* 1–14, https://doi.org/10.2478/ijcm-2023–0005.

[30] Ibrahim R., AlOmari G. [2020], The effect of talent management on innovation: Evidence from Jordanian Banks, *Management Science Letters* 10(6): 1295–1306.

[31] Ingram T. [2013], Linking organizational support to innovativeness – conceptual implications for talent management, *International Journal of Contemporary Management* 12(4): 20–31, https://www.ejournals.eu/ijcm/2013/12(4)/art/5339/.

[32] Kabwe C., Okorie C. [2019], The efficacy of talent management in international business: The case of European multinationals, *Thunderbird International Business Review* 61(6): 857–872, https://doi.org/10.1002/tie.22090.

[33] Kaliannan M., Darmalinggam D., Dorasamy M., Abraham M. [2022], Inclusive talent development as a key talent management approach: a systematic literature review, *Human Resource Management Review* 33(1): 1–23, https://doi.org/10.1016/j.hrmr.2022.100926.

[34] Kehoe R.R., Tzabbar D. [2015], Lighting the way or stealing the shine? An examination of the duality in star scientists' effects on firm innovative performance, *Strategic Management Journal* 36(5): 709–727, https://doi.org/10.1002/smj.2240.

[35] 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, https://doi.org/10.1037/a0035408.

[36] King K.A., Vaiman V. [2019], Enabling effective talent management through a macro-contingent approach: A framework for research and practice, *BRQ Business Research Quarterly* 22(3): 194–206, https://doi.org/10.1016/j.brq.2019.04.005.

[37] Kontoghiorghes C. [2016], Linking high performance organizational culture and talent management: Satisfaction/motivation and organizational commitment as mediators, *International Journal of Human Resource Management* 27(16): 1833–1853, https://doi.org/10.1080/09585192.2015.1075572.

[38] Kuntonbutr C., Sangperm N. [2019], Study on talent management influence on customer satisfaction, *Polish Journal of Management Studies* 20(2): 334–344, https://doi.org/10.17512/pjms.2019.20.2.28.

[39] Lowe A., Jones A. [2004], Emergent strategy and the measurement of performance: The formulation of performance indicators at the microlevel, *Organization Studies* 25(8): 1313–1337, https://doi.org/10.1177/0170840604046344.

[40] McDonnell A., Wiblen S. [2021], *Talent management: A research overview (1st ed.)*, Routledge, Taylor & Francis Group, New York–London, https://doi.org/10.4324/9780429342301.

[41] McDonnell A., Collings D.G., Mellahi K., Schuler R.S. [2017], Talent management: A systematic review and future prospects, *European Journal of International Management* 11(1): 86–128, DOI: 10.1504/EJIM.2017.081253.

[42] Mehmetoglu M., Venturini S. [2021], *Structural equation modelling with partial least squares using stata and R (1st ed.)*, Chapman and Hall/CRC, Tayor & Francis Group, New York, https://doi.org/10.1201/9780429170362.

[43] Minbaeva D.B., Navrbjerg S.E. [2023], Strategic human resource management in the context of environmental crises: A COVID-19 test, *Human Resource Management* 1–22, https://doi.org/10.1002/hrm.22162.

[44] Nafei W. [2015], The effects of talent management on service quality: A study on commercial banks in Egypt, *International Business Research* 8(4): 41.

[45] Nijssen M., Paauwe J. [2012], HRM in turbulent times: how to achieve organizational agility? *The International Journal of Human Resource Management* 23(16): 3315–3335, https://doi.org/10.1080/09585192.2012.689160.

[46] Noreen U., Irman R. [2021], Impact of talent management practices on financial performance: evidence from GCC banking sector, *Middle East Journal of Management* 8 (2/3): 113–124.

[47] Nurfadilah D, Samidi S., Daryanto W.M. [2022], The role of talent development on business performance in Islamic rural banks, *Frontiers in Education* 7: 1045729, doi: 10.3389/feduc.2022.1045729.

[48] Ostroff C., Schmitt N. [1993], Configurations of organizational effectiveness and efficiency, *Academy of Management Journal* 36: 1345–1361, https://doi.org/10.5465/256814.

[49] Parry E., Farndale E., Brewster C., Morley M.J. [2021], Balancing rigour and relevance: The case for methodological pragmatism in conducting large-scale, multicountry and comparative management studies, *British Journal of Management* 32: 273–282, 10.1111/1467-8551.12405.

[50] Picón-Berjoyo A., Ruiz-Moreno C., Castro I. [2016], A mediating and multigroup analysis of customer loyalty, *European Management Journal* 34: 701–713.

[51] Pocztowski A., Pauli U., Miś A. [2020], *Talent management in small and medium enterprises: Context, practices and outcomes*, Routledge, Taylor & Francis Group, New York – London, https://doi.org/10.4324/9781003036340.

[52] Poór J., Engle A., Brewster C. (eds.). [2017], *HRM in transition-practices of MNC-subsidiaries in Central and Eastern Europe, Russia and Kazakhstan (2015–2016)*, Selye University, Komárno.

[53] 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, https://doi.org/10.3389/fpsyg.2021.654126.

[54] Rexhepi I., Vladi B. [2015], Talent management and organizational quality improvement, *Academic Journal Of Interdisciplinary Studies* 4(3), doi: 10.5901/ajis.2015.v4n3p157.

[55] 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.

[56] 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, https://doi.org/10.1016/j.dib.2023.109074.

[57] 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, https://doi.org/10.1016/S1053-4822(98)90007-9.

[58] Rosseel Y. [2012], An R Package for structural equation modeling, *Journal of Statistical Software* 48(2): 1–36, https://doi.org/10.18637/jss.v048.i02.

[59] 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.

[60] 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, https://doi.org/10.1016/j.emj.2016.06.002.

[61] Sharma A., Bhatnagar J. [2017], Talent Analytics: A strategic tool for talent management outcomes, *Indian Journal of Industrial Relations* 52(3): 515–527, https://www.jstor.org/stable/26536413.

[62] Sheehan M., Garavan T. [2022], High-performance work practices and labour productivity: a six wave longitudinal study of UK manufacturing and service SMEs, *The International Journal of Human Resource Management* 33(16): 3353–3386, DOI: 10.1080/09585192.2021.2005658.

[63] Sparrow P. [2019], A historical analysis of critiques in the talent management debate, *BRQ Business Research Quarterly* 22(3): 160–170, https://doi.org/10.1016/j.brq.2019.05.001.

[64] Stor M. [2014], Reconceptualizing strategic international human resource management in the pursuit of MNC sustainable competitive advantage, *Human Resource Management* 6(101): 11–31.

[65] 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.

[66] Stor M. [2023a], *Human resources management in multinational companies: A Central European perspective*, Routledge, Taylor & Francis Group, New York–London.

[67] Stor M. [2023b], 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, https://doi.org/10.7172/1644-9584.99.4.

[68] Stor M., Haromszeki Ł. [2021], Talent management and the financial results of the foreign subsidiaries of Polish MNCs – Empirical research findings, *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie/Cracow Review of Economics and Management* 3(993): 27–44.

[69] Tarique I. (ed.) [2021], *Contemporary talent management: A research companion*, Routledge, Taylor & Francis Group, New York–London, https://doi.org/10.4324/9781003182788.

[70] Thunnissen M., Boselie P., Fruytier B. [2013], Talent management and the relevance of context: Towards a pluralistic approach, *Human Resource Management Review* 23(4): 326–336, https://doi.org/10.1016/j.hrmr.2013.05.004.

[71] Vaiman V., Cascio W., Collings D., Swider B. [2021], The shifting boundaries of talent management, *Human Resource Management* 60(2): 253–257, https://doi.org/10.1002/hrm.22050.

[72] Vaiman V., Collings D.G., Scullion H. [2017], Contextualising talent management, *Journal of Organizational Effectiveness* 4(4): 294–297, https://doi.org/10.1108/JOEPP-12-2017-070.

[73] Vardi S., Collings D.G. [2023], What's in a name? Talent: A review and research agenda, *Human Resource Management Journal* 33(3): 660–682, https://doi.org/10.1111/1748-8583.12500.

[74] Venkatraman N., Ramanujam V. [1986], Measurement of business performance in strategy research: A comparison of approaches, *The Academy of Management Review* 11(4): 801–814, https://doi.org/10.2307/258398.

THE IMPACT OF ORGANIZATIONAL TALENT MANAGEMENT ON COMPANY PERFORMANCE RESULTS: THE MEDIATING ROLE OF HRM OUTCOMES IN MNCs HEADQUARTERED IN CENTRAL EUROPE

Abstract

The main goal of the article is to determine the mediating role of HRM outcomes between organizational talent management (OTM) and company performance results. Additionally, it seeks to establish any identifiable during the pre-pandemic and pandemic periods within the HQs and foreign subsidiaries of MNCs. The empirical research involved 200 MNCs headquartered in Central Europe. An innovative methodical solution was used in the research. Namely, to capture the actual relations among the studied variables, the raw data were aligned with the efficiency index (EI). To verify the research hypotheses and assess the mediating effects, the study employed Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings show that the HRM outcomes positively mediate the relationships between OTM and the company performance results, specifically in finance, quality, and innovativeness. During the pandemic, this mediating effect is stronger than in the pre-pandemic time.

Keywords: organizational talent management, MNC, HRM, company performance, finance, innovativeness, quality, Central Europe, crisis, efficiency

JEL classification codes: M12, L25, M16

WPŁYW ZARZĄDZANIA TALENTAMI ORGANIZACYJNYMI NA WYNIKI PRZEDSIĘBIORSTWA: MEDIACYJNA ROLA WYNIKÓW HRM W PMN Z SIEDZIBĄ W EUROPIE ŚRODKOWEJ

Streszczenie

Głównym celem artykułu jest określenie pośredniczącej roli wyników HRM w relacjach między zarządzaniem talentami organizacyjnymi (OTM) a wynikami przedsiębiorstwa, a także ustalenie, czy w tym zakresie istnieją jakieś identyfikowalne prawidłowości w okresie przedpandemicznym i pandemicznym w centralach oraz zagranicznych jednostkach przedsiębiorstw międzynarodowych (PMN). Badania empiryczne objęły 200 PMN z siedzibą

w Europie Środkowej. W badaniach zastosowano innowacyjne rozwiązanie metodyczne. Otóż, aby uchwycić rzeczywiste relacje między badanymi zmiennymi, surowe dane w zmiennych zostały skorygowane za pomocą wskaźnika efektywności (WE). Do weryfikacji hipotez badawczych i oceny efektów pośredniczących wykorzystano modelowanie równań strukturalnych (PLS-SEM). Rezultaty badań pokazują, że wyniki HRM pozytywnie mediują relacje między OTM a wynikami przedsiębiorstwa w zakresie finansów, jakości i innowacyjności. W czasie pandemii ten efekt mediacyjny jest silniejszy niż w okresie przedpandemicznym.

Słowa kluczowe: zarządzanie talentami w organizacji, przedsiębiorstwo międzynarodowe, ZZL, wyniki przedsiębiorstwa, finanse, innowacyjność, jakość, Europa Środkowa, kryzys, efektywność

Kody klasyfikacji JEL: M12, L25, M16