

# 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

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## Abstract

**Purpose:** 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 employee performance appraisal (EPA) and company performance results and to establish whether there are any identifiable regularities in this scope in four specific contexts, i.e. the pre-pandemic and pandemic periods of COVID-19 in the HQs and foreign subsidiaries of MNCs.

**Design/methodology/approach:** The empirical research included 200 MNCs headquartered in Central Europe. To capture the actual relations between the variables under study, the raw data in the variables were adjusted with the efficiency index (EI), which is a novelty in this type of research. The Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to verify the research hypotheses and assess the mediating effects.

**Findings:** EPA had a positive effect on results in HRM, finance, innovativeness and quality, both in the pre-pandemic and pandemic periods, although this effect was not always statistically significant. Furthermore, the company's performance results in HRM mediate positively the relationships between EPA and the other three categories of company performance results, regardless of the organizational level (HQs' or subsidiaries') and time period under consideration. Additionally, during the pandemic, the company's performance results in HRM mediate the relationships between EPA and the company's performance results in innovativeness stronger than in the pre-pandemic time, both at the HQs and local subsidiaries. This suggests that the EPA used such solutions in conjunction with other HRM subfunctions that stimulated entrepreneurial, creative and innovative behavior of employees in such a way that organizations could achieve better innovation results during the crisis than before it.

**Research limitations/implications:** The study has some limitations, including the research sample's structure, not fully representing the general population. Only HQs respondents were asked about perfor-

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mance results in foreign subsidiaries, excluding local informants. The qualitative benchmarking method used is problematic, relying on comparisons instead of objective measures. Furthermore, the analysis did not consider potential differences in economic, legal, or social conditions among the various countries where foreign subsidiaries were located.

**Originality/value:** In addition to confirming the results of some other studies, the article also provides new knowledge. It determines the mediating role of HRM outcomes in the relationship between EPA and company performance results in finance, innovativeness, and quality. Moreover, it identifies certain regularities in the four studied contexts, which is a novelty in this type of research. It also uses an innovative approach to including employee KPIs as the efficiency index in analyzing the relationships between the variables under study.

**Keywords:** employee performance appraisal, MNC, HRM, performance, finance, innovativeness, quality.

**JEL:** M12, L25, M16

## Wpływ oceny pracowniczej na wyniki przedsiębiorstwa – mediacyjna rola rezultatów ZZL przy nowatorskim zastosowaniu wskaźnika efektywności

### Streszczenie

**Cel:** głównym celem artykułu, utożsamianym z głównym problemem badawczym, jest określenie mediacyjnej roli rezultatów ZZL w relacjach między oceną pracowniczą (OP) a wynikami przedsiębiorstwa oraz ustalenie czy występują w tym zakresie identyfikowalne prawidłowości w czterech specyficznych kontekstach, tj. w okresie przedpandemicznym i pandemicznym COVID-19 oraz w centralach i jednostkach przedsiębiorstw międzynarodowych.

**Metodologia:** badanie empiryczne objęło 200 przedsiębiorstw międzynarodowych z siedzibą w Europie Środkowej. Aby uchwycić faktyczne relacje między badanymi zmiennymi, surowe dane w zmiennych skorygowano o wskaźnik efektywności (EI), który jest nowością w tego typu badaniach. Do weryfikacji hipotez badawczych i oceny efektów pośredniczących wykorzystano modelowanie równań strukturalnych metodą cząstkowych najmniejszych kwadratów (PLS-SEM).

**Wyniki:** OP pozytywnie wpłynęła na wyniki w zakresie ZZL, finansów, innowacyjności i jakości, zarówno w okresie przedpandemicznym, jak i pandemicznym, choć efekt ten nie zawsze był istotny statystycznie. Co więcej, wyniki firmy w zakresie ZZL pozytywnie pośredniczą w relacjach między OP a pozostałymi trzema kategoriami wyników przedsiębiorstwa, niezależnie od poziomu organizacyjnego (centrali lub jednostki zagranicznej) i rozważanego okresu czasu. Dodatkowo w czasie pandemii wyniki w ZZL pośredniczą w relacjach między OP a wynikami przedsiębiorstwa w innowacyjności silniejszej niż przed pandemią, zarówno w centrali, jak i jednostkach zagranicznych. Sugeruje to, że w OP stosowano takie rozwiązania w połączeniu z innymi subfunkcjami ZZL, które stymulowały przedsiębiorcze, kreatywne i innowacyjne zachowania pracowników w taki sposób, że organizacje mogły osiągać lepsze wyniki innowacyjne w czasie kryzysu niż przed nim.

**Ograniczenia/implikacje badawcze:** badanie ma pewne ograniczenia, w tym strukturę próby badawczej, która nie w pełni reprezentuje populację ogólną. Tylko respondenci centrali zostali zapytani o wyniki w zagranicznych spółkach zależnych, z wyłączeniem lokalnych informatorów. Zastosowana jakościowa metoda benchmarkingu opiera się na porównaniach, a nie na obiektywnych pomiarach. Ponadto w analizie nie uwzględniono potencjalnych różnic w warunkach ekonomicznych, prawnych czy społecznych pomiędzy różnymi krajami, w których zlokalizowane były jednostki zagraniczne.

**Oryginalność/wartość:** oprócz potwierdzenia wyników kilku innych badań, artykuł dostarcza również nowej wiedzy. Określa pośredniczącą rolę wyników ZZL w relacji między OP a wynikami organizacji

w zakresie finansów, innowacyjności i jakości. Ponadto identyfikuje pewne prawidłowości w czterech badanych kontekstach, co jest nowością w tego typu badaniach. Wykorzystuje również nowatorskie podejście do uwzględnienia KPI pracowników jako wskaźnika efektywności w analizie zależności pomiędzy badanymi zmiennymi.

**Słowa kluczowe:** ocena pracownicza, przedsiębiorstwo międzynarodowe, ZYL, wyniki przedsiębiorstwa, finanse, innowacyjność, jakość.

## 1. Introduction

The relationship between company performance and human resources management (HRM) practices has attracted ongoing research interest for several decades (see, e.g., Becker & Gerhart, 1996; Stor, 2023), which has led to the confirmation of many positive relationships between these variables (Cascio et al., 2019). A characteristic feature of this type of research is, above all, the adoption by researchers of various concepts regarding the cause-and-effect relationships between various categories of organizational performance and HRM activities (Pattnaik & Sahoo, 2020). Moreover, some studies consider the overall synergistic impact of the HRM function on these categories, while others focus on the individual types of HRM activities (Boon et al., 2019; Wood, 2021), also called HRM subfunctions.

In recent years, however, more and more importance has been attached to the contextualization of conducted research, as this enables a more accurate interpretation of its results (Garengo et al., 2022). In addition to a broader, context-centric analysis of the relationship between HRM and company performance (Farndale & Paauwe, 2018), in multinational companies (MNCs), a specific distinction is postulated between the context of the headquarters (HQs) and its foreign subsidiaries (Meyer et al., 2011). A review of the literature on contextual research also leads to the conclusion that the context of the crisis is rarely of interest, and if it is recognized, it usually concerns the cases of individual companies and their own stories or circumstances, and there are few studies devoted to the context of a more global nature of the crisis (Cooke et al., 2021) in which both the HQs of MNCs and their foreign subsidiaries are included. Therefore, it can be said that this is a specific **research gap**.

In response to the identified research gap, the article focuses on the effect of employee performance appraisal (EPA) as one of HRM subfunctions on the company's performance results. This effect is considered in four types of contexts, i.e. in the HQs of MNCs in the pre-pandemic and pandemic periods of COVID-19 and in foreign subsidiaries of these MNCs also in the pre-pandemic and pandemic periods. 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 EPA 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.

To solve this problem, **empirical research** was carried out in MNCs headquartered in Central Europe, **the main goal** of which was to identify, analyze and diagnose the relationship between the above-mentioned variables. The value of the research findings is multidimensional. On the one hand, they confirm the results of other studies, but on the other hand, they also bring new added value. Namely, they determine the mediating role of HRM outcomes in the relationship between EPA and company performance results in finance, innovativeness, and quality. Moreover, they identify certain regularities in the four studied contexts, which constitutes a novelty that this research brings to the discipline and practice of management. In addition, the data analysis used an innovative approach to taking into account employee key performance indicators (KPIs) as the efficiency index in the analysis of the relationships between the variables under study. From a practical point of view, it can be concluded that a properly constructed employee performance appraisal appropriately linked to other HRM subfunctions may contribute to stimulating entrepreneurial behaviors of employees, supporting the organization in difficult times of crisis. In the presented research, it was particularly visible in the field of innovation.

The structure of this article is as follows. At the beginning, the main theoretical assumptions are outlined, based on a concise review of the literature. Then, the methodics of the conducted empirical research and its findings are presented. The last part summarizes the research results and discusses the most important implications for management science and practice.

## 2. The Theoretical Framework for the Study

In the literature on the subject, EPA is defined in various ways. Some authors treat this as an element of performance management (Curzi et al., 2020). In this view, EPA relies only on annual appraisal, while performance management is defined as a continuous process of identifying, measuring and developing the performance of individuals and teams and aligning their performance with the organization's goals throughout the year (Aguinis, 2013). However, other scholars define EPA in a way that includes a broader set of activities. In this approach, EPA is defined as a system by which an organization provides feedback to employees on their performance and which is necessary to improve individual performance (Garengo et al., 2022). In this view, it is assumed that the system itself is a set of specific elements as well as relationships and connections between these elements. This set can include such elements as precisely determined goals of EPA, its participants (appraisees and appraisers), objects of appraisal, its methods, techniques, instruments, criteria, frequency, and both procedure of conduct and appealing

(grievance) as well as consequences (relations with other HRM elements, i.e. compensation, training, promotion) (Stor, 2012b). At the same time, it is emphasized that each EPA system may have different dimensions and determinants in particular organizations (Bayo-Moriones et al., 2020) and its effectiveness can be contingent on the management's intended purpose connected with other subfunctions of HRM (Neher & Maley, 2019) or other organizational utility needs (Iqbal et al., 2019) in which EPA may be a formal element of the management control system (Kochalski & Łuczak-Trąpczyńska, 2017). In this article, it is assumed that EPA covers activities based on specific procedures that aim for collecting, comparing, transferring, updating, and utilizing the information received from employees and about employees to determine their qualities and work results, as well as their potential abilities and capabilities which are useful in the organization and are currently identifiable or will be developed in a certain future (Stor, 2012b).

The research results so far prove that EPA can affect organizational performance (Guest et al., 2003; DeNisi et al., 2017; Houldsworth et al., 2021) and can be even treated as a predictor of this performance (Williams & O'Boyle, 2008; Ringle et al., 2020). At this point, it is worth explaining that company performance can be considered in various areas of its operation, e.g. quality of products and services (Trąpczyński et al., 2016), market value, profitability (Pattnaik & Sahoo, 2020), innovation (Brzozowski & Cucculelli, 2016; Curzi et al., 2020; Saraf et al., 2022), and separately in HRM (Garengo et al., 2022). This article adopts a four-category division of the company performance results, i.e. in the field of HRM, finance, innovativeness, and quality. Furthermore, it should be clarified that the concept of performance result is used intentionally and is not synonymous with performance. It is based on the assumption that performance result means the final outcome to which certain activities lead, whereas performance alone is the act of executing certain activities (Stor, 2023, p. 43). Therefore, this article focuses not so much on activities, but on the ultimate measure of the results of activities at a certain point in time.

Taking all this into account, one main hypothesis and four auxiliary hypotheses have been formulated to describe the relationships between EPA and company performance results as follows:

- H1: EPA may impact directly and positively on the company's performance results.
  - H<sub>1A</sub> – EPA may impact directly and positively on the company's performance results in HRM (HRM outcomes).
  - H<sub>1B</sub> – EPA may impact directly and positively on the company's performance results in finance.
  - H<sub>1C</sub> – EPA may impact directly and positively on the company's performance results in innovativeness.
  - H<sub>1D</sub> – EPA may impact directly and positively on the company's performance results in quality.

As mentioned earlier, the article assumes that EPA is one of the HRM subfunctions, and therefore it does not function in a vacuum, but in conjunction with other HRM subfunctions (Stor, 2012b; Matookchund & Steyn, 2020). This means that it can also affect the company's performance results indirectly through HRM outcomes (Garengo et al., 2022). It is worth mentioning that for the sake of terminological consistency, HRM outcomes in this context are considered equivalent to the company's performance results in HRM. However, when HRM acts as a mediator, the term outcomes is used instead of results. Concerning this indirect impact, there has been a common consensus in the strategic HRM literature over the past three decades that the focus should be on HRM systems rather than individual practices or subfunctions, as the effects of HRM practices may depend on other HRM practices (Cappelli & Conyon, 2018; Boon et al., 2019).

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

- H2: The company's performance results in HRM may mediate positively the relationships between EPA and the company's performance results.
  - H<sub>2A</sub> – The company's performance results in HRM (HRM outcomes) may mediate positively the relationships between EPA and the company's performance results in finance.
  - H<sub>2B</sub> – The company's performance results in HRM (HRM outcomes) may mediate positively the relationships between EPA and the company's performance results in innovativeness.
  - H<sub>2C</sub> – The company's performance results in HRM (HRM outcomes) may mediate positively the relationships between EPA and the company's performance results in quality.

As announced in the introduction, the main research problem concerns the relationship between the selected variables in four specific contexts, i.e. the HQs of MNCs, their foreign subsidiaries, and in both cases in the pre-pandemic and pandemic periods. When it comes to MNCs, the results of many studies led to the conclusion that conditions related to the different markets, legal and institutional environment (Mellahi et al., 2016), geographical business environment (Pawęta, 2013), national (Claus, Hand, 2009) and organizational culture (Brown et al., 2019) or the broader national context (Edwards et al., 2016) as well as other environmental factors determine their functioning and performance. All of this also has implications for EPA practices. In addition, centralization or standardization practices of HQs which are experienced or not by their foreign subsidiaries (Ratković & Orlić, 2015; Houldsworth et al., 2021) may play an important role. However, the empirical findings to date indicate that effective performance appraisals are critical to the correct implementation of corporate strategy, but there

is no “best practice” standard that applies to all MNCs (Shen, 2005). The general conclusion is even that MNCs need to pay more attention to the context of the performance appraisal results, the reactions of the ratees and the motivation of the rater, and many other issues because they are an integral part of effective EPA (DeNisi et al., 2021). From the perspective of this article, all of this justifies looking at the EPA’s practices in MNCs in the context of their HQs and foreign subsidiaries.

The article also assumes that EPA practices may have had different impacts on company performance results before and during the pandemic. The pandemic created specific conditions for the operation of organizations, which can be called crisis ones and which in themselves were characterized by high volatility and often unpredictability (Stor, 2022). This was a different situation from the one the companies experienced during the Great Recession in 2007–2010. Of course, in both cases, companies had to reduce employment due to, e.g., falling demand for their products and services (Stor, 2011; Kim & Ployhart, 2014; Trąpczyński et al., 2016; Brzozowski & Cucculelli, 2016); the COVID-19 pandemic forced organizations to adapt to a completely different mode of work, including greater use of new technologies. (Battisti et al., 2022). This was a serious challenge for EPA, if only because direct relationships with employees, their clients or managers were very limited (Tziner & Rabenu, 2021). The adaptation of employees to the new working conditions, while ensuring the organization’s continuous functioning, required entrepreneurial, creative and innovative behaviors from employees, which only to some extent resembles the years of the Great Recession (Brzozowski & Cucculelli, 2016). As research shows, during the pandemic, a special role was played by the managerial staff, whose appropriate behavior contributed to increasing the productivity of subordinate employees, often even exceeding organizational expectations (Minbaeva & Navrbjerg, 2023). The positive impact on employees took place in many ways, not only by evaluating their work, but also by using various tools related to other HRM functions (Bieńkowska et al., 2022). The pandemic has shown in a special way that in addition to financial incentives (Campello et al., 2020), organizations had to make special efforts to maintain employee well-being, which had a direct, statistically significant impact on employees’ behavior by increasing their motivation to work, satisfaction and commitment to the organization. This, in turn, improved their work efficiency, transferring to the better performance of the organization (Hamouche, 2021; Bieńkowska et al., 2022). However, these kinds of situations require a more agile (Trost, 2017) and contextual approach to EPA (Aguinis & Burgi-Tian, 2021b). In general, it can be said that organizations were more employee-centric in the pandemic compared to the pre-pandemic period, and their EPA systems had to be applied in a more flexible way in order to properly adapt to new circumstances.

All of this means that interactions between the EPA and other HRM subfunctions should be more intensive during the pandemic than before it, as it is expected to influence faster and stronger company performance results through employee performance. It is because HRM mediation in the relationship between EPA and company performance results is expected to increase the ability to respond more flexibly to emerging circumstances in the internal and external environment of the organization. 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 in the pre-pandemic and pandemic periods as follows:

- H3: During the pandemic, the company's performance results in HRM mediate the relationships between EPA and the company's performance results stronger than in the pre-pandemic time.
  - H<sub>3A</sub> – During the pandemic, the company's performance results in HRM mediate the relationships between EPA and the company's performance results in finance stronger than in the pre-pandemic time.
  - H<sub>3B</sub> – During the pandemic, the company's performance results in HRM mediate the relationships between EPA and the company's performance results in innovativeness stronger than in the pre-pandemic time.
  - H<sub>3C</sub> – During the pandemic, the company's performance results in HRM mediate the relationships between EPA and the company's performance results in quality stronger than in the pre-pandemic time.

### 3. Research Methods

#### 3.1. The Research Sample, Measures and Data Collection Method

To solve the main research problem, the following activities were undertaken, which make up the research methodics (not to be confused with methodology – see more: Stor, 2023, p. 27).

The empirical research was conducted at the end of the first quarter of 2022 and included 200 nonfinancial business entities that possessed foreign subsidiaries (hereinafter referred to as MNCs). All MNCs were headquartered in a Central European country (Poland). Based on the official data from the Statistics Poland, it can be said the research sample accounted for about 11% of the general population and in about 80% constituted its representative sample (Statistics Poland, 2022). Its structure (see Table 1), according to the type of business activity in line with NACE (the Statistical Classification of Economic Activities in the European Community), company size and type of direct foreign investment (FDI), to a large extent corresponded to the general population. When it comes to detailed data, the surveyed MNCs employed a total of 76,740 employees worldwide and had 416 foreign subsidiaries localized in 26 countries.



Table 1  
*The Research Sample Structure by Business Activity, Company Size, and Type of FDI*

Characteristics of companies		The HQs of MNCs (in %)	Foreign subsidiaries (in %)
Type of business activity	Manufacturing	87.0	55.0
	Wholesale and retail trade, repair of motor vehicles and motorcycles	7.5	39.5
	Construction	3.0	3.0
	Transport and storage	1.5	1.5
	Professional, scientific and technical activities	0.5	0.5
	In electricity, gas, steam and air conditioning supply	0.0	0.5
	Agriculture, forestry and fishing	0.5	0.0
Size of company in numbers of employed	Micro ( $\leq 9$ )	0.0	9.0
	Small (10–49)	2.0	57.5
	Medium-sized (50–249)	28.0	31.0
	Large ( $\geq 250$ )	70.0	2.5
Type of FDI	Greenfield investments	–	94.0
	Brownfields investments	–	5.5

The sample was of purposive character. In addition to the criteria listed above, two other important requirements were applied in its selection. One was that both the HQs and their foreign subsidiaries had to be predominantly owned by the Polish capital. The aim was to increase the comparability between HQs and local subsidiaries within a relatively unified ownership capital, the size of which, as research shows, determines management actions. Such a research solution implies a similar perception of the context and the same understanding of the measures used by the HQs to assess the performance of their subsidiaries in different countries (cf. Farndale et al., 2010; Schlägel & Sarstedt, 2016). This is important in comparative and benchmarking research, and this is exactly what is used in this article. The second requirement for inclusion in the research sample was a minimum four-year functioning of the organization, both the HQs and the local subsidiaries, on the market. It was assumed that this was a sufficient, though necessary, time interval to identify casual relationships between variables in the pre-pandemic and pandemic periods.

The CATI (computer aided telephone interview) method based on a structured questionnaire was used to obtain the research data. Except for a few questions about the demographics of the surveyed organizations (size, location, mode of establishment), the questionnaire consisted of single-choice questions where respondents rated selected topics on a specified scale.

Considering what the subject of the research is, the selection of respondents was also purposive. The underlying assumption was that measuring performance requires an understanding of the relationship between measures (Richard et al., 2009). Therefore, the respondents had to be people with knowledge of both the area of HRM and the results of the organization. For this reason, the respondents were: business owners (1%), managing directors/CEOs (2%), HR directors (51%), HR managers (47%), and HR business partners (1%). The respondents provided information on two periods: 1) the pre-pandemic one of 2018–2019 and 2) the pandemic time from the beginning of 2020 to the end of the first quarter of 2022, in which the interview was conducted.

Four major variables were included in the study: company performance results, the advancement level of EPA, the significance level of EPA to the company performance results and the efficiency of employees' performance. As for their measurement, the following solutions were used. The company's performance results (meaning the results of the HQs and the selected biggest local subsidiary) were evaluated by the respondents in four categories: finance, innovativeness, quality and HRM. The variable of employee performance appraisal was understood as the advancement level of EPA and was also evaluated both at the HQs' and subsidiary's level. Both variables were evaluated by the respondents in a benchmarking process: the first one by comparison to the companies of similar business profiles, and the second one by comparison to the best market practices. The self-assessment-based subjective benchmarking method was used for two primary reasons. Firstly, in cases where evaluating the performance of MNCs' subsidiaries lacks accessible objective accounting or financial market data, employing benchmarking methods based on tangible measurements becomes challenging, especially when conducting cross-country comparisons. Therefore, reliance on the subjective estimations provided by the management is often utilized instead (Schlängel & Sarstedt, 2016). Secondly, in comparison to objective metrics, these subjective measures enable key informants to have a solid understanding of the contextual dimensions of interest, enabling them to evaluate performance scores in relation to multiple factors and past performance (Richard et al., 2009).

The significance level of EPA meant how important the activities and processes within the scope of EPA were for the company performance and was evaluated at the two above-mentioned organizational levels. The efficiency of employees' performance was understood as employees' work outcomes and was assessed against the established standards in the HQs

of particular MNCs and their subsidiaries in the meaning of KPIs (key performance indicators). A 5-point scale was used for each of the variables. The scales are presented in the lower part of Table 2.

### 3.2. The Formulas Applied for Data Conversion and Statistical Methods of Data Analysis

Before analyzing the collected research data, they were converted using special formulas created for the research purposes. The idea for such a conversion emerged as a result of deeper reflections on the essence of the studied phenomena. Namely, while various studies prove the impact of HRM practices on employee performance results, which then directly contribute to company performance results (Cascio et al., 2019; Garengo et al., 2022), there are also studies that allow to observe sometimes very surprising phenomena. For example, even though employees achieve high KPIs and the company is very productive, simultaneously the same company can be unprofitable. The reason for this may be strong market competition, a decrease in consumer demand, legal and hygienic restrictions, etc., which could be observed during the Great Recession or the COVID-19 pandemic (Kim & Ployhart, 2014; Blustein et al., 2020). Of course, greater productivity means effective use of human capital resources, thanks to which the company gains the ability to generate above-average returns, but external factors may limit the possibility of using them. Nevertheless, growing productivity is an important way to develop slack resources. These resources can then be used to expand business activities, explore opportunities for new product innovations, and acquire new customers. Thus, a more efficient workforce enables the company to seek additional profit-generating opportunities (Kim & Ployhart, 2014; Cascio et al., 2019). Therefore, from the economic and managerial perspective, a greater emphasis on the effectiveness and efficiency of the actions taken and the results achieved seems to play an important role in empirical research. However, there is a difference between efficiency and effectiveness. Effectiveness is a goal-oriented measure (Ostroff & Schmitt, 1993), it concerns the extent or degree to which intended goals are achieved (Stor, 2012a), whereas efficiency refers to rates of resource usage in achieving objectives (Rogers & Wright, 1998), it is the ratio of output to input (Stor, 2012a).

The above considerations have raised some doubts as to how to capture the actual relationships between the variables studied, since there are various possibilities of creating and using slack HRM practices and slack human capital resources to generate positive results of the organization's operations. In response, the author of this article proposes an innovative solution. Namely, in order to take into account in the analytical process the actual relationships of employee performance outcomes with HRM activities and the organization's performance results, the raw data in the variables were adjusted by the efficiency index (EI). Hence, **the adjusted values of the**

**EPA variable** were calculated using the following formula (1) expressing the ratio of the advancement level of EPA to the efficiency of employees measured by the employee key performance indicator used in companies:

$$\text{Formula (1).} \quad EI\_EPA = \frac{AL\_EPA}{EKPIs}$$

Where:

EI\_EPA – Efficiency index of employee performance appraisal

AL\_EPA – Advancement level of employee performance appraisal

EKPI – Employee key performance indicators

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

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

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

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

$$\text{Formula (2}_A\text{).} \quad (EIHRM = \frac{HRM}{EKPIs})$$

Where:

EIHRM – Efficiency index of company performance results in HRM

HRM – Company performance results in HRM

EKPI – Employee key performance indicators

$$\text{Formula (2}_B\text{).} \quad (EIF = \frac{F}{EKPIs})$$

Where:

EIHRM – Efficiency index of company performance results in finance

F – Company performance results in finance

EKPI – Employee key performance indicators

**Formula (2c).** 
$$(EII = \frac{I}{EKPIs})$$

Where:

EIHRM – Efficiency index of company performance results in innovativeness

I – Company performance results in innovativeness

EKPI – Employee key performance indicators

**Formula (2d).** 
$$(EIQ = \frac{Q}{EKPIs})$$

Where:

EIHRM – Efficiency index of company performance results in quality

Q – Company performance results in quality

EKPI – Employee key performance indicators

The collected data were analyzed using descriptive, correlational and mediation statistical methods. Firstly, the normality tests of Kolmogorov–Smirnov (with Lilliefors correction) and of Shapiro-Wilk were applied. Then, the relationships between the variables were examined using Spearman’s rank coefficient. And finally, to verify the research hypotheses and assess the mediating effects, the Partial Least Squares Structural Equation Modeling (PLS-SEM) in R environment with lavaan package v. 0.6-12 (Rosseel, 2012; Savalei & Rosseel, 2022) software was applied. The choice of PLS-SEM is mainly caused by the fact that it works for non-normal distribution of variables and is the preferred method when the research goal is to develop a theory and explain variance (Hair et al., 2022), which are both cases in this study. In addition, PLS-SEM allows for analyzing the differences between the coefficient paths of different sets of variables (Picón-Berjoto et al., 2016) and has become a widely used method to study the impact of HRM practices on organizational performance (Ringle et al., 2020). Finally, it must be reminded that the correlation and path analyses were conducted on the values of the variables which were adjusted by the EI.

## 4. The Empirical Research Findings

### 4.1. The Descriptive and Correlational Statistics

As shown in Table 2, both in MNCs’ HQs and their local subsidiaries, the results obtained in the four categories of company performance were comparable to enterprises with similar business profiles both before and during the pandemic. At the same time, in both types of organizations, the performance results in HRM, finance and quality were slightly higher before the pandemic, and the results in innovativeness better during the pandemic.

As for the EPA, its significance to the performance results of HQs was slightly greater before the pandemic ( $\bar{x} = 3.60$ ) than during it ( $\bar{x} = 3.59$ ).

It was also slightly more important to the performance results of local subsidiaries before the pandemic ( $\bar{x} = 3.49$ ) than during it ( $\bar{x} = 3.43$ ). The same applies to the advancement level of EPA. Both in the HQs and local subsidiaries, it was slightly higher before the pandemic ( $\bar{x} = 3.47$ ;  $\bar{x} = 3.40$  respectively) than during it ( $\bar{x} = 3.36$ ;  $\bar{x} = 3.37$  respectively). In this context, it is somewhat surprising that the employee performance was slightly better during the pandemic, both in HQs ( $\bar{x} = 3.24$ ) and local subsidiaries ( $\bar{x} = 3.19$ ) than before the pandemic ( $\bar{x} = 3.00$ ;  $\bar{x} = 3.05$  respectively). Based on the descriptive statistics, it can be said that similar regularities are observable in both types of organizations.

In turn, the correlation analysis presented in Table 3 leads to the conclusion that all variables in both types of organization and in each of the analyzed periods are positively correlated with each other. With regard to EPA, it is worth noting that in the HQs it is slightly more strongly correlated with the results in innovation before the pandemic ( $r = .53$ ;  $p < .001$ ) than during it ( $r = .52$ ;  $p < .001$ ), whereas during the pandemic, its links are slightly stronger with results in finance ( $r = .65$ ;  $p < .001$ ), quality ( $r = .53$ ;  $p < .001$ ) and HRM ( $r = .63$ ;  $p < .001$ ) than before the pandemic ( $r = .61$ ;  $p < .001$ ;  $r = .50$ ;  $p < .001$ ;  $r = .62$ ;  $p < .001$  respectively). In the case of foreign subsidiaries, during the pandemic, all EPA correlations with the company's performance, i.e. in finance ( $r = .61$ ;  $p < .001$ ), quality ( $r = .59$ ;  $p < .001$ ), innovation ( $r = .55$ ;  $p < .001$ ) and HRM ( $r = .65$ ;  $p < .001$ ), are stronger than before it ( $r = .57$ ;  $p < .001$ ;  $r = .44$ ;  $p < .001$ ;  $r = .36$ ;  $p < .001$ ;  $r = .52$ ;  $p < .001$  respectively).

Table 2  
Descriptive Statistics for the Major Variables

Variables	HQs IN THE PRE-PANDEMIC TIME					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	200	3.92	3.0	5.0	0.37
Results in finance	200	4.03	3.0	5.0	0.32	200	3.92	3.0	5.0	0.36
Results in innovativeness	200	3.77	2.0	5.0	0.57	200	3.82	2.0	5.0	0.54
Results in quality	200	3.85	3.0	5.0	0.60	200	3.77	2.0	5.0	0.58
Employee performance in KPIs	200	3.00	2.0	4.0	0.49	200	3.24	2.0	4.0	0.53
Advancement level of EPA	200	3.47	2.0	4.0	0.57	200	3.36	2.0	4.0	0.59
Significance level of EPA	200	3.61	2.0	5.0	0.58	200	3.50	2.0	5.0	0.60

**Scales:**

- Company performance results in HRM, finance, innovativeness, quality à 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 EPA à benchmarked to the best market practices: 1 – significantly lower, 2 – lower, 3 – similar to others, 4 – higher, 5 – significantly higher;
- Significance level of EPA to the company's performance results: 1 – not important, 2 – slightly important, 3 – important, 4 – very important, 5 – of critical significance.

Table 2 – continued

Variables	FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					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	200	3.92	3.0	5.0	0.34
Results in finance	200	3.99	3.0	5.0	0.24	200	3.93	3.0	5.0	0.37
Results in innovativeness	200	3.81	2.0	5.0	0.56	200	3.90	3.0	5.0	0.50
Results in quality	200	3.81	2.0	5.0	0.57	200	3.77	3.0	5.0	0.54
Employee performance in KPIs	200	3.05	2.0	4.0	0.39	200	3.19	2.0	4.0	0.51
Advancement level of EPA	200	3.40	2.0	5.0	0.56	200	3.37	2.0	4.0	0.57
Significance level of EPA	200	3.49	2.0	5.0	0.63	200	3.43	2.0	5.0	0.64

## Scales:

- Company performance results in HRM, finance, innovativeness, quality à 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 EPA à benchmarked to the best market practices: 1 – significantly lower, 2 – lower, 3 – similar to others, 4 – higher, 5 – significantly higher;
- Significance level of EPA to the company's performance results: 1 – not important, 2 – slightly important, 3 – important, 4 – very important, 5 – of critical significance.



Table 3  
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. $\left(\frac{AL\_EPA}{EKPIs}\right)$		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. $\left(\frac{AL\_EPA}{EKPIs}\right)$
Results in finance	1.00	0.70***	0.77***	0.91***	0.61***	Results in finance	1.00	0.67***	0.75***	0.89***	0.65***
Results in quality	0.70***	1.00	0.57***	0.69***	0.50***	Results in quality	0.67***	1.00	0.65***	0.65***	0.55***
Results in innovativeness	0.77***	0.57***	1.00	0.76***	0.53***	Results in innovativeness	0.75***	0.63***	1.00	0.80***	0.52***
Results in HRM	0.91***	0.69***	0.76***	1.00	0.62***	Results in HRM	0.89***	0.65***	0.80***	1.00	0.65***
Advancement level of EPA	0.61***	0.50***	0.53***	0.62***	1.00	Advancement level of EPA	0.65***	0.53***	0.52***	0.63***	1.00
Variables	FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					Variables	FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Results in finance	1.00	0.62***	0.65***	0.90***	0.57***	Results in finance	1.00	0.69***	0.79***	0.87***	0.61***
Results in quality	0.62***	1.00	0.47***	0.61***	0.44***	Results in quality	0.69***	1.00	0.61***	0.64***	0.59***
Results in innovativeness	0.65***	0.47***	1.00	0.68***	0.36***	Results in innovativeness	0.79***	0.61***	1.00	0.84***	0.55***
Results in HRM	0.90***	0.61***	0.68***	1.00	0.52***	Results in HRM	0.87***	0.64***	0.84***	1.00	0.65***
Advancement level of EPA	0.57***	0.44***	0.36***	0.52***	1.00	Advancement level of EPA	0.61***	0.59***	0.55***	0.65***	1.00

Notes: \* Correlations significant at p < .05; \*\* Correlations significant at p < .01; \*\*\* Correlations significant at p < .001.

## 4.2. Mediation Statistics Based on PLS-SEM

The conducted path analysis leads to the conclusion that EPA directly and positively affects the company performance results in HRM (see Tables 4–6), which confirms auxiliary hypothesis  $H_{1A}$ . Moreover, both in the HQs ( $\beta = 0.63$ ;  $p < 0.001$ ) and local subsidiaries ( $\beta = 0.65$ ;  $p < 0.001$ ), this effect is stronger before the pandemic than during the pandemic (in HQs  $\beta = 0.62$ ;  $p < 0.001$ ; in local subsidiaries  $\beta = 0.52$ ;  $p < 0.001$ ).

Auxiliary hypothesis  $H_{1B}$  can also be considered confirmed because EPA has a direct and positive effect on the company performance results in finance (see Table 3). However, in the case of HQs, this effect is stronger during the pandemic ( $\beta = 0.14$ ;  $p < 0.01$ ) than before the pandemic ( $\beta = 0.08$ ;  $p < 0.05$ ). In foreign subsidiaries, it is the opposite, it is greater before the pandemic ( $\beta = 0.14$ ;  $p < 0.001$ ) than during it ( $\beta = 0.08$ ; although at  $p > 0.05$  being not statistically significant).

As for auxiliary hypothesis  $H_{1C}$ , it can be accepted to some extent. The point is that although it is possible to identify the positive direct effect of EPA on the company performance results in innovativeness, it is not statistically significant in any of the considered cases (see Table 4). Furthermore, in the HQs, it is slightly greater in the pre-pandemic period ( $\beta = 0.10$ ;  $p > 0.05$ ) compared to the pandemic period ( $\beta = 0.03$ ;  $p > 0.05$ ), whereas in foreign subsidiaries, it remains the same in both periods ( $\beta = 0.01$ ;  $p > 0.05$ ).

With a certain reservation, auxiliary hypothesis  $H_{1D}$  can be considered confirmed. Namely, as presented in Table 5, EPA directly and positively affects the company performance results in quality; however, in the case of the HQs before the pandemic, this effect is not statistically significant. Anyway, in general, both in the HQs ( $\beta = 0.20$ ;  $p < 0.01$ ) and local subsidiaries ( $\beta = 0.30$ ;  $p < 0.001$ ), this effect is stronger during the pandemic than before the pandemic (in HQs  $\beta = 0.12$ ;  $p > 0.05$ ; in local subsidiaries  $\beta = 0.17$ ;  $p < 0.05$ ).

As a result of the performed analyses, it can therefore be concluded that the main hypothesis  $H1$  is confirmed because EPA appears to have a positive effect on results in HRM, finance, innovativeness and quality, both in the pre-pandemic and pandemic periods, although this effect is not always statistically significant.

Table 4  
 Path Analysis Summary in PLS-SEM for EPA and Company Performance Results in Finance

HQs IN THE PRE-PANDEMIC TIME					HQs IN THE PANDEMIC TIME				
Variables in paths	$\beta$	Z	p	95%CI	Variables in paths	$\beta$	Z	p	95%CI
EPA → Finance	0.08	2.01	< 0.05	[0.00; 0.17]	EPA → Finance	0.14	2.76	< 0.01	[0.04; 0.24]
EPA → HRM ( $\alpha$ )	0.62	10.05	< 0.001	[0.50; 0.74]	EPA → HRM ( $\alpha$ )	0.63	11.53	< 0.001	[0.52; 0.74]
HRM → Finance	0.85	15.45	< 0.001	[0.74; 0.96]	HRM → Finance	0.80	13.51	< 0.001	[0.69; 0.92]
Mediation effect of HRM ( $\alpha\beta$ )	0.53	7.57	< 0.001	[0.39; 0.66]	Mediation effect of HRM ( $\alpha\beta$ )	0.51	8.08	< 0.001	[0.38; 0.63]
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	$\beta$	Z	p	95%CI	Variables in paths	$\beta$	Z	p	95%CI
EPA → Finance	0.14	3.63	< 0.001	[0.07; 0.22]	EPA → Finance	0.08	1.46	> 0.05	–
EPA → HRM ( $\alpha$ )	0.52	6.21	< 0.001	[0.36; 0.68]	EPA → HRM ( $\alpha$ )	0.65	10.08	< 0.001	[0.52; 0.77]
HRM → Finance	0.83	12.84	< 0.001	[0.70; 0.95]	HRM → Finance	0.82	13.16	< 0.001	[0.70; 0.94]
Mediation effect of HRM ( $\alpha\beta$ )	0.43	5.55	< 0.001	[0.28; 0.58]	Mediation effect of HRM ( $\alpha\beta$ )	0.53	8.27	< 0.001	[0.41; 0.66]

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

Table 5  
Path Analysis Summary in PLS-SEM for EPA and Company Performance Results in Innovativeness

HQs IN THE PRE-PANDEMIC TIME					HQs IN THE PANDEMIC TIME				
Variables in paths	$\beta$	Z	p	95%CI	Variables in paths	$\beta$	Z	p	95%CI
EPA $\rightarrow$ Innovativeness	0.10	1.47	> 0.05	-	EPA $\rightarrow$ Innovativeness	0.03	0.60	> 0.05	-
EPA $\rightarrow$ HRM ( $\alpha$ )	0.62	10.05	< 0.001	[0.50; 0.74]	EPA $\rightarrow$ HRM ( $\alpha$ )	0.63	11.53	< 0.001	[0.52; 0.74]
HRM $\rightarrow$ Innovativeness	0.70	10.06	< 0.001	[0.56; 0.84]	HRM $\rightarrow$ Innovativeness	0.78	11.65	< 0.001	[0.65; 0.91]
Mediation effect of HRM ( $\alpha\beta$ )	0.43	6.79	< 0.001	[0.31; 0.56]	Mediation effect of HRM ( $\alpha\beta$ )	0.49	8.24	< 0.001	[0.37; 0.61]
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	$\beta$	Z	p	95%CI	Variables in paths	$\beta$	Z	p	95%CI
EPA $\rightarrow$ Innovativeness	0.01	0.15	> 0.05	-	EPA $\rightarrow$ Innovativeness	0.01	0.19	> 0.05	-
EPA $\rightarrow$ HRM ( $\alpha$ )	0.52	6.21	< 0.001	[0.36; 0.68]	EPA $\rightarrow$ HRM ( $\alpha$ )	0.65	10.08	< 0.001	[0.52; 0.77]
HRM $\rightarrow$ Innovativeness	0.67	8.91	< 0.001	[0.52; 0.82]	HRM $\rightarrow$ Innovativeness	0.83	13.92	< 0.001	[0.71; 0.95]
Mediation effect of HRM ( $\alpha\beta$ )	0.35	5.18	< 0.001	[0.22; 0.48]	Mediation effect of HRM ( $\alpha\beta$ )	0.54	7.34	< 0.001	[0.40; 0.68]

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

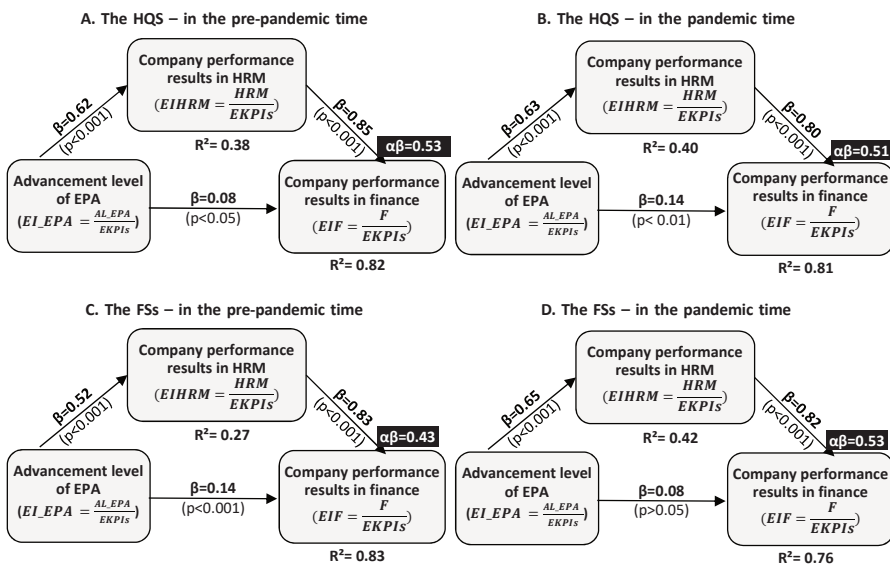
Table 6  
 Path Analysis Summary in PLS-SEM for EPA and Company Performance Results in quality

HQs IN THE PRE-PANDEMIC TIME					HQs IN THE PANDEMIC TIME				
Variables in paths	$\beta$	Z	p	95%CI	Variables in paths	$\beta$	Z	p	95%CI
EPA → Quality	2.16	1.55	> 0.05	–	EPA → Quality	2.16	2.80	< 0.01	[0.06; 0.34]
EPA → HRM ( $\alpha$ )	6.21	10.05	< 0.001	[0.50; 0.74]	EPA → HRM ( $\alpha$ )	6.21	11.53	< 0.001	[0.52; 0.74]
HRM → Quality	5.53	6.99	< 0.001	[0.44; 0.79]	HRM → Quality	5.53	5.80	< 0.001	[0.35; 0.70]
Mediation effect of HRM ( $\alpha\beta$ )	4.78	5.13	< 0.001	[0.23; 0.53]	Mediation effect of HRM ( $\alpha\beta$ )	4.78	5.17	< 0.001	[0.20; 0.45]
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME					FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME				
Variables in paths	$\beta$	Z	p	95%CI	Variables in paths	$\beta$	Z	p	95%CI
EPA → Quality	0.17	2.16	< 0.05	[0.02; 0.32]	EPA → Quality	0.30	4.02	< 0.001	[0.15; 0.45]
EPA → HRM ( $\alpha$ )	0.52	6.21	< 0.001	[0.36; 0.68]	EPA → HRM ( $\alpha$ )	0.65	10.08	< 0.001	[0.52; 0.77]
HRM → Quality	0.52	5.53	< 0.001	[0.34; 0.71]	HRM → Quality	0.44	4.95	< 0.001	[0.27; 0.62]
Mediation effect of HRM ( $\alpha\beta$ )	0.27	4.78	< 0.001	[0.16; 0.38]	Mediation effect of HRM ( $\alpha\beta$ )	0.29	4.95	< 0.001	[0.17; 0.40]

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

Further mediation analyses reveal that the company's performance results in HRM mediate positively the relationships between EPA and the company's performance results in finance ( $H_{2A}$ ) in the HQs both in the pre-pandemic ( $\beta = 0.85$ ;  $p < 0.001$ ) and pandemic period ( $\beta = 0.80$ ;  $p < 0.001$ ), and the indirect mediation effect is slightly stronger ( $H_{3A}$ ) in the pre-pandemic ( $\alpha\beta = 0.53$ ;  $p < 0.001$ ) than in the pandemic time ( $\alpha\beta = 0.51$ ;  $p < 0.001$ ). The relationships between EPA and the company's performance results in finance are also positively mediated by the results in HRM in foreign subsidiaries ( $H_{2A}$ ), and again, both in the pre-pandemic ( $\beta = 0.83$ ;  $p < 0.001$ ) and pandemic period ( $\beta = 0.53$ ;  $p < 0.001$ ); however, here the indirect mediation effect is stronger ( $H_{3A}$ ) in the pandemic ( $\alpha\beta = 0.53$ ;  $p < 0.001$ ) than pre-pandemic time ( $\alpha\beta = 0.43$ ;  $p < 0.001$ ). This means that auxiliary hypothesis  $H_{2A}$  can be accepted in its entirety, but auxiliary hypothesis  $H_{3A}$  only partially, i.e. in relation to foreign subsidiaries. The discussed phenomena are graphically presented in Figure 1.

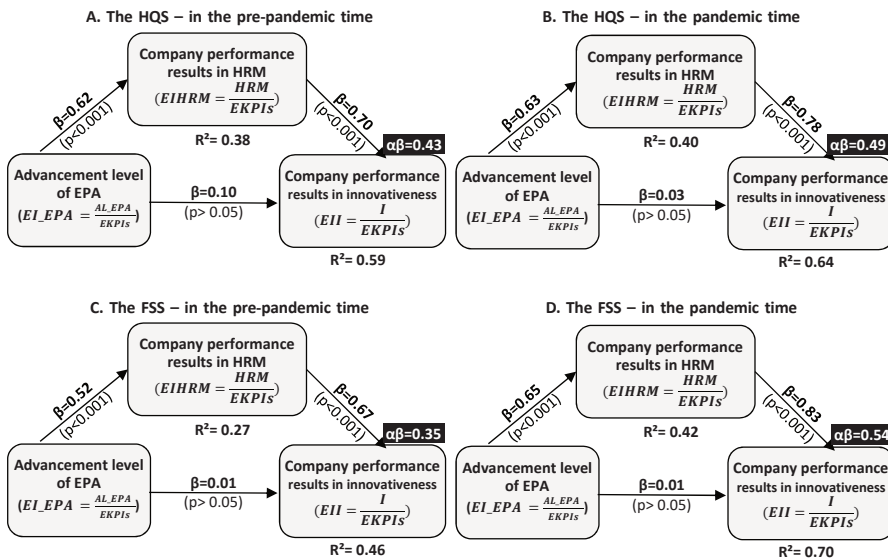
Figure 1  
The HRM Mediation Model of the Relationships Between EPA and Company Performance Results in Finance



The company's performance results in HRM also mediate positively the relationships between EPA and the company's performance results in innovativeness ( $H_{2B}$ ), both in the HQs in the pre-pandemic ( $\beta = 0.70$ ;  $p < 0.001$ ) and pandemic period ( $\beta = 0.78$ ;  $p < 0.001$ ), and the indirect mediation effect is stronger ( $H_{3B}$ ) in the pandemic ( $\alpha\beta = 0.49$ ;  $p < 0.001$ )

than pre-pandemic time ( $\alpha\beta = 0.43$ ;  $p < 0.001$ ). The relationships between EPA and the company's performance results in innovativeness are also positively mediated by the results in HRM in foreign subsidiaries ( $H_{2B}$ ), and again, both in the pre-pandemic ( $\beta = 0.67$ ;  $p < 0.001$ ) and pandemic period ( $\beta = 0.54$ ;  $p < 0.001$ ), and the indirect mediation effect is significantly stronger ( $H_{3B}$ ) in the pandemic ( $\alpha\beta = 0.54$ ;  $p < 0.001$ ) than pre-pandemic time ( $\alpha\beta = 0.35$ ;  $p < 0.001$ ). Thus, both auxiliary hypotheses  $H_{2B}$  and  $H_{3B}$  are confirmed. The discussed relationships are graphically presented in Figure 2.

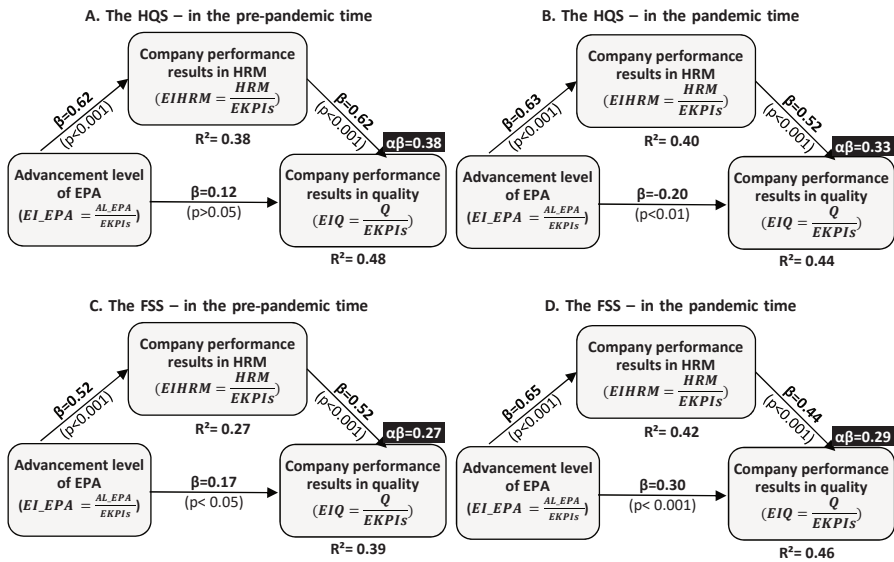
Figure 2  
The HRM Mediation Model of the Relationships Between EPA and Company Performance Results in Innovativeness



Furthermore, the company's performance results in HRM mediate positively the relationships between EPA and the company's performance results in quality ( $H_{2C}$ ) in the HQs both in the pre-pandemic ( $\beta = 0.62$ ;  $p < 0.001$ ) and pandemic period ( $\beta = 0.52$ ;  $p < 0.001$ ), and the indirect mediation effect is slightly stronger ( $H_{3C}$ ) in the pre-pandemic ( $\alpha\beta = 0.38$ ;  $p < 0.001$ ) than in the pandemic time ( $\alpha\beta = 0.33$ ;  $p < 0.001$ ). The relationships between EPA and the company's performance results in quality are also positively mediated by the results in HRM in the foreign subsidiaries ( $H_{2C}$ ), and again, both in the pre-pandemic ( $\beta = 0.52$ ;  $p < 0.001$ ) and pandemic period ( $\beta = 0.44$ ;  $p < 0.001$ ); however, here the indirect mediation effect is stronger ( $H_{3C}$ ) in the pandemic ( $\alpha\beta = 0.29$ ;  $p < 0.001$ ) than pre-

pandemic time ( $\alpha\beta = 0.27$ ;  $p < 0.001$ ). This leads to the confirmation of auxiliary hypothesis  $H_{2C}$  in full, but auxiliary hypothesis  $H_{3C}$  only partially, i.e. with regard to foreign subsidiaries. The discussed phenomena are graphically presented in Figure 3.

Figure 3  
The HRM Mediation Model of the Relationships Between EPA and Company Performance Results in Quality



Summing up the results of the mediation analyses, it can be concluded that they allowed for a positive verification of the main hypothesis H2. Namely, it turns out that the company’s performance results in HRM positively mediate the relationship between EPA and the other three categories of company performance, regardless of the type of the organization (HQs or foreign subsidiaries) and the time period considered. This hypothesis confirmation is based on the confirmation of three auxiliary hypotheses, i.e.  $H_{2A}$ ,  $H_{2B}$ , and  $H_{2C}$ . As for the main hypothesis H3, it can be considered only partially confirmed. This is due to the fact that while auxiliary hypothesis  $H_{3B}$  was positively verified in terms of the studied phenomena both for the HQs and foreign subsidiaries, hypotheses  $H_{3A}$  and  $H_{3C}$  are true only for foreign entities.

The explanatory capability of all the models is presented in Table 7. Generally speaking, the amount of variance explained in the company performance results ranges from moderate to strong (Ringle et al., 2020; Hair et al., 2022). In the HQs of MNCs, the results in finance ( $R^2 = 0.82$ )



and quality ( $R^2 = 0.48$ ) are slightly better explained in the pre-pandemic time than in the pandemic period, whereas the results in HRM ( $R^2 = 0.40$ ) and innovativeness ( $R^2 = 0.64$ ) are better explained in the pandemic. It looks a bit different in the case of their foreign subsidiaries. Of the four categories of company performance results, only financial results are better explained in the pre-pandemic times ( $R^2 = 0.83$ ), while the others, i.e. results in HRM ( $R^2 = 0.42$ ), innovativeness ( $R^2 = 0.70$ ), and quality ( $R^2 = 0.46$ ), are better explained in the pandemic times.

Table 7

*The Explanatory Capabilities of the HRM Mediation Models of the Relationships Between EPA and Company Performance Results*

HQs IN THE PRE-PANDEMIC TIME		HQs IN THE PANDEMIC TIME	
Variables in models	R <sup>2</sup>	Variable in models	R <sup>2</sup>
Results in HRM	0.38	Results in HRM	0.40
Results in finance	0.82	Results in finance	0.81
Results in innovativeness	0.59	Results in innovativeness	0.64
Results in Quality	0.48	Results in Quality	0.44
FOREIGN SUBSIDIARIES IN THE PRE-PANDEMIC TIME		FOREIGN SUBSIDIARIES IN THE PANDEMIC TIME	
Variable in models	R <sup>2</sup>	Variable in models	R <sup>2</sup>
Results in HRM	0.27	Results in HRM	0.42
Results in finance	0.83	Results in finance	0.76
Results in Innovativeness	0.46	Results in Innovativeness	0.70
Results in Quality	0.39	Results in Quality	0.46

*Interpretation:*

R<sup>2</sup> – the amount of variance explained in the construct (very weak  $\geq 0.1$ , weak  $\geq 0.19$ ; moderate  $\geq 0.33$ , substantial  $\geq 0.67$ , strong  $\geq 0.75$ ).

## 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 EPA 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 results presented in the article allow for concluding that this goal can be considered achieved.

In conclusion, we can say that some similar and some different regularities have been observed in the HQs and their local subsidiaries. When it comes to similar regularities, compared to the pre-pandemic period, the company performance results in innovativeness in both types of organizations were

slightly higher during the pandemic and were accompanied by slightly better results in employee performance than before the pandemic. Considering the structure of the research sample, the identification of this phenomenon brings a certain novelty to management science. The explanation for this situation may be the special impact of the managerial staff on subordinate employees, as the former had a flexible approach to employee appraisal and at the same time – as other studies show – tried to properly adapt the methods of influencing subordinates to the new pandemic conditions, and thanks to this, the results obtained by employees often exceeded the assumed expectations in this regard (Minbaeva & Navrbjerg, 2023). This was particularly evident in innovation, which in these difficult circumstances requires various types of entrepreneurial behavior to ensure the smooth functioning of the organization (cf. Curzi et al., 2019). Additionally, mutual trust between evaluators and evaluated individuals could have played a significant role, accompanying the flexibility in the appraisal process. This means that in crisis situations, such as the COVID-19 pandemic, fulfilling assigned tasks sometimes requires increased empowerment and employee autonomy. This, in turn, suggests that there must be trust that employees will not only carry out their work with due diligence but will also seek innovative solutions for organizational functioning. The importance of trust in shaping the relationship between employee performance appraisal (EPA) and organizational outcomes is also supported by other studies, albeit not specifically focused on crisis situations. Therefore, it seems that an important regularity has been identified here (Baird et al., 2020).

In general, during the pandemic, the relationships between the advancement level of EPA and the results in HRM, finance, innovativeness, and quality were also stronger during the pandemic. A certain exception here is the relationship with the results in innovativeness at the HQs, which was slightly stronger before the pandemic, but this is not a significant difference. As for other regularities, it should be noted that during the pandemic, both in HQs and local subsidiaries, HRM outcomes mediated more strongly the relationship between EPA and company performance in innovativeness. This may suggest more employee-centric activities undertaken by the organizations and their managerial staff in the pandemic time to improve the effectiveness of employee performance management and this demanded better configuration of EPA with other HRM subfunctions (cf. Iqbal et al., 2019; Neher & Maley, 2019).

Research from other authors shows that during the COVID-19 crisis, many organizations reduced or discontinued employee performance appraisal (EPA) practices. However, this study demonstrates the critical importance of continuing to measure performance, particularly in uncertain times when employees depend on leaders for guidance. Performance management plays a vital role in communicating the company's strategic direction, gathering valuable data, delivering feedback, managing legal risks, and retaining top

talent (cf. Aguinis & Burgi-Tian, 2021a), although, as evident, it requires certain connections with other HRM subfunctions to achieve the intended outcome.

As for different regularities, in the HQs, HRM outcomes more strongly mediated the relationship between EPA and financial results and quality results in the pre-pandemic period and in local foreign subsidiaries during the pandemic. In other words, during the pandemic, in the case of foreign subsidiaries, HRM outcomes always more strongly mediated the relationships between EPA in all categories of company performance, and in the case of HQs, such stronger mediation appears only in relation to performance results in innovation. This leads to the conclusion that in order to manage employees as effective strategic assets, an organization should use EPA to align HRM with company values and strategic objectives. Thus, EPA should be configured as an organic system that can evolve and adapt to the changing business environment through adaptation and adjustment processes (cf. Garengo et al., 2022).

In addition, it is worth noting that respondents declared that the significance of EPA for the company's performance results was slightly greater in the HQs than in their local subsidiaries, both in the pre-pandemic and pandemic period. However, the advancement level of EPA before the pandemic was higher in the HQs than in local subsidiaries, and during the pandemic it was the other way around. Despite this, employee performance before the pandemic was better in local subsidiaries, and during the pandemic in the HQs. This, therefore, confirms the results of other studies which indicate that the analysis of the effectiveness of EPA must always take into account a specific context (cf. Claus & Hand, 2009). It can therefore be said that the research results presented in this article confirm the need to consider separately the context of the HQs and their foreign subsidiaries (cf. Edwards et al., 2016) as well as the specific contextual conditions distinguishing the period of crisis (here the pandemic) from the non-crisis period (here before the pandemic) (cf. Kim & Ployhart, 2014; Brzozowski & Cucculelli, 2016), which allows for a better understanding of various phenomena related to EPA (DeNisi et al., 2021).

To sum up, it can be stated that the presented research results make a certain contribution to the management science. On the one hand, they confirm the results of other studies on the positive impact of HRM on organizational performance results and the need for a holistic approach to this impact of HRM, and not its individual subfunctions, as the effects of HRM practices are likely to depend on other practices within the HRM system (cf. Boon et al., 2019). Moreover, they also prove that effective EPA is critical in implementing business strategy correctly, but there is no "best practice" standard that applies to all MNCs (cf. Shen, 2005). On the other hand, the presented research findings also bring new added value. Namely, they determine the mediating role of HRM outcomes in the relationship between EPA and company performance results in finance,

innovativeness, and quality. Moreover, they identify certain regularities in the four studied contexts, which constitutes a novelty that this research brings to the discipline and practice of management. In terms of research methodics, it can be said that the applied self-benchmarking method of an organization can be successfully used in comparative studies, especially when the research involves economic entities from a large number of countries. Regarding the methodics, it is also worth noting that the data analysis used an innovative approach to taking into account employee key performance indicators (KPIs) as the efficiency index in the analysis of the relationships between the variables under study. This, in turn, allowed capturing the actual relations between the variables under study.

The conducted study has some limitations. They include the structure of the research sample, which does not fully reflect the general population, as mentioned in the section on research methodics. Another drawback is certainly the fact that only respondents from the HQs were asked about the performance results in foreign subsidiaries, and not informants from their local subsidiaries. Certainly, the method of qualitative benchmarking used in the survey is also a problem. Instead of hard measures to assess the organization's performance results and the advancement level of EPA, the respondents were only asked to make this assessment by comparison with other businesses on the market. In addition, it should be noted that while all the HQs of MNCs were located in one Central European country, which means that they operated in similar economic, legal or social conditions, their foreign subsidiaries were located in several dozen countries, and when analyzing these data, potential differences were not taken into account.

Finally, from a practical point of view, it can be said that the conducted research also has a certain practical value. Its findings show that a correctly constructed employee appraisal properly linked to other HRM subfunctions can contribute to stimulating entrepreneurial behavior of employees (cf. Curzi et al., 2019), supporting the organization in difficult times of crisis. In the presented research, it was particularly visible in the area of innovation. Management practitioners can benefit from the research findings in other ways. First, the study highlights the importance of measuring employee performance, especially during uncertain or crisis times, for strategic communication, data gathering, feedback delivery, risk management, and talent retention. Second, effective implementation of EPA can improve company performance. Third, focusing on improving HRM performance indirectly enhances finance, innovativeness, and quality. Practitioners can reinforce the significance of performance appraisal, enhance EPA effectiveness, adapt approaches during crises, align HRM outcomes with EPA objectives, prioritize trust-building, and maintain performance management practices in challenging circumstances. These findings provide valuable guidance for enhancing organizational performance in uncertain business environments.

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