

The role of HR indicators on performance of Czech companies: A multi-sector perspective

Jana ZLÁMALOVÁ¹, Zuhair ABBAS^{2*}

^{1,2}Ph.D. Candidate, Tomas Bata University in Zlin, Department of Business Administration at Faculty of Management and Economics, Zlin, Czech Republic,
Email: jzlamalova@utb.cz¹, abbas@utb.cz²

*Corresponding Author

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Abstract

Rooted in the perspective of role theory, the use of human resource indicators to improve performance is a hugely important area in the HRM field, but most of our understanding on this comes from prior research on large firms. Importantly, our study looks at under-researched area of HR indicators to examine the size of company and ownership structure on HR indicators and decision making comprehensively on small, medium-sized and large firms specifically in the context of Central European region such as Czech Republic. To address recent calls in the literature for an investigation of this nature, this research examined the role of size of company, ownership structure on HR indicators for organizational performance at micro level (employee perspective). Data were collected by using survey-based questionnaire from 896 managers working in the Czech companies at various sector level. Chi-square test and Z-score of P-value were used. The results demonstrate that size of company and ownership structure are the key drivers of HR indicators at the workplace. More importantly, our research also suggests that ownership structure positively influences decision making by using HR indicators. To date, there is fairly limited has been done on HR indicators with respect to size of company and ownership structure in the Central European region specially in Czech Companies. Importantly, this research contributes to the nascent literature that positions HR indicators as an effect mechanism at the organizational setting at different sectoral level. Our research also suggest measures of HR indicators and present implications for both research and managerial practice.

Keywords: Indicators, Human resources, Ownership structure, Size of company, performance

Introduction

The academic literature has lagged far behind practitioner interest in human resource indicators as competitive strategy. Over the past decades, there has been growing debate in human resource management research about the impact of human resource (HR) indicators on improving employee and organizational performance (Chang & Chi, 2007). Theoretically, previous research argued that human resources indicators could be the source of sustainable competitive advantage for organizations (Gabčanová, 2012). Similarly, recent research has suggested that due to changing business dynamics in the industry, HR indicators are primary drivers for achieving business performance at small, medium, and large-sized firms (Benbrahim et al., 2017). In contemporary usage, there is an increasing consensus that HR indicators promote competitiveness in the workplace (Aris et al., 2019). Similarly, prior research indicates that aspects of the human resource scorecard serve as essential predictors of organizational performance. (Huselid et al., 2005).

Past research has generally accepted that human resource management (HRM) can effectively succeed in public and private organizations (Huselid, 1995; Ichniowski et al., 1997; Carter and Robinson, 2000; Boxall, 2003; Purcell, 2004). Nevertheless, human resource managers believe that the existing ratings are neither a valid indicator of human resource performance nor a viable tool for strengthening human resource

management. Consequently, human resource indicators are considered a burden on human resource departments rather than measuring (or incentive for) organizational performance (Givan, 2005). For this reason, there remains a need to understand the usefulness of HR indicators for managers while decision-making to move beyond business excellence.

Despite the growing debate among scholars regarding HR performance indicators (Alghamdi et al., 2022; Zámečník, 2015; Iveta, 2012). Significantly, HR indicators are dramatically increased in both manufacturing and service sectors around the globe (Gagarinskaia et al., 2019; Florczyk, 2014; Klazinga et al., 2011). However, the actual influence of HR indicators on performance shows mixed results in the existing literature (Lewis et al., 2007; Stefanovicz et al., 2014). Past research revealed relatively limited investigation on HR indicators and decision-making about the size of the employees and ownership structure (Zámečník, 2015). Importantly, this research focuses on examining the mechanisms such as the size of the company and ownership structure on HR indicators to get a better understanding and extends the existing literature.

Given the importance of HR indicators in multiple contexts, this is one of the emerging fields of research such in the United Kingdom (Givan et al., 2005), Namibia in Southwest Africa (McQuide et al., 2013), Czech Republic (Gabčanová, 2012; Zámečník, 2015) Iran (Bahadori et al., 2010) and Russia (Ibatova 2018). In the mainstream context, the human resource

indicators are concerned with improving organizational performance and competitiveness in the workplace (Aris et al., 2019). Hence, another emerging challenge for companies is attracting, retaining, and developing such high professional and skilled human capital to survive organizations (Bamber et al., 2004). According to the management literature, the economies of Central and Eastern Europe did not start doing business until the 1990s, and the local business environment is different from that in the West. Past research by Albu and Mustapa (2013), the application of "Western practices" to Eastern European companies brought utterly different results than expected. However, relatively few studies have examined HR indicators in companies in the Czech Republic.

The objectives of this research are threefold. First, past studies revealed theoretically compelling and thus warrant further empirical investigation on HR indicators in firms at different sectoral-level (Iveta, 2012; Harris & Mongiello, 2001). By responding to calls as mentioned above, this research examines the effect of HR indicators performance of the Czech firms at different sectoral-level. Surprisingly, there is fairly limited research on HR indicators at the sectoral level. In this way, our research contributes to the nascent literature that positions HR indicators as an effective mechanism for firms to achieve business excellence to survive in the industry. Second, this research investigated the influence of the size of the company and ownership structure on HR indicator performance to grasp better the relationship between two essential aspects that contribute to the outcomes of this research. Indeed, Zámečník, (2015) explicitly calls for further empirical work on HR indicators such as the size of employees and ownership structure to view the dual-impact perspectives on firm performance in different settings. Surprisingly, the field of HRM has been criticized for its absence of HR indicators research to provide practical measurement tools for companies to improve their employee and economic performance (Townley et al., 2003). Third, the present research examines the significance of HR indicators in the context of different sectors of the Czech Republic. Despite its value and several calls for investigation (Castley, 1996; Bamber et al., 2004). Hence, this research not only responds to these calls for research but also advances our understanding of the significance and effect of human resource indicators in various sectors of the Czech Republic. In our research, we posed three research questions to address a research gap.

How does size of the company influence on HR indicators?
 What extent ownership structure effect on HR indicators?
 How does ownership structure affect the decision-makers at the workplace?

2.0 Literature review

2.1 Role theory perspective

Since the early 1930s, scholars in human resource management, psychology, social psychology, sociology and organizational behavior have successfully applied role theory (Biddle, 2013; Solomon et al., 1985; Wang & Niu, 2010). The primary premise of role theory is that people have distinct roles in their daily lives (Biddle, 1986). The role theory work utilizes two undiscovered schools of thought: structural-functional and symbolic-interactionist perspectives. First, from a structural-functional aspect, roles are perceived as "rules" that control a more comprehensive social system or society and impose behavioral expectations on role holders, who are often unable to change or escape such laws (Vandenberghe, Bentein, & Panaccio, 2017). Second, people's experiences in and outside of their roles are highlighted by the symbolic-interactionist

perspective, which observes roles as vibrant and managed to negotiate. (Ashforth, 2000; Sluss, Van Dick, & Thompson, 2011).

Our research focuses on the second symbolic-interactionist paradigm of role theory. Researchers who embrace this viewpoint usually explore individuals' ties to work roles and even the convergence of job and non-work roles. This standpoint is dominant in the organizational behavior and human resource management literature but is limited in the strategy and entrepreneurship fields. While role theory has grown considerably during the 20 years, its founding principles are frequently fragmented due to the presence of several related but distinct viewpoints on roles in the literature (Anglin et al., 2022). According to role theory, performance management systems must accommodate various roles at work in rectifying these measurement errors. Scholars are trying to realize the relevance of employing roles to conceptualize work performance (Ilgen & HoUenbeck, 1992; Jackson & Schuler, 1995). In a nutshell, our research focuses on the significance of role theory in attaining human resource performance indicators through employees' actions on the job.

2.2 Size of company (employees) on HR indicators

The usefulness of human resource management (HRM) methods has raised questions and fueled debates over the size of employees and their influence on HR performance indicators in the workplace (Storey et al., 2010; Razouk, 2011). Despite the fact that small businesses face unique challenges and must manage their human resources in a more informal manner, previous studies have shown that the management process for small businesses differs from that of large corporations (Kotey & Slade, 2005; Storey, 2002). At the same manner, Idson (1990) observed that employees in large organizations would be less comfortable than those in small workplaces. He believed to be due this to formality, as places of work continue to expand, they must become more formal.

As a result, the regulations governing any particular workplace will fall short of fulfilling the standards of a substantial percentage of workers. Subsequently, Kalleberg and Van Buren (1996) discovered that small firms had a high amount of job autonomy, which they attribute to large organizations' tendency to restrict workers' freedom of choice.

Additionally, it is widely recognized that numerous formality indicators are related to the size employees in the various organizations. The prior research conducted in diverse contexts such as U.S. (Kaman et al., 2001), Australia (Kotey & Slade, 2005), the UK (Kersley et al., 2006; Kitching & Blackburn, 2002), and Canada (Golhar & Deshpande, 1997) have proven that the existence of an HR manager, for example, is substantially correlated with the size of the company and the characteristics of its employees. For this reason, it is critical to distinguish between the size of the workplace and the size of the business as a whole (Marginson, 1984).

H1. The size of the company (based on the number of employees) will be positively associated with HR indicators.

2.3 Ownership structure of the company on HR indicators

There is a pressing need to initiate a debate on ownership

structure with HR indicators. Similarly, there is extensive study on the influence of corporate structure on firm profitability, despite the fact that previous findings in this field are frequently inconsistent and unclear. (Ballesta & Meca, 2007). Importantly, Jensen and Meckling (1976) observed that how the distribution of stocks among internal and external stakeholders could affect the firm's value. Until then, there has been a lot of debate about the relationship between ownership and performance of the company. Significantly, according to the majority of empirical studies, if owner supervision increases so few impacts of ownership concentration on the quality of decision making, and it leads to performance and concentration will be highly linked (Shleifer and Vishny, 1986).

Several studies indicate that when ownership improves, value of the firm enhances as well, due to several advantages of optimized supervision; nevertheless, when ownership becomes highly concentrated, value of the company begins to decline (Morck et al., 1988; McConnell and Servaes, 1990; Hermalin and Weisbach, 1991; Claessens et al., 2002). These studies demonstrate the positive consistency effect at lower ownership levels and the negative entrenchment effect at higher ownership levels. Surprisingly, a recent study, ownership structure has a moderating effect on company performance in Chinese IT enterprises (Cui et al., 2019).

H2. The ownership structure of the company will be positively related with HR indicators.

2.4 Ownership structure affect HR indicators through autonomy of company

Previous research based on data from a cross-sectional sample of 228 Fortune 500 corporations revealed that variances in firm performance can be explained by ownership structure and diversification (Belkaoui & Pavlik, 1992). However, several scholars have questioned the relevance of ownership structure as an institutional restriction (Lachman, 1985; Roberts, 1975). For example, Roberts (1975) argued that publicly traded, privately held, and government firms have a wide range of and sometimes overlapping internal and external traits, resulting in ownership having little explanatory power over behavior. However, there is fairly limited known about the influence of ownership structure on human resource indicators.

H3. The ownership structure of the company will be positively related with decision making when using of HR indicators.

2.3 Human Resource Indicators

Traditionally, human resources management (HRM) is the cornerstone of business management, as its effectiveness affects the overall performance of the company and the achievement of company goals (Goncharenko, 2017). Andersen (2019) describe that human resources is widely recognised as the most important resource for firm performance. Human resources (Becker, Karen, 2016) are a crucial factor influencing the performance and competitiveness of a company. Pashayee Moghvan (2014) agree that human resource development has a significant effect on performance of organization.

The importance of HR management in the process of measuring performance is evidenced by the generally respected view that the performance of an organization can be assessed according to three perspectives (Popesco et al., 2012; Jiang et

al., 2012; Coz et al., 2011; Marin-Garcia and Tomas, 2016): (1) financial outcomes (profits, sales, market share, accounting measures); (2) organizational outcomes (employee/organizational productivity, customer satisfaction, job performance, product or service quality); (3) HR-related outcomes (job satisfaction, employee commitment, employee turnover, trust in management, absenteeism).

3.0 Research Methodology

This research employed quantitative method to grasp the target population's attitude, individuality, and actions (Creswell & Creswell, 2017). The survey questionnaires were used to collect data so that test hypothesis relationships (Saunders et al., 2017). Large, medium-sized, and small-sized businesses were all included in this study's potential participants (structured according to the 2003/361/ES European Commission methodology). In the Czech Republic's mass privatization program, the relationship between ownership structures can be studied in detail, Firm characteristics had only a marginal influence on the overall ownership structure (Claessens & Djankov, 1999).

The anonymous web-based questionnaire was distributed to respondents through email. The database of Albertina was used to gather contact information for senior and financial management positions, such as the Chief executive officer, Chief financial officer, and the head of the controlling department. The authors approached 9190 companies, with 896 completing the questionnaire, resulting in a 9.75 percent response rate. The distribution of respondents in terms of multiple sectors respectively such as economic sector (according to CZ-NACE classification): manufacturing 226 (25,2%), construction 126 (14,1%), agriculture 33 (3,7%), education 39 (4,3%), health care 11 (1,2%), services 49 (5,5%), energy production 35 (3,9%), transport 35 (3,9%), information technologies 48 (5,4%), wholesales 67 (7,5%), others 227 (25,3%). According to how many employees each company has, these are the groups: less than 50 employees 448 (50%), 50 – 249 employees 249 (27,8%), 250 – 499 employees 106 (11,8%), 500 – 999 employees 53 (5,9%), more than 1000 employees 40 (4,5%).

The survey depicted over 30 business sectors, which were categorized into 4 groups based on number of workers. In line with the Czech Republic's corporate structure, which is dominated by SMEs, the majority of respondents were small- (50%) and medium-sized (27,8%), with large companies accounting for only 22.2 percent of the sample.

The Z-test was used to test the hypotheses. For data processing, statistical methods such as absolute abundance and simple classification of statistical characteristics were used. This fundamental sorting method assisted in the interpretation of the high abundance of enterprises involves the use of statistical attributes assigned to them (the number of employees; the presence of a significant share of foreign capital). Furthermore, the relationship between qualitative plural data sets was calculated using categorization based on two statistical components (a contingency table and contingency intensity) The mean square contingency coefficient was used to evaluate the latter.

By comparing selected groups of companies according to selected parameters, the statistical significance of the characteristics was determined and the hypotheses were tested using the tests defined above to a significance level of 5%. The null hypothesis was ruled out because of variation in

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independence if the p-value was less than 0.05.

Using the Z-score test, we were able to identify statistically significant variances among each change in value for the groupings of businesses. The Z-score parameters were evaluated using the p-value for a standard (standardized) normal distribution. The Z-test can be carried out if the sample size is large enough and the distribution of statistical characteristics is normal. SPSS Statistics software was used to perform the calculations in this research study.

Results

The first set of questions in the survey investigated whether respondents used HR indicators, the type of HR indicators, and the number of HR indicators. Based on our research survey, we found most respondents (58.5%) use HR indicators, however there are variations in execution depending on the firm size. See Table.1.

Number of HR indicators which companies use	Frequency	Percentage (%)
0	204	22.8
1-10	524	58.5
11-20	133	14.8
More than 21	35	3.9
Total	896	100.00

Table.1 Number of HR indicators

A thorough analysis revealed that the number of HR indicators used by businesses ranges from one to ten. It is approximately 60 percent. This finding is aligned with prior research. The most common purpose of using HR indicators is

rewarding employees (13.3%) and employee ratings (11.1%) and motivation of employees (11.1%) and improving performance (10.4%). Detailed data are summarized in Table. 2

For what purpose does the company use HR indicators?	Frequency	Percentage (%)
Employee ratings	419	11.1
Rewarding employees	503	13.3
Improving performance	394	10.4
Comparison with the competition	208	5.5
Basis for decision making	345	9.1
Recruitment and selection of employees	11	0.3
Development and training of workers	268	7.1
Motivation of employees	420	11.1
Control of employees and their performance	303	8.0
To create an employee profile	55	1.5
To achieve goals	334	8.9
For planning and decision making	389	10.3
Other	122	3.2
	3771	100.00

Table.2 Use of HR Indicators

The following section of the study emphasized on the utilization of HR indicators, particularly on its baseline conditions, where the authors investigated the ownership structure as well as the share of foreign capital. Randomly choosing companies from a predetermined list was used to select who would be surveyed for the study. As an outcome, the authors were unable to influence which companies were more likely to have foreign investors or Czech owners. Table.3

provides an overview of respondents and their ownership. Our research revealed 672 are Czech companies without foreign capital. Conversely, 41 companies ranged between 1-50% with foreign capital. Similarly, this research found that 39 companies are between 51-99% with foreign capital. Finally, the 144 companies had 100% foreign capital. These results were further used when testing the hypotheses.

What is the share of foreign capital in the ownership structure of your company?	Frequency	Percentage
Without foreign capital	672	75.0
1-50% foreign capital	41	4.6
51-99% foreign capital	39	4.4
Foreign capital	144	16.1
Total	896	100.00

Table.3 Foreign Capital
Source: Own research findings

Statistical hypotheses testing

The three hypotheses defined in the "Methodology" underwent testing, and description is given below. While the number of enterprises that do not use HR indicators equalled

23% (204/896 enterprises), those that do amount to 77% (692/896 enterprises). Table 6 shows that statistically significant differences exist between the types of enterprises in relation to the using HR indicators. Our findings revealed size of company (number of employees) (H1, chi-square =218,4014, p =0.000) significantly associated with HR indicators.

Number of Employees	Are you engaged in measuring HR indicators?	
	No	Yes
Less than 50 employees	231	217
	88.2%	34.2%
50-249 employees	25	224
	9.5%	35.3%
More than 250 employees	6	193
	2.3%	30.4%
Total	262	634
Chi-square	218.4014	
P-value	0.00001	

Table.4 Testing Hypothesis H1
Source: Own research findings

The second hypothesis complemented the findings of the first test, in that ownership structure (i.e. the share of foreign capital) was identified in the literature review as another factor that can affect the using HR indicators. The number of businesses with a share of foreign capital below 50% equalled

713 (79,6% of 896 enterprises), while 183 others exceeded that percentage of capital (20,4% of 896 respondents). This data is given in Table.5, H2 demonstrated that ownership structure was positively related with HR indicators (chi-square = 66,1075; P-value > 0.05).

Ownership Structure	Are you engaged in measuring HR indicators?	
	No	Yes
Without foreign capital	244	248
	93.1%	67.5%
1-99% share of foreign capital	10	70
	3.8%	11.0%
100% foreign capital	8	136
	3.1%	21.5%
Total	262	634
Chi-square	66.1075	
P-value	0.00001	

Table.5 Testing Hypothesis H2
Source: Own research findings

The H3 shows that ownership structure was significantly related decision-maker of the company when using HR indicators (chi-square = 417,5489; P-value < 0.05). The results

of testing indicate in Table 6. Statistically significant differences exist between the enterprise groups in relation to the parameters of structure and decision-maker.

Ownership Structure	Who is the main initiator of measuring HR indicators?				
	Parent Company	Company Owner	Management	Employees	Others
Without foreign capital	38	352	282	39	10
	27.3%	92.1%	71.8%	78%	7.6%
100% foreign capital	101	30	111	11	122
	72.7%	7.9%	28.2%	22%	92.4%
Total	139	382	393	50	132
Chi-square	417.6489				
P-value	0.00001				

Table.6 Testing Hypothesis H3
Source: Own research findings

Discussion

This research examined the effects of the company's size, ownership structure, and decision-making on HR indicators in multi-sectors of the Czech Republic. As expected, H1 results show that the company's size enhances HR indicators at the workplace. This implies that the size of employees also matters for the use of HR indicators to monitor employee performance. Moreover, firm size in terms of workforce plays a vital role in implementing different HR indicators (Brewster, 2006). This finding is somewhat aligned with the results of prior research (Pervan & Višić, 2012). In particular, our findings have broken a new perspective by unpacking the black box of how the company's size improves HR indicators, which is a neglected issue in the HRM literature (Gong et al., 2013; Orlitzky, 2001).

The finding of H2 revealed that ownership structure improves the performance of HR indicators. Importantly, our result is consistent with findings of previous studies (Hermalin & Weisbach, 1991; Claessens et al., 2002); they also found that ownership structure increases the value of a company by utilization of proper HR indicators. Furthermore, our finding implies an essential insight for managers and decision-makers to consider the role of ownership structure for HR indicators at the micro-meso and macro levels in their organizations. However, prior research has mostly ignored the importance of ownership structure concerning HR indicators, especially in Czech firms (Dokulil et al., 2020; Petera & Wagner, 2017).

The result of H3 suggests that ownership structure has significant impact on decision making by using HR indicators. Significantly, our finding is aligned with previous studies (Demsetz, 1983; Demsetz & Lehn 1985), they found that ownership structure positively boost firm profitability. Importantly, our research revealed that ownership structure is key factor in improving decision making in the organizations. Subsequently, O'Regan et al., (2005) also found that managers would be well advised to consider the vital role of ownership structure and decision making on organizational performance.

Theoretical Contribution

This research has several important theoretical contributions. First, to date, there is scarce research on HR indicators. In this way, our study contributes to body of knowledge by investigating size of company and ownership structure on decision making and HR indicators. Second, our research examined the employee and managerial perceptions among large, medium and small-sized organizations in various sectors of Czech Republic. Notably, the present research enhances our understanding of the importance of multi-sector perspective, which is novel in this sense. Third, our research contributes to role theory in the following way: performance management systems must accommodate various roles at work in rectifying these measurement errors. Furthermore, this research contributes to the call by Zámečník, (2015) for more research on HR indicators as a corporate strategy transition in different settings.

Practical Implication

This research provides worthy insights to managers, top management and HR practitioners in both manufacturing and service sectors. Firstly, size of company considered as an important factor for organizations to devise human resource

strategies and monitor employee performance by using effective HR indicators. In this way, our research suggests that managers must take coherent actions while formulating human resource planning policies. Secondly, this research implies that ownership structure enhances HR indicators at the workplace. Notably, our research suggests that managers prefer strategies that increase corporate size and reduce the risk. Thirdly, this research revealed ownership structure improves decision making by utilizing of human resource indicators. Significantly, our research provides a new insight to managers and top management to adopt effective decision making strategies at the workplace.

Conclusion

The main purpose of this research was to examine the role of size of company, ownership structure on HR indicators for organizational performance at micro level (employee perspective). Rooted in the perspective of role theory, this research gives a fresh multi-sector perspective by collecting data from various companies in both manufacturing and service sectors respectively. The results of this research reveal that size of company and ownership structure are significant predictors of HR indicators. Theoretically, this research is novel in sense to highlighted under-researched context of Czech Republic. Finally, this research provides an important insight to managers and top management of companies to adopt effective HR indicators for better performance.

Limitations and Future Research Directions

This research is not without limitations. Firstly, this research conducted in the context of developed country specially in the Czech Republic. Hence, the results of this research may not be generalized to developing countries due to differences in HR policies, cultural and socio-economic factors. Future studies might seek to validate the present model in different developing countries contexts. Secondly, the HR indicators are an emerging debate in the existing literature. Future scholars need to more holistic research on this to unpacking the important findings from cross-country contexts. Finally, this research is cross-sectional in nature. Future studies must consider to adopt qualitative method such as phenomenology approach as to unearth the real-life experience of employees and managers about HR indicators implementation.

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