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Management of Human Resource Development in Small and Medium-Sized Enterprises: a Comparative Study of China and Ukraine

Abstract. Introduction. In the context of globalisation, digital transformation, and increasing labour market competition, human resources have become a key strategic asset for small and medium-sized enterprises (SMEs). Effective human resource development management significantly influences enterprise competitiveness, innovation capacity, adaptability, and long-term sustainability. SMEs play an important role in economic systems by creating jobs, supporting entrepreneurship, stimulating innovation, and contributing to regional development. However, SMEs in different countries face various challenges related to recruitment, employee retention, professional development, and the implementation of modern HRM practices. Chinese SMEs are characterised by flexible HR systems and active digitalisation of HR processes, while Ukrainian SMEs possess strong educational potential but face labour migration, uneven human capital distribution, and insufficient integration of international HRM standards.

Purpose. The purpose of the study is to analyse the current state and specific features of human resource development management in SMEs in China and Ukraine through a comparative approach. The research aims to identify similarities and differences in HRD systems, assess the influence of economic and institutional factors on HRM practices, and substantiate directions for improving human resource development to enhance enterprise competitiveness and sustainable development.

Results. The study identifies that Chinese SMEs demonstrate high flexibility in recruitment and workforce management, actively use digital HR technologies, and rapidly adapt to changing market conditions. However, they also face high employee turnover, strong competition for skilled personnel, and regional labour disparities. Ukrainian SMEs benefit from a relatively high level of workforce education and professional qualifications, but their HRD effectiveness is limited by insufficient investment in employee training, labour migration, and weak implementation of modern HRM practices. The comparative analysis reveals both common and country-specific characteristics of HRD systems and highlights the importance of digitalisation, professional development, lifelong learning, and diversified motivation systems in strengthening SME competitiveness.

Conclusions. The research confirms that effective human resource development management in SMEs depends on a balanced combination of internal management practices and adaptation to external economic and institutional conditions. The study substantiates the necessity of strengthening enterprise-education cooperation, improving professional training systems, implementing modern motivational mechanisms, and expanding digital HR solutions to increase SME competitiveness and workforce sustainability.

Keywords: small and medium-sized enterprises; human resource development; human resource; management; competitiveness; talent management; motivation; comparative analysis.

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Управління розвитком людських ресурсів на малих та середніх підприємствах: порівняльне дослідження Китаю та України

Анотація. У статті досліджено особливості управління розвитком людських ресурсів у малих і середніх підприємствах (МСП) на основі порівняльного аналізу Китаю та України. Актуальність теми зумовлена зростанням ролі людського капіталу у забезпеченні конкурентоспроможності підприємств, інноваційного розвитку та адаптації бізнесу до сучасних глобальних викликів. Визначено, що МСП відіграють важливу роль у розвитку економіки, створенні робочих місць, підтримці підприємництва та стимулюванні інноваційної діяльності.

У дослідженні проаналізовано сучасні підходи до управління людськими ресурсами, зокрема практики залучення персоналу, професійного навчання, розвитку компетентностей і мотивації працівників. Особливу увагу приділено впливу економічних, інституційних та регіональних факторів на ефективність HRM-систем у Китаї та Україні. Встановлено, що китайські МСП характеризуються високою гнучкістю управління персоналом, активним використанням цифрових HR-інструментів та швидкою адаптацією до змін ринкового середовища, проте стикаються з високою плінністю кадрів і конкуренцією за кваліфікованих працівників.

Доведено, що українські МСП мають значний потенціал розвитку людського капіталу завдяки високому рівню освіти населення, однак ефективність управління персоналом обмежується недостатнім рівнем інвестицій у професійне навчання, трудовою міграцією та недостатнім впровадженням сучасних HRM-практик і цифрових технологій. Обґрунтовано напрями вдосконалення систем управління розвитком людських ресурсів у МСП через посилення співпраці між бізнесом і закладами освіти, розвиток систем професійного навчання, цифровізацію HR-процесів та впровадження сучасних мотиваційних механізмів.

Ключові слова: малі та середні підприємства; людські ресурси; управління персоналом; розвиток персоналу; мотивація; порівняльний аналіз.

Problem statement. In the context of economic globalisation, small and medium-sized enterprises (SMEs) operate under conditions of intensifying competition and rapid market change. Human resources constitute a key strategic asset for SMEs, and the effectiveness of human resource development (HRD) significantly influences enterprise performance, competitiveness, and long-term sustainability.

Despite their important role in national economies, SMEs in many countries face substantial challenges in developing and managing human resources. In China, these challenges are primarily associated with difficulties in talent recruitment, insufficiently developed training systems, and imperfect incentive mechanisms. Rapid economic growth and strong competition for skilled labor contribute to high employee turnover and mismatches between workforce capabilities and enterprise needs.

In Ukraine, SMEs face a different but equally complex set of constraints. Economic transformation and changes in the international environment have intensified issues such as brain drain, uneven regional distribution of human capital, and limited alignment of human resource management practices with international standards. These factors reduce the ability of SMEs to integrate into global markets and implement modern management approaches.

At the same time, the potential for mutual learning and exchange of experience between SMEs in China and Ukraine remains underdeveloped. Existing studies mainly focus on single-country analyses, while comparative research remains limited. This gap restricts the transfer of effective HRD practices and reduces opportunities for improving human resource management in SMEs.

Therefore, there is a need for a comparative analytical approach that allows identifying both common challenges and country-specific features, as well as determining directions for improving human resource development management in SMEs. This study aims to address this research gap through a comparative analysis of HRD practices in SMEs in China and Ukraine

Analysis of recent research and publications. In recent years, scientific interest in human resource development (HRD) in small and medium-sized enterprises (SMEs) has increased significantly, reflecting the growing recognition of human capital as a key determinant of enterprise competitiveness, innovation capacity, and long-term sustainability. Contemporary research emphasises that HRD is not only an internal management function but also a strategic factor shaped by external economic, institutional, and technological conditions.

A significant body of international literature highlights the relationship between HRD practices and the external environment. In particular, authors demonstrate that HRD effectiveness in SMEs is closely linked to regional economic ecosystems, labour market dynamics, and institutional support mechanisms. Empirical studies conducted in Europe and the United States confirm that favourable external conditions enhance enterprises' ability to attract, develop, and retain human capital.

Recent studies further expand this perspective by incorporating the role of digital transformation and knowledge-based economies. For example, Zhang J., Chen Z. [9] emphasise that digitalisation significantly transforms HRM practices, requiring SMEs to adopt flexible learning systems and data-driven management

approaches. Similarly, OECD reports (2023) underline that access to skills development and lifelong learning systems is a critical factor for SME resilience in rapidly changing markets.

At the same time, research within emerging and transition economies has primarily focused on internal HRM mechanisms. Khan M. [11] analyses talent development systems in Chinese SMEs and identifies key weaknesses, including insufficient alignment between training programs and enterprise strategies, limited investment in employee development, and challenges in retaining skilled workers. Other recent studies highlight the importance of integrating strategic HRM practices with innovation processes and organisational development.

Despite these contributions, the existing literature remains fragmented. Most studies focus on individual HR practices or single-country contexts, while cross-country comparative analyses remain limited. In particular, insufficient attention has been paid to the combined influence of regional, sectoral, and enterprise-size factors on HRD management. Moreover, there is a lack of research comparing SMEs operating under different economic transformation conditions, such as China and Ukraine.

These limitations reduce the generalizability of research findings and hinder the transfer of effective HRD practices across countries. Therefore, there is a need for a comprehensive and context-sensitive comparative analysis that integrates both internal and external determinants of HRD in SMEs. This study aims to address this gap by examining human resource development management in SMEs in China and Ukraine.

The purpose of the study. The purpose of this paper is to analyse the current state and specific features of human resource development management in small and medium-sized enterprises (SMEs) in China and Ukraine through a comparative approach. The study aims to identify key similarities and differences in HRD systems, assess the influence of economic and institutional factors on HRM practices, and substantiate directions for improving human resource development to enhance SME competitiveness and sustainable development in the context of globalisation.

The main research question is: What are the key similarities and differences in human resource development management systems in SMEs in China and Ukraine, and how do these differences influence enterprise competitiveness and development? The study tests the following hypotheses:

H1: Human resource development systems in SMEs are significantly influenced by the economic and institutional environment of a country.

H2: Chinese SMEs demonstrate more flexible human resource management practices, which enhance

adaptability but are associated with higher employee turnover.

H3: Ukrainian SMEs possess a relatively high level of human capital; however, its effective utilisation is constrained by the limited implementation of modern HRM practices.

H4: The adaptation of international human resource management practices contributes to improving the competitiveness and sustainability of SMEs.

The research is based on a qualitative comparative approach using academic literature, policy documents, statistical data, and analytical reports. Comparative, contextual, analytical, and synthesis methods were applied to identify the main trends and features of HRD management in SMEs in China and Ukraine.

Main material and results. *Human Resource Utilization in SMEs in China.*

Regional dimension. Significant regional disparities in China strongly influence human resource utilisation in SMEs. The eastern coastal regions concentrate approximately 60% of technology-oriented SMEs and demonstrate a high demand for skilled labor, with over 70% of employees in high-tech firms holding higher education degrees. However, high living costs and intense competition result in elevated employee turnover (15-20%), which negatively affects workforce stability and knowledge accumulation.

In contrast, SMEs in central and western regions rely more on low- and medium-skilled labour. Although this reduces operational costs, it constrains innovation capacity and technological upgrading. The growing demand for skilled professionals in these regions is not fully satisfied, leading to persistent talent shortages.

Industry dimension. In traditional manufacturing SMEs, a significant share of employees is engaged in low-skilled tasks, limiting productivity and product quality. At the same time, technology-oriented SMEs face acute shortages of highly qualified personnel. Approximately 70% of such enterprises report difficulties in recruiting specialists, which leads to delays in innovation processes and restricts growth potential.

Enterprise size dimension. Small enterprises demonstrate high flexibility in workforce management but lack formal HR systems. Around 80% lack dedicated HR units, leading to ad hoc recruitment and training practices, unclear career paths, and high turnover. Medium-sized enterprises have more structured systems; however, family-based management often limits merit-based career development and reduces organizational efficiency.

Human Resource Utilization in SMEs in Ukraine.

Regional dimension. Human resource distribution in Ukrainian SMEs is highly uneven. The Kyiv region concentrates a significant share of highly qualified labor, providing favorable conditions for innovation-driven SMEs. In contrast, eastern and southern regions

experience severe talent shortages due to economic disruptions and migration processes, with workforce deficits reaching 30-40% in some areas.

Western and central regions demonstrate moderate human capital availability; however, the share of highly qualified personnel remains lower compared to major economic centers, limiting the development of knowledge-intensive sectors.

Industry dimension. Agricultural SMEs employ a substantial share of the workforce but face challenges in adopting modern technologies. Only about 20% of employees have relevant technical training, which constrains productivity growth.

In industrial sectors, a large proportion of employees remain in traditional production roles, while there is a shortage of skills in modern technologies and environmental standards. Technology-oriented SMEs also face strong competition for talent, with over 50% reporting recruitment difficulties. Digital transformation increasingly influences HRM systems in SMEs, particularly in recruitment, employee evaluation, and professional development processes (Gadzali S. S., Gazalin J., Sutrisno S., Prasetya Y. B., Ausat A., Suherlan M.) [6,7]. Digital communication tools and social media platforms are increasingly used for employee engagement, recruitment, and knowledge sharing within enterprises [8].

Enterprise size dimension. Small enterprises are particularly vulnerable to economic instability and often lack structured HR management systems. Approximately 70% do not implement systematic training programs, which limits workforce development and reduces enterprises' ability to adapt to technological change [1,5].

Medium-sized enterprises face additional challenges in internationalisation, including insufficient foreign-language skills and cross-cultural competencies among employees, which limit their ability to operate in global markets. International organisations also emphasise that investment in human capital and lifelong learning systems is essential for SME resilience and sustainable development in global markets (OECD, 2023; World Bank, 2022) [12,13].

Comparative Analysis of HRD Models in China and Ukraine.

The comparative analysis reveals both similarities and structural differences in HRD systems in SMEs. Chinese enterprises rely on flexible recruitment mechanisms, including digital platforms and internal referrals, which enhance adaptability but increase screening costs and employee turnover [2,9]. Ukrainian SMEs place greater emphasis on cooperation with educational institutions, although weak coordination limits its effectiveness.

In terms of motivation, Chinese SMEs combine material and non-material incentives, including performance-based rewards and career advancement

opportunities. However, in family-owned enterprises, promotion decisions may be influenced by personal relationships. Ukrainian SMEs prioritise job stability and basic compensation, but limited incentive diversity reduces employee motivation and innovation capacity.

Overall, Chinese SMEs demonstrate higher flexibility and responsiveness to market changes, while Ukrainian SMEs exhibit stronger human capital potential but weaker institutional support and HRM implementation, which significantly affects enterprise competitiveness [3,11]. Effective HRM systems also contribute to the formation of sustainable competitive advantages and support strategic enterprise development [4]. DigitalTable 1 summarises the main differences in human resource management practices between SMEs in China and Ukraine.

Table 1 summarises the key characteristics of human resource management systems in SMEs in China and Ukraine. The comparison highlights both common features and structural differences shaped by cultural, institutional, and economic factors. While Chinese SMEs demonstrate stronger internal training systems, hierarchical management structures, and diversified incentive mechanisms, Ukrainian enterprises place greater emphasis on individual autonomy, external cooperation in talent development, and international labour mobility. These differences reflect broader national contexts and explain variations in recruitment, motivation, and human resource development practices.

The results of the comparative analysis confirm the significant influence of external economic and institutional factors on human resource development systems in SMEs, which supports H1. In particular, differences in labour market structure, regional development, and institutional frameworks explain the variation in HR practices between China and Ukraine.

The analysis supports H3, showing that Ukrainian SMEs benefit from a relatively high level of workforce education; however, the effective utilisation of human capital remains constrained by institutional and economic [14]. At the same time, the effectiveness of human capital utilisation remains limited due to insufficient implementation of modern HRM practices and weak integration with international standards.

The findings also confirm H2, as Chinese SMEs demonstrate higher flexibility in recruitment and workforce management. However, this flexibility is associated with increased employee turnover and reduced workforce stability, especially in highly competitive regions.

Finally, the results indirectly support H4, indicating that adopting advanced HRM practices, including structured training systems and diversified incentive mechanisms, can enhance SME competitiveness and sustainability.

Overall, the findings highlight that effective human resource development in SMEs requires a balanced combination of internal management practices and adaptation to external environmental conditions.

Scientific novelty of the study lies in:

- conducting a comparative analysis of HRD systems in SMEs in China and Ukraine;
- identifying the influence of institutional and regional factors on HRM practices;
- substantiating directions for improving HRD strategies in SMEs.

Table 1 Analysis of the Characteristics of Human Resource Management in China and Ukraine

Characteristics	China	Ukraine
Cultural background influence	Influenced by Confucian culture, Chinese enterprises emphasise harmonious interpersonal relationships and teamwork. Emotional incentives are widely used to strengthen employees' sense of belonging and organisational cohesion. At the same time, hierarchical structures are prevalent, and managerial decisions are typically centralised, particularly in traditional enterprises.	Influenced by European cultural traditions, Ukrainian enterprises emphasise individualism, personal rights, and self-realisation. Employees value work-life balance and autonomy. Communication within organisations tends to be more direct and egalitarian, with less emphasis on hierarchy.
Talent cultivation mode	The education system focuses on strong theoretical foundations, while vocational education continues to expand. Universities and vocational institutions actively supply professional and technical talent. Internal corporate training systems are relatively well developed; for example, large companies such as Lenovo provide structured training programs and career development opportunities.	Higher education programs are characterised by strong specialisation and depth, particularly in priority fields such as aviation and aerospace. Due to limited financial and organisational resources, many enterprises have underdeveloped internal training systems and rely on external professional training providers.
Recruitment channels and methods	With the expansion of online recruitment platforms, enterprises increasingly rely on digital channels and campus recruitment. Personal networks also play an important role. Platforms such as 51job facilitate employer-employee matching, and many companies conduct regular recruitment campaigns at universities.	Recruitment websites serve as a primary channel and play an important role in international labour mobility. Professional associations and headhunting agencies are widely used for hiring senior specialists. Close ties with European markets facilitate access to candidates with international experience and foreign language skills.
Incentive mechanisms	Material incentives, including performance-based bonuses and employee benefits, are widely applied. Non-material motivation is also emphasised through recognition programs and promotion opportunities, supported by relatively clear career progression paths.	Material incentives are mainly based on wages and performance-related pay, with a relatively limited benefits package. Non-material incentives emphasise personal achievement, autonomy, and flexible working conditions.

Source: Source: compiled by authors based on Youndt et al. (1996), Hamadamin and Atan (2019), OECD (2023), and World Bank (2020) [3,10,12,14]

Conclusions. This study examined human resource development management in small and medium-sized enterprises (SMEs) in China and Ukraine, with particular attention to regional, sectoral, and organisational dimensions. The findings confirm that SMEs in both countries face significant challenges in human resource development, while also demonstrating country-specific strengths shaped by economic, institutional, and socio-cultural factors.

The results support H1, confirming that human resource development systems are strongly influenced by the external environment, including labor market conditions, regional disparities, and institutional frameworks. Differences between China and Ukraine clearly illustrate the impact of these factors on HRM practices.

The analysis also supports H2, showing that Chinese SMEs demonstrate high flexibility in workforce management and recruitment practices. However, this flexibility is associated with increased employee turnover and insufficient long-term workforce stability, particularly in highly competitive and technology-intensive sectors.

The findings confirm H3, indicating that Ukrainian SMEs benefit from a relatively high level of workforce education and established cooperation with educational and research institutions. Nevertheless, the effective utilization of this human capital is constrained by limited implementation of modern HRM practices and weak integration into international management standards.

In addition, the results support H4, highlighting that the adoption of advanced human resource

management practices, including structured training systems, diversified incentive mechanisms, and stronger enterprise–education collaboration, can significantly enhance SME competitiveness and sustainability.

The comparative analysis demonstrates the potential for mutual learning between the two countries. Chinese SMEs may benefit from strengthening cooperation with educational institutions to improve talent quality, while Ukrainian SMEs can adopt more flexible HRM practices and diversified motivation systems to increase adaptability and employee engagement.

From a policy perspective, the study emphasizes the importance of targeted measures aimed at improving

access to training and upskilling programs, promoting enterprise–university collaboration, encouraging the adoption of international HRM standards, and reducing regional disparities in human capital development. Strengthening international cooperation and knowledge exchange platforms is also essential for enhancing SME performance in the global economy.

Overall, the study contributes to a deeper understanding of human resource development management in SMEs under different national conditions and provides practical implications for both policymakers and enterprise managers in the context of economic globalisation.

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