

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Hang, Nga Phan Thi

## **Article**

Factors affecting the management of human resources at small and medium enterprises during Covid-19 pandemic in Vietnam

Cogent Business & Management

## **Provided in Cooperation with:**

**Taylor & Francis Group** 

Suggested Citation: Hang, Nga Phan Thi (2024): Factors affecting the management of human resources at small and medium enterprises during Covid-19 pandemic in Vietnam, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 11, Iss. 1, pp. 1-21, https://doi.org/10.1080/23311975.2024.2352884

This Version is available at: https://hdl.handle.net/10419/326282

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.



https://creativecommons.org/licenses/by/4.0/

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





# **Cogent Business & Management**



ISSN: 2331-1975 (Online) Journal homepage: www.tandfonline.com/journals/oabm20

# Factors affecting the management of human resources at small and medium enterprises during Covid-19 pandemic in Vietnam

## Nga Phan Thi Hang

**To cite this article:** Nga Phan Thi Hang (2024) Factors affecting the management of human resources at small and medium enterprises during Covid-19 pandemic in Vietnam, Cogent Business & Management, 11:1, 2352884, DOI: 10.1080/23311975.2024.2352884

To link to this article: <a href="https://doi.org/10.1080/23311975.2024.2352884">https://doi.org/10.1080/23311975.2024.2352884</a>

9	© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
	Published online: 14 May 2024.
	Submit your article to this journal 🗹
ılıl	Article views: 2624
a a	View related articles 🗗
CrossMark	View Crossmark data ☑
	Citing articles: 1 View citing articles 🗹



## MANAGEMENT | RESEARCH ARTICLE



## Factors affecting the management of human resources at small and medium enterprises during Covid-19 pandemic in Vietnam

Nga Phan Thi Hang (1)



University of Finance - Marketing (UFM), Ho Chi Minh City, Vietnam

#### **ABSTRACT**

During the past pandemic, digital business activities have developed enormously, and many businesses have undergone a significant transformation to participate in the digital revolution. However, for the digital transformation to take place successfully, Industry 4.0 comes from breakthroughs in many fields, including the digital wave of the manufacturing sector. Many countries have paid attention to and concretized priorities for developing a digital economy. Vietnam also faces challenges that the digital trend brings, including the risk of competition for small and medium enterprises, especially high-quality human resources in today's businesses. This article analyzed the current situation and applied descriptive statistics to summarize and apply the structural equation model (SEM) from a set of data, a research sample in numbers, and visual charts that surveyed 850 enterprise managers. Human resource management is a multifaceted process that has wide-ranging effects. Presently, several variables are influencing the field of human resource management. These elements often undergo changes and can be categorized into fundamental influencing factors: The attributes of the external factors, including the economy, people, legislation, culture, rivals, science, and technology. The internal environment encompasses several variables: the working environment, labor recruitment and selection, training and development, remuneration, bonuses, and welfare. The article's goal is to explore factors that influence human resource management. Based on the results, the article's contributions had several policy recommendations for developing human resources at small and medium enterprises for Vietnam's post-Covid-19 pandemic. The application of the research is to strengthen and build a cultural working environment and create conditions and opportunities for human resources to develop; business leaders must be exemplary in words and deeds. Human resource development strategies must be implemented in an environment of fairness, discipline, ethics, and respect for the law as standards; create a cultural environment, leading the development of human resources.

#### ARTICLE HISTORY

Received 24 February Revised 23 February 2024 Accepted 29 April 2024

#### **KEYWORDS**

Human resource management; enterprises; covid-19 pandemic; policy implications; Vietnam

#### **REVIEWING EDITOR**

Huifen (Helen) Cai, Middlesex University Business School, United Kingdom

#### **SUBJECTS**

human resource management; heritage management & conservation: administration and management: management & organization

#### 1. Introduction

The digital economy is a long-term development process, digital transformation on the national level at different levels. Digital technology can do their jobs better and even have a breakthrough to bring outstanding productivity and efficiency. The studies defined the digital economy as primarily reliant on digital technologies, particularly electronic transactions carried out over the internet. The digital economy encompasses all areas, including industry, agriculture, services, production, distribution, product circulation, transportation, logistics, finance, and banking, where digital technology is utilized (Adeyi et al., 2018; Zacher & Rudolph, 2022).

The digital economy is characterized by integrating three basic processing processes: material processing, energy processing, and information processing. Information processing is the most crucial and most accessible area of digitization (Igbal & Ahmad, 2020). The advancements in information technology and the internet have facilitated connectedness and hyperconnectivity between entities and economic cycles. This has resulted in the efficient connection of resources, the elimination of middlemen, and increased access chances for the global value chain.

Each economy requires a corresponding production force regarding its level, especially human resources. Therefore, digital human resources must be deployed, organized, and operated in the digital economy. Consequently, we can understand that digital human resources are the total quantity and quality of human beings with a combination of intellect, physical strength, and moral-spiritual attributes. This factor creates the capacity for the digital economy and will be needed to mobilize labor and creativity.

The current situation of Vietnam's human resources is that they are making breakthroughs and progress. However, Vietnam's labor productivity is still very different from the world's, even in Southeast Asia and read the following article to learn more about this issue. Regarding the human resources quantity, Vietnam now possesses a plentiful workforce compared to many places in the area and globally. Vietnam's population in 2020 stands at 97,757,118 individuals, positioning it as the third most populated nation in Southeast Asia. Among this population, 54.56 million people, comprising around 58%, are of working age. The labor force participation rate is most significant among those aged 25-29.

Vietnam's position on the worldwide capability ladder is relatively poor concerning the quality of human resources. There is a scarcity of proficient laborers and highly trained technical personnel. Vietnamese labor has demonstrated that the caliber of Vietnamese human resources ranks low on the worldwide capability ladder, characterized by a scarcity of competent and highly proficient technical professionals. Only 11.39 million workers, equivalent to 20.87% of the workforce, possess professional and technical credentials. These qualifications include degrees and certifications at various levels, ranging from elementary to graduate education. Over the last decade, there has been a significant rise in the percentage of workers who have undergone formal training. However, a substantial 76.9% of individuals in the labor market have yet to obtain any form of specialized training.

Regarding geographical features, the number of individuals in metropolitan regions who possess degrees and certifications, starting from elementary level and beyond, is 2.5 times more than that in rural areas. The Red River Delta has the most significant proportion of the qualified workforce with degrees and certificates, at 31.8%, followed by the Southeast region at 27.5%. In contrast, the Mekong River Delta has the lowest percentage at 13.6%. The Ministry of Planning and Investment's 2019 figures reveal that Vietnam's labor productivity is just 7.6% of Singapore's, 19.5% of Malaysia's, 37.9% of Thailand's, 45.6% of Indonesia's, 56.9% of the Philippines, and 68.9% of Brunei's. When comparing Myanmar, Vietnam is just 90%, and Laos is only 88.7%. According to a study by Anlesinya and Susomrith (2020), Vietnam's labor productivity surpasses only that of Cambodia among Southeast Asian countries.

The paradox is an excess of unsuitable labor for industries in the development orientation but a shortage of high-quality human resources in the initiatives necessary to develop the economy. More than 70% of graduates lack professional and soft foreign language skills to approach work. In addition, an advanced degree does not determine whether it is difficult or easy to apply for a job but whether the human resource can meet the employer's requirements. Even many companies say they are having difficulty recruiting high-quality human resources. Every year, the company has to spend hundreds of thousands of dollars to send workers for retraining because the recruited human resources do not meet the job requirements.

In 2021, the city's labor market needed to recruit 20,000 jobs, in which the recruitment needs of enterprises in industrial parks - export processing zones is 5,000 seats. According to employers, human resource demand continues to follow the market for many high-quality human resources. However, recruiting this force is difficult because the labor supply has not yet met the needs of employers. Many industries and fields, such as financial business, banking, auditing, information technology, electronics, telecommunications, mechanical engineering, etc., are always severely short of high-quality human resources.

Finally, the source of high-quality labor in Vietnam is still limited. Specifically, according to the Ministry of Labor, War Invalids, and Social Affairs, by the end of 2020, only 23.14% of workers have degrees and certificates from elementary or higher. This rate only increased to 25.82% in 2021. However, businesses increasingly recognize the human factor as the center of development. However, focusing on personnel issues, attracting talents, and developing people parallel to the organization's growth only happens in large enterprises. Most Vietnamese enterprises are not taking this and have not

considered people to be assets, contributing to the value of the business, a key factor for development and society.

The author supposes the essence of the digital economy is an economy based on applying digital technologies. The economy develops on a knowledge base, where knowledge is considered a resource for developing the economy. Digital human resources must be well-trained, professional, ethical, capable of mastering technology, creative, and adapting quickly to the change of technology in the economy (Al-Haddad & Kotnour, 2015; Cunningham et al., 2006). The human factor is the most critical in enterprises' digital transformation process. Therefore, the author had some policy recommendations for developing enterprises' human resources based on small and medium during the Covid-19 pandemic in Vietnam.

#### 2. Literature review

#### 2.1. Human resources management (HR)

Human resources management is a strategic endeavor focused on cultivating a skilled and capable workforce that can effectively support the firm's growth objectives. It also emphasizes the personal development and growth of each worker inside the organization (Aktar, 2012; Katou, 2009). Human resources management involves the facilitation and promotion of human capabilities within an organization via activities such as organizational management, training, and personal development. The goal is to enhance performance and execution. Human resources management encompasses various processes and activities aimed at enhancing the knowledge, skills, productivity, and job satisfaction of individuals or groups within an organization, particularly in a business context (Martin & Coetzee, 2007; Minbaeva & Navrbjerg, 2023; Stuart et al., 2021).

The field of human resources management is concerned with the study and application of theories and practices linked to training, development, and learning within organizations. It emphasizes the role of humans and their impact on influencing corporate strategy and enhancing organizational competitiveness (Frank & Mridula, 2018; Zhang & Edgar, 2021). The implementation of human resources management aims to expedite commercial processes and enhance operational efficiency for organizations. However, it is important to enhance the workers' functional capacity while ensuring alignment with the corporate growth strategy (Dobrovič & Timková, 2017; Igbal et al., 2014). Management of human resources is the ideal combination of the workforce, training level, ethics, and employees' skills to support the development of business plans for enterprises. Businesses operate effectively and contribute to socio-economic development in the best way. Based on the above analysis, the author had the following human resources management (HR) scales: HR1: The current workforce is very stable. HR2: Professional qualifications of employees. HR3: Ethics and behavior of employees and ability to handle work (Aktar, 2012; Ererdi et al., 2021).

## 2.2. Working environment (WE)

The comfortable, open, and transparent working environment allows employees to work with peace of mind and help enterprises achieve expected business results (Butali & Njoroge, 2017; Ram et al., 2022). The working environment also has a significant influence on job seekers and people going to work. Currently, employees are more interested in the working environment, especially those who have experience and are "jumping jobs." However, there are also evaluation criteria such as company culture, working space, leadership, career development opportunities, remuneration regime, reward, and effort for employees' work (Cooke et al., 2020; Katarzyna, 2019). This factor will motivate them to work more actively. On the other hand, the working environment can balance work and life to feel more satisfied and upbeat. If employees achieve their goals in life, such as family, friends, career, etc., they can feel more confident about themselves and perform more diligent and creative work at the workplace (Anlesinya & Susomrith, 2020; Basil & Helen, 2013).

A good working environment created conditions for employees to work comfortably and stably, significantly affecting the development of enterprises' human resources. A good working environment is full of positive energy, giving employees excitement and motivation to work at total capacity (Ikinci, 2014). Moreover, a professional and friendly working environment is an excellent opportunity for employees to affirm and maximize their working capacity, study and improve their qualifications to serve practical goals (Kyndt et al., 2009). Therefore, it is an essential need in developing human resources at enterprises. The working environment is indispensable without development opportunities for employees. Businesses need to have appropriate training programs and promotion roadmaps to know where they can grow. Good development opportunities will make employees stick with the company for a long time (Appelbaum et al., 2017; Ke et al., 2006). Based on the above analysis, the author had the working environment (WE) scales following: WE1: Employees work professionally and seriously. WE2: The workplace has all the necessary equipment for employees. WE3: Employees are pleasant and comfortable talking to each other to perform their jobs. WE4: Business owners helped and supported employees with difficulties at work and were treated fairly (Anlesinya & Susomrith, 2020; Collings et al., 2021). Thus, the author gave hypothesis H1 the following:

Hypothesis H1: The working environment (WE) positively affects enterprises' human resource management.

#### 2.3. Recruitment and selection of labor (RL)

Recruitment and selection of labor: businesses need a labor recruitment strategy that must be consistent with the company's goals to have a successor team when training, transferring, and promoting (Asfaw et al., 2015; Fee & McGrath-Champ, 2017) Or arranging for the number of employees to retire or quit their jobs; recruitment sources from various sources, job placement websites, contracts with training units, selection may require a process by which the enterprise determines what needs (Harney & Alkhalaf, 2021). Potential candidates must ensure the basic knowledge, capacity, attitude, skills, and other issues to help them achieve their goals. This factor is considered the responsibility of the human resources department. It is responsible for recruiting the right people for the right jobs following the job description to find good employees to serve the development of the business in the future (Hasler et al., 2006; Mohanad & Ibrahim, 2019).

For enterprises, labor recruitment is one of the crucial stages. Recruiting qualified and specialized workers suitable for recruitment needs will help businesses save money, costs, and time and bring results as expected, especially in the current development context (Karia & Asaari, 2006; Kotey & Folker, 2007). Recruiting human resources is one factor that retains good employees because these workers can support the enterprise in implementing its plans, so interested businesses always appreciate the recruitment of employees. The recruitment of human resources has a highly significant meaning, which is decisive to the success or failure of each enterprise. Personnel recruitment directly impacts businesses, employees, and the country's socio-economic development (Lim et al., 2020; Zeqir & Ymer, 2019). Thus, recruiting personnel is finding and selecting personnel to satisfy the needs and add the necessary workforce to realize the enterprise's objectives. Based on the above analysis, the author had the recruitment and selection of labor (RL) scales following: RL1: Enterprises announce recruitment information widely. RL2: The recruitment system of the enterprise is guaranteed high science. RL3: A clear job description for employees and provide complete job information to employees right from the moment they had recruited. RL4: Employees recruited entirely based on power (Chang et al., 2022; Zeqir & Ymer, 2019). Therefore, the author gave hypothesis H2 following:

Hypothesis H2: The recruitment and selection of labor (RL) positively affect enterprises' human resource management.

#### 2.4. Training and development (TD)

Training and development are core issues that have a direct and vital impact on the management of human resources at enterprises to improve human resource quality comprehensively. This factor had considered essential to develop human resources in enterprises (Mclean, 2006). To achieve long-term

results, it is also necessary to pay attention to the training of the successor labor force, so training and professional improvement for the enterprise's employees is a common and essential issue. Training and development of labor: Training fosters professional knowledge and skills to perform a specific assigned job (Rani & Khan, 2014). The purpose of training is to demonstrate the capacity of job requirements and improve the efficiency and quality of their labor. Currently, there are many types of training in many fields, such as short-term refresher training, vocational training, and job performance training according to the needs of enterprises.

Training is one of the most common interventions to human resources challenges. Practical training and development of employees make them actively participate in the industry's growth. The potential for career growth promotes personal motivation to participate in an activity (Okoye & Ezejiofor, 2013). Skills training must be transferred to the workplace, maintained over time, and generalized across different contexts to improve productivity (Carnevale & Hatak, 2020; Pakdel, 2016).

Both formal and informal training opportunities had seen as providing a forum for talent development. Training and developing human resources are essential activities in an organization that has a significant role and significance in developing the business and the enterprise's competition in the market (Rein et al., 2012). Creating and developing human resources helps firms. Thus, the ultimate purpose of human resource training and development is to make the most of the existing human resources and improve the organization's efficiency by helping them better understand the job. Based on the above analysis, the author had the training and development (TD) scales: TD1: Employees have many opportunities to develop and advance their work. TD2: Employees have the opportunity to study and create at the enterprise. TD3: The business helps employees develop the skills to get the job done. TD4: Businesses encourage learning to apply to work and train the skills necessary to do the job well (Okoye & Ezejiofor, 2013; Rein et al., 2012). Thus, the author gave hypothesis H3 following:

Hypothesis H3: Training and development (TD) positively affects enterprises' human resource management.

## 2.5. Salary, bonus, and welfare (SB)

Help businesses achieve business results. Paying is one of the necessary forms of human resource management policy, and salary is a significant issue; it helps employees improve their lives and always devote their labors (Rosenberg & Mosca, 2011). In addition, to receive an appropriate and accurate salary for their time and labor, businesses must know how to motivate them physically and mentally to give them a firm belief to work for a long time for business (McClean & Collins, 2019). In case their work exceeds the salary or rewards from the enterprise, especially the unfair salary and bonus regime, dissatisfaction may occur.

Salaries, bonuses, and other benefits of employees are accounted for in their operating expenses by the enterprise. Therefore, enterprises that want to maintain their labor resources or attract good workers from other businesses must create all conditions for payment reasonably with the needs of the job (Uraon, 2017). However, there are still workers who sometimes work unsatisfactorily despite having high professional qualifications and skills. For these workers, it is necessary to encourage them to help them develop their forte - steps to achieve the efficiency of the assigned work (Butterick & Charlwood, 2021; Sanyal & Hisam, 2018). And benefits are allowances covered by the business; allowances for employees with difficult circumstances; corporate gifts for employees on weddings, birthdays to motivate employees to work with peace of mind. Based on the above analysis, the author had the salary, bonus, and welfare (SB) scales following: SB1: The salary payment in the enterprise is consistent with the performance of the company's working rate. SB2: The employee's salary is commensurate with the work and duties. SB3: Enterprises implement reward regimes and are accurate to the commitment to the employee. SB4: Policy on rewards and benefits clear notice to employees and reward and recognition based on enterprise results (Sanyal & Hisam, 2018; Uraon, 2017). Thus, the author gave hypothesis H4 the following:

Hypothesis H4: The salary, bonus, and welfare (SB) positively affect enterprises' human resource management.

#### 2.6. Evaluation of work results (EW)

Evaluation of work results: For any business enterprise, it also depends on the working capacity of employees and always exists, including three main steps: Determining goals, evaluating the performance of the plans, and providing relevant content for feedback. Business owners can observe and comment on employees' attitudes and behaviors with assessment tools set by the business (Kyndt et al., 2009). However, often evaluate work periodically and follow the process. After evaluating work results to improve productivity, work quality, increase salary, transfer, promote to a higher position, terminate labor contract. Therefore, assessing work results is a priority for a modern operating enterprise to improve work productivity for all employees.

The assessment serves as a basis to encourage and improve the efficiency of the enterprise's employees. Job performance evaluation can help employees recognize deficiencies in the enterprise's work that did not complete on schedule. In addition, employees are very interested in evaluating their performance from the employer through the job (Karia & Asaari, 2006). The employee's assessment by the employer had intended to help the employee reassess his working capacity in the past to have a way to overcome these weaknesses (Rani & Khan, 2014). Besides, evaluating the employee's work performance helps the business owner have a more macroscopic vision of managing the human resource. In addition, the element of job performance evaluation provides feedback so that employees know what level they are to promptly correct mistakes to complete the job well. And the assessment evaluation of job performance is a stepping stone for business owners to consider and promote employees to higher positions (Branicki et al., 2022; Zegir & Ymer, 2019). Based on the above analysis, the author evaluated work results (EW) scales following: EW1: Evaluation criteria associated with work and results of employees. EW2: The enterprise has a straightforward job evaluation process for employees and is fair and objective. Based on the capacity assessment as the basis for decisions. EW3: The enterprise has promotions and salary increases. EW4: Job evaluation stimulates employees to improve their working capacity (Adikaram et al., 2021; Mohanad & Ibrahim, 2019; Zegir & Ymer, 2019). Thus, the author gave hypothesis H5, H6 and H7 following:

Hypothesis H5: The evaluation of work results (EW) positively affects enterprises' human resource management.

Hypothesis H6: The evaluation of work results (EW) positively affects enterprises' training and development.

Hypothesis H7: The evaluation of work results (EW) positively affects enterprises' salary, bonus, and welfare.

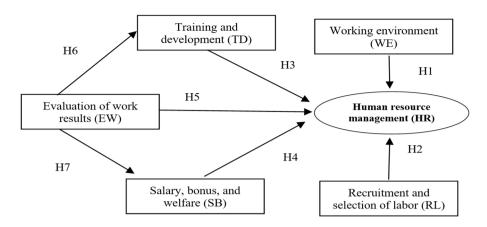
The author has built the research hypothesis, and the research model is presented in Figure 1. Based on the original theory of management of human resources and the overview results of previous studies, the author finds that many factors affect enterprises' management of human resources. The author needs to focus on research - in-depth analysis of 5 elements in the economic context of international integration.

#### 3. Methods of research

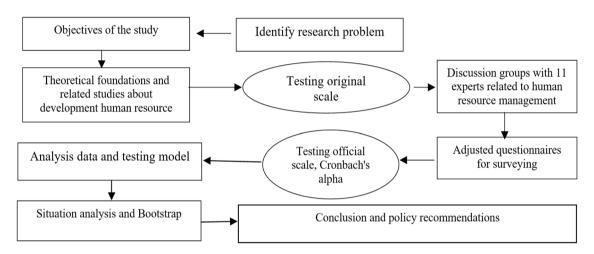
To solve the problems posed by the above theory and model. The author continues to present the research method of the results mentioned in the following contents: qualitative research; preliminary quantitative research; evaluate the reliability coefficient Cronbach's alpha; discovery factor (EFA); confirmatory factor (CFA); structural equation model (SEM); Bootstrap test; preliminary research steps; build a draft scale; preliminary quantitative research results; conclusions about the results of the initial study. Preliminary quantitative research results will continue eliminating incompatible observed variables before the official survey. The author presents the research contents of the article according to the research process in Figure 2 as follows (Hair et al., 2018).

This study had mainly based on two main research methods: qualitative research and quantitative analysis.

The qualitative method had carried out according to the following process: the author reviews the overview documents related to the paper to find the gaps of previous studies. And the author proposed a theoretical research model; at the same time, the author discussed with 11 experts who are 11 business owners with many years of experience to complete the preliminary research scale. The main goal



**Figure 1.** The research model for the factors affecting the management of human resources of enterprises. *Source*: The author proposed.



**Figure 2.** The research process for the factors affecting the management of human resources of enterprises. *Source:* Author's process.

of the qualitative research is to build a model of factors affecting human resource management. Qualitative research also plays an exploratory role and builds a foundation to achieve the remaining two goals through the proposed theoretical framework based on the evidence discovered. Based on theory and logical reasoning, a path model is built showing the relationship between research concepts (variables) in which research hypotheses will be presented visually to serve the needs of the research inspection. In addition, in the qualitative research phase, the method discussed 11 experts in business management. In this study, the process of summarizing theory is through studying previously published research topics and understanding background theories. The research also inherits the measurement scales applied in past studies abroad. However, the author conducted discussions with experts to ensure that the scale suits the Vietnamese context and culture.

The discussion participants are researchers with experience in practice and published human resource management research. The group of experts participating in the discussion includes 11 people, all highly specialized and knowledgeable about human resource management and have many years of experience in business management. During the debate, the author records all discussion content. Through discussion, the scales were adjusted to suit the research objectives. Online discussions were carried out from May 2021 to September 2021 at large enterprises operating in HCMC. The applied components measure related concepts from foreign or domestic studies, and the research content does not overlap with previous studies. Therefore, discussion with experts is a crucial issue to recalibrate the scale. The discussion is mainly for preliminary research; quantitative preliminary research

results are the basis for the author to complete the scale and questionnaire for the official survey (Hair et al., 2018).

Quantitative research method: the author conducted a survey using a questionnaire in Table A1. The subject is the director/deputy director of an operating enterprise. This article analyzed the current situation and applied descriptive statistics to summarize and apply the structural equation model (SEM) from a set of data, a research sample in numbers, and visual charts that surveyed 850 enterprise managers in Ho Chi Minh City, Da Nang City and three provinces, such as Dong Nai province, Ba Ria - Vung Tau province, Binh Duong province. The author surveyed data by emailing questionnaires to managers from November 2021 to December 2021. After collecting data, the author checked invalidly answered questions and eliminated questionnaires lacking information. Thus, the total number of valid survey questionnaires included in the official data analysis is 831 respondents, corresponding to 97.76%; this is the official data in the SPSS software for processing and analysis. After collecting the data using analytical techniques to evaluate the human resources scale management, the next step is to test the research model and hypotheses. The author's official research had based on 08 specific research steps: Step 1: Survey of directors/deputy directors working at industrial enterprises operating in Vietnam. Step 2: Synthesize the survey forms, clean, encrypt data and use SPSS, AMOS software to study the next steps. Step 3: Descriptive statistics of the collected data. Step 4: Reliability assessment and EFA. Step 5: CFA confirmatory factor analysis. Step 6: Analyze the structural equation model (SEM). Step 7: Test the competition model. Step 8: Final is analyzed Bootstrap. After building the components, this study uses a 5-level evaluation scale for quantitative research (Hair et al., 2018). And the scale of the concept of management of human resources, based on the proposed research model and preliminary test results of the component scale, the research concept scale, the official research model, and the research hypotheses proposed by the author. These factors affect the management of human resources (Hair et al., 2018).

#### 4. Research results

## 4.1. Analysis of survey results of 850 business managers on the management of human resources

The digital economy has bounced back, but many issues still need further strengthened. During the past pandemic, digital business activities have developed enormously, many businesses have had a significant transformation to participate in the digital revolution. However, for the digital transformation to occur successfully, we need to solve the "bottlenecks" of which human resources are one of them. On the Government's side, the policies have been adequate in promoting the improvement of the labor force's quality to meet the economy's innovation needs in the coming time. However, the application of the policy must be concretely and effectively.

Figure 3 has an agreement level of 47% at level 4. This outcome suggests that the work environment is a crucial determinant that has a considerable impact on employees' productivity and the quality of their work. A good working environment encompasses several variables, including facilities that cater to work requirements, the internal culture of the organization, employee compensation systems, and the dynamics between management and subordinates. A professional working atmosphere fosters employee morale and productivity. In contrast, a negative working atmosphere in the organization can lead to employee dissatisfaction and reduced productivity.

Enterprises do not pay attention to creating a close connection between businesses and schools. Enterprises should manage human resources strategy and place-specific orders for training institutions. In this connection, there should be close coordination between training experts, universities, and businesses in designing and managing training programs. Firms can directly participate in building training programs with the school or teach students skills.

Managers ignore building their development strategy based on the business development strategy, creating a basis for adequately identifying human resource needs, thereby developing training and management of human resources strategy to meet their strategic needs. The design of training and developing human resources needs to shift the focus from teaching to employees' continuous learning. Managers should place human resource training and development strategy in the overall human resource strategy

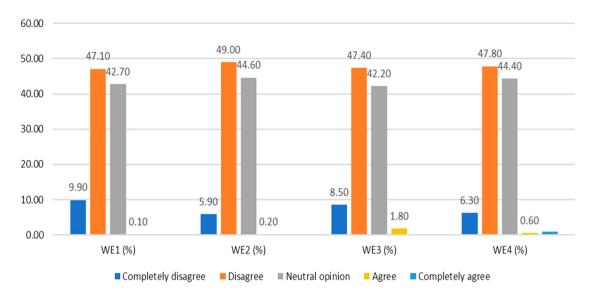


Figure 3. Frequency statistics results on working environment factors. Source: Data processed from SPSS 20.0 and Excel.

Table 1. Descriptive statistics results on working environment factors.

Scales	N	Min	Max	Mean	Std. Deviation
WE1	831	1.00	5.00	2.3381	0.66222
WE2	831	1.00	5.00	2.3995	0.61444
WE3	831	1.00	4.00	2.3730	0.66437
WE4	831	1.00	5.00	2.4224	0.66291
WE	831	1.00	4.00	2.3833	0.57553

Source: Data processed from SPSS 20.0.

of the enterprise: Attracting, attracting, motivating, evaluating, training and developing, and developing career.

Enterprises do not pay attention to technical skills. It is necessary to focus on developing the competencies of modern workers: Creative problem-solving, communication, negotiation, conflict management, teamwork, continuous learning normal, adaptive and innovative task management activities, thereby encouraging applying to work, creating a favorable environment to use to work. Human skills must become the capacity of all management levels, so it is necessary to train all managers in human skills quickly: interviewing, arranging workers following ability, performance evaluation, mentoring, and developing subordinates.

Table 1 shows that the mean value is under 3.0. This result said that working environment in a comfortable and quality environment, each individual will be stimulated to be creative and spread good work spirit. People will be more motivated to complete all assigned tasks. Thanks to that, the heart of solidarity between the company's internal employees and the leadership becomes closer. A lousy environment will easily make you feel depressed and disrespectful when you can't show your ability and voice. This factor will make employees have a defeatist mentality and at the same time achieve low efficiency at work. More serious is the loss of trust in superiors and businesses. Then sooner or later, employees will automatically leave the company. Since then, the industry's reputation has also declined in the eyes of employees and competitors.

According to Figure 4, the level agreement value is 30%; this outcome suggests that employee recruiting effectively appeals to highly skilled individuals via many channels, encouraging them to submit applications for positions within a firm. Prior to finalizing a recruiting choice, the organization must assess the human resource requirements of both the company as a whole and the human resources department specifically, in order to prevent unnecessary duplication of staff and to optimize time and cost efficiency. The recruiting process of an organization is influenced by several aspects like the firm's

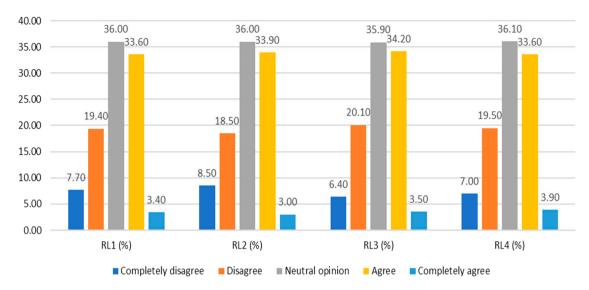


Figure 4. Frequency statistics results on recruitment and selection of labor factors. Source: Data processed from SPSS 20.0 and Excel.

Table 2. Descriptive statistics results on recruitment and selection of labor factors.

Scales	N	Min	Max	Mean	Std. Deviation
RL1	831	1.00	5.00	3.0554	0.98510
RL2	831	1.00	5.00	3.0433	0.99301
RL3	831	1.00	5.00	3.0830	0.96522
RL4	831	1.00	5.00	3.0782	0.97925
RL	831	1.00	5.00	3.0650	0.93137

Source: Data processed from SPSS 20.0.

reputation, brand, culture, working environment, management practices, structure, pay and compensation policies, working conditions, advancement prospects, and industry.

Table 2 demonstrated that successful recruiting significantly contributes to the achievement of firms' goals. Effective recruiting entails identifying individuals who possess the requisite skills and competence to successfully fulfill the specified tasks. Table 2 demonstrates the significant significance of recruiting for firms as it serves as the initial phase of human resource management. Table 2 demonstrated that successful recruiting will furnish organizations with a cohort of proficient, energetic, innovative, and supplementary personnel. Success in the recruitment stage is a prerequisite for success in the subsequent levels. On the business side, it is necessary to have programs to attract talents create conditions for employees to have the opportunity to develop creative ideas and improve skills. At the same time, have a reasonable and fair remuneration mechanism to encourage new and advanced ways of doing things, maximizing creativity for employees. Accordingly, it is not necessary to pay attention to the following factors.

Figure 5 illustrates that the percentage of agreement exceeds 38%. This outcome suggests that prioritizing the training and enhancement of human resources is a crucial endeavor that contributes significantly to the establishment of a sustainable and progressive organization. Recognizing the significance of human resource training is crucial for organizations and enterprises to develop a successful internal training strategy and encourage employee engagement in enhancing their professional abilities. Furthermore, the introduction of effective internal training programs will present several novel prospects for employees to attain triumph in their particular career progression.

Table 3 indicates that organizations must identify human resource training programs inside the workplace to facilitate the development of workers' new abilities, enhance their efficiency and productivity, and more. Furthermore, it provides many novel prospects for employees to augment their preparedness to confront fresh obstacles. Employees may confidently express themselves in the working environment and satisfy varied job criteria from their superiors only when they possess comprehensive knowledge and abilities in work planning.

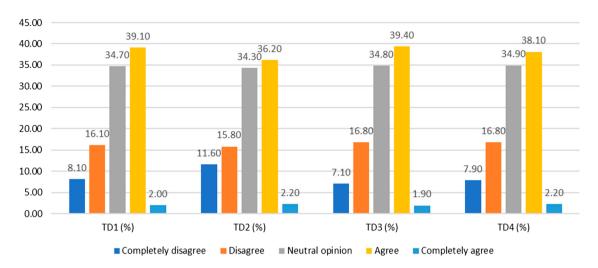


Figure 5. Frequency statistics results on training and development factors. Source: Data processed from SPSS 20.0 and Excel.

**Table 3.** Descriptive statistics results on training and development factors.

Scales	N	Min	Max	Mean	Std. Deviation
TD1	831	1.00	5.00	3.1095	0.97254
TD2	831	1.00	5.00	3.0168	1.03421
TD3	831	1.00	5.00	3.1215	0.95358
TD4	831	1.00	5.00	3.0975	0.97258
TD	831	1.00	5.00	3.0863	0.91818

Source: Data processed from SPSS 20.0.

Figure 6 shows that the agreement level is above 34.0%. This result indicated that most enterprises develop and promulgate a system of regulations and regulations governing the distribution of benefits and other activities related to employees' interests, such as labor rules, recruitment regulations, and employment regulations.

Table 4 showed that large enterprises with a long history of operation and advanced corporate governance regimes promulgate and implement regulations on the distribution of benefits. Many firms did not primarily issue stocks for small, miniature, or recently started businesses. The establishment of a comprehensive set of rules and regulations serves as the foundation for firms to effectively execute welfare systems for their employees. Employees are included in the salary list to get additional compensation in monetary value or matching presents during holidays, in addition to their regular paycheck. Furthermore, several organizations provide their employees additional benefits, including lunch allowances, parking reimbursements, and other allowances, such as mobile phone fees and business travel expenditures.

Figure 7 showed the agreement value is above 35%. This result indicated that performance evaluation had based on pre-planned scores correct from the time the content of the work was determined. Many companies choose a 5-point scale to evaluate. If a score of 5 is for the work performed to exceed expectations, then a score of 3 is for the expected performance. Senior managers also say the same sometimes. They even emphasize that the results of their work must be "strategic" and completed to make an essential contribution to the realization of the company's strategy.

The employee performance evaluation system gived results about the progress and errors of employees in performing work. Table 5 shows that the performance evaluation sheet will be the basis for employees to be motivated to complete the assigned tasks and better understand their work capacity when they can see their progress or create comparisons to compete with other colleagues. In addition, job performance outcomes facilitate managers in promptly identifying operational bottlenecks, facilitating the deployment of human resources as needed, adhering to predetermined timelines, and ensuring accurate cost estimation. This outcome will serve as proof for employees to evaluate their own

#### 12 NGA PHAN THI HANG

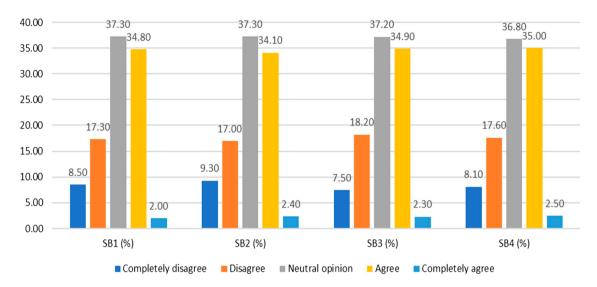


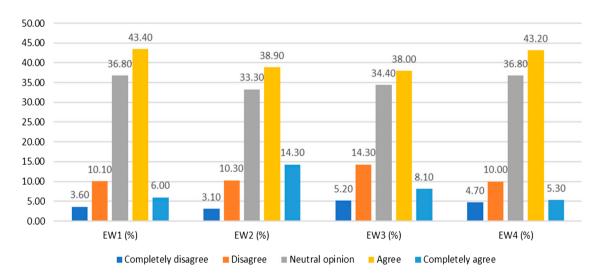
Figure 6. Frequency statistics results on salary, bonus, and welfare factors.

Source: Data processed from SPSS 20.0 and Excel.

Table 4. Descriptive statistics results on salary, bonus, and welfare factors.

Scales	N	Min	Max	Mean	Std. Deviation
SB1	831	1.00	5.00	3.0445	0.97149
SB2	831	1.00	5.00	3.0337	0.98852
SB3	831	1.00	5.00	3.0638	0.95792
SB4	831	1.00	5.00	3.0638	0.97290
SB	831	1.00	5.00	3.0514	0.93008

Source: Data processed from SPSS 20.0.



**Figure 7.** Frequency statistics results on the evaluation of work results factors. *Source:* Data processed from SPSS 20.0 and Excel.

**Table 5.** Descriptive statistics results on the evaluation of work results factors.

Scales	N	Min	Max	Mean	Std. Deviation
EW1	831	1.00	5.00	3.3815	0.88090
EW2	831	1.00	5.00	3.5090	0.96548
EW3	831	1.00	5.00	3.2948	0.98346
EW4	831	1.00	5.00	3.3442	0.90219
EW	831	1.00	5.00	3.3824	0.78335

Source: Data processed from SPSS 20.0.

performance and determine if they have performed exceptionally well and deserve the wage they get. It will enable employees to recognize and rectify any errors or shortcomings they may have.

#### 4.2. Testing Cronbach's alpha for factors affecting management of human resources

Table 6 demonstrated that Cronbach's alpha reliability coefficient just signifies the presence or absence of a relationship between the measurements. However, it does not provide information about variables. Calculating the correlation coefficient between the variable-total will aid in eliminating observed variables that have minimal impact on describing the idea being assessed. Alpha levels may be categorized as follows: a scale more than 0.8 is considered good, a range of 0.7 to 0.8 is considered useful, and a value of 0.6 or above may be employed if the study notion is novel or unique in the research setting. Extraction refers to the process of removing or obtaining something from a source or location. The sums of squared loadings is 85.267, and the KMO and Bartlett's test yields a result of 0.834.

In addition, Industrial Revolution 4.0 is changing the management, operation, and development process of small and medium enterprises. It can disrupt the labor market because, with automation, artificial intelligence gradually replaces humans, leaving millions of workers unemployed. That is one factor that directly impacts the trend of developing digital human resources, especially in small and medium-sized enterprises. Meanwhile, the digital economy operates based on the application of digital technology, and human knowledge and creativity are the main driving forces. Therefore, digital human resources must have full intellectual, knowledge, and cultural capacity to organize, manage, and operate the economy. Developing digital human resources is a decisive factor in successfully building a digital economy in Vietnam today.

## 4.3. Testing relationships for factors affecting management of human resources

Based on the results of testing the measurement model, the theoretical model, and the research hypotheses. The measurement model test results showed that all measurement concepts achieve reliability, discriminant validity, and convergent value. Besides, the theoretical model test shows that the hypotheses H1, H2, H3, H4, H5, H6, H7 did accept at the statistical significance level of 1%. Table 7 showed that these results indicated all factors affecting the management of human resources with a significance level of 1%. Finally, the management of human resources is an urgent issue of today, not only within an organization but also in countries' development strategies. Whether large or small, organizations must pay attention to human resources management. The human resource problem must always be answered for a new social enterprise like Vietnam.

Table 6. Testing Cronbach's alpha for factors affecting management of human resources.

Code	N	Cronbach's alpha
WE (WE1, WE2, WE3, WE4)	4	0.906
RL (RL1, RL2, RL3, RL4)	4	0.964
TD (TD1, TD2, TD3, TD4)	4	0.951
SB (SB1, SB2, SB3, SB4)	4	0.969
EW (EW1, EW2, EW3, EW4)	4	0.859
HR (HR1, HR2, HR3)	3	0.943

Source: Data processed from SPSS 20.0.

Table 7. Testing relationships for factors affecting the management of human resources.

	Relationship	S	Estimate	S.E	CR	Р	Results
SB	<	TD	0.121	0.035	3.416	***	Accepted
RL	<	TD	0.159	0.037	4.441	***	Accepted
HR	<	RL	0.105	0.028	3.651	***	Accepted
HR	<	WE	0.092	0.052	2.661	0.008	Accepted
HR	<	TD	0.537	0.031	17.253	***	Accepted
HR	<	SB	0.129	0.028	4.723	***	Accepted
HR	<	EW	0.210	0.035	5.875	***	Accepted

Source: Data processed from SPSS 20.0 and Amos.

The results presented in Figure 8 indicate that the evaluation of the magnitude of variables influencing human resource management comprises the following components: CMIN/DF = 3.485 (less than 5.0), GFI = 0.933 (more than 0.8), TLI = 0.969 (greater than 0.9), CFI = 0.975 (greater than 0.9), and RMSEA = 0.055 (less than 0.08). The SEM evaluation revealed that all five factors significantly influenced the management of human resources at a significance level of 1%.

#### 4.4. Testing Bootstrap 20.000 sample for factors affecting management of human resources

Table 8 demonstrates that the Bootstrap approach is implemented by taking N repeated samples. The average of N samples (20,000 samples) provides an estimate that is typically in close proximity to the population estimate. The author's belief in the model estimates increases as the discrepancy between the mean calculated by Bootstrap and the model estimate using the original sample decreases.

## 5. Conclusions and policy implications

#### 5.1. Conclusions

Industry 4.0 is vigorously promoting the transition from a resource-based economy to a knowledge-based one with the internet and digital pillars as the main pillars. The digital economy was born to replace the traditional economy. Therefore, there is a need to change the labor structure in which digital human resources have focused and developed. The article clarifies digital human resources' concept, content, and characteristics. The results showed that five components are significant to managing enterprises'

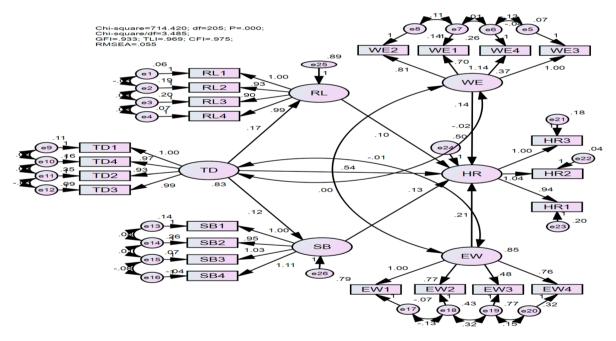


Figure 8. Testing factors affecting management of human resources. Source: Data processed from SPSS 20.0 and Amos.

Table 8. Testing Bootstrap 20.000 sample for factors affecting management of human resources.

	Parameter		SE	SE-SE	Mean	Bias	SE-Bias
SB	<	TD	0.051	0.000	0.121	0.002	0.001
RL	<	TD	0.038	0.000	0.164	-0.002	0.000
HR	<	RL	0.025	0.000	0.102	0.002	0.000
HR	<	WE	0.048	0.000	0.141	0.003	0.001
HR	<	TD	0.038	0.000	0.539	0.000	0.000
HR	<	SB	0.036	0.000	0.127	-0.005	0.000
HR	<	EW	0.036	0.000	0.210	0.002	0.000

Source: Data processed from SPSS 20.0 and Amos.

human resources in Vietnam based on surveying 850 managers to test the SEM model. Five factors affect the management of human resources with a significance level of 1.0 percent. However, to own digital human resources, it is necessary to implement a triangle of digital control of human resources, including a critical role in leading the enterprises in terms of mechanisms, policies, and environment. The result of digital technology is the central factor of enterprises in investment, transformation, and adaptation to digital technology in all production, business, and service activities. Training institutions and each human resource must be proactive, integrated, capable of mastering digital technologies, and quickly adapt to technology changes. Thus, to develop human resources in the context of integration, digital economy, and sustainable development, it is necessary to maximize resources to create motivation for the development and overcome weaknesses in factors affecting the specific human resources of the enterprise.

## 5.2. Policy implications

Human resources increasingly occupy a more important position in every small and medium enterprise. Human resource development for SMEs can only be successful through reasonable corporate policies. In Vietnam, in recent times, the issue of human resource development policies for SMEs has always been the focus, and a series of human resource development policies for SMEs need to be introduced with the goal of solutions and roadmaps. Appropriate development aims to build human resources for SMEs with reasonable structure, quantity, and quality, sufficient capacity, professional qualifications, and ethical qualities to meet the requirements and tasks of industrialization, modernizing the country, and integrating and developing the international economy. Therefore, the author had the following policy recommendations mentioned below.

- 1. Improve (TD): training and development, this factor has an average value of 3.0863; the standardized estimate is 0.537 with sig. 0.0001 (Tables 3 and 7). The research result showed that training and development affect the management of human resources with a significance of 1%, which is the same result as that of many studies (Carnevale & Hatak, 2020; Pakdel, 2016). The training and management of human resources is an essential task because it contributes to its development. However, enterprises must find the proper training and management of the human resources process. On-thejob training is the direct training and management of human resources in the workplace. Learners will absorb the knowledge and practical experience imparted and guided by longtime staff. The advantage of this training solution is that the training content is attached to the job, so students can easily absorb and master the necessary skills for the job. Enterprises can also save maximum training costs. Internship: This is a popular method of training and developing human resources that almost every business applies. The internship method is usually for fresh graduates who do not have much experience. When participating in an internship in an enterprise, interns will have a more practical understanding of the job and accumulate the necessary skills. Enterprises organize training classes: Human resource training and development courses held internally by businesses for their employees are a common form of training that almost every industry applies. Training content is usually specialized knowledge for the job. Each enterprise builds a process of training and developing human resources following specific characteristics. Lecturers can be senior leaders of enterprises or lecturers from universities invited by enterprises. Online training is considered the most optimal human resource training and development solution in the current digital technology era. With just a smartphone, laptop, or Ipad, learners can join the course of their business anytime, anywhere. The online training model brings many benefits to companies and employees. Enterprises set up a human resource apparatus adapted to high technology. Enterprises must set up a human resource apparatus, especially the management level, to adapt to the high-tech era. Thus, the internal communication of enterprises needs to focus on so that employees understand and master the skills to meet the high requirements of the 4.0 period.
- 2. Improve (EW): evaluation of work results, this factor has an average value of 3.3824; the standardized estimate is 0.210 with sig. 0.0001 (Tables 5 and 7). The research result showed that evaluation of work results affects the management of human resources with a significance of 1%, which is the same result as that of many studies (Adikaram et al., 2021; Mohanad & Ibrahim, 2019; Zegir & Ymer,

2019). Effective performance evaluation method is one of the critical factors to help enterprises encourage and motivate their employees and improve the working quality of the workforce. It is not only the best way to know the performance of employees, but also a way to collect feedback on the activities in the company evaluate whether employees are working actively towards the goal themselves and what the business can do to increase employee engagement. Management by objectives (MBO): This is the simplest performance appraisal method. In this method, managers will set expected target metrics then track and compare employee results. Sales quotas are a form of MBO. This method is excellent because it is easy to follow and can identify cause-and-effect relationships in employee performance. Self-assessment is an important activity to make your performance appraisal process more effective. When done correctly, it can provide many essential inputs to the organization. This performance appraisal method offers an opportunity for employees to take an active role in their evaluation process. Thus, employees did give a voice instead of simply being the recipients of management feedback. When self-assessment did develop as an integral part of the evaluation process, it encouraged employees to continuously evaluate themselves throughout the year resulting in the maximum achievement of company goals. Check job performance. The suitable form of testing enhances consolidation and allows everyone to operate new knowledge. Written or multiple-choice tests help employees reinforce job theories while testing practical skills that demonstrate employee proficiency. The person who assesses this test must be an expert in these jobs and skilled enough to communicate the meaning of the results to upper management. Collecting data and seeing the right metrics allows you to continuously improve your employee performance review processes and ensure employees can stay on course. Enterprises can use six methods combined with management software to design a solid set of assessment and management tools for you.

- 3. Improve (SB): salary, bonus, and welfare, this factor has an average value of 3.0514; the standardized estimate is 0.129 with sig. 0.0001 (Tables 4 and 7). The research result showed that salary, bonus, and welfare affect the management of human resources with a significance of 1%, which is the same result as that of many studies (Butterick & Charlwood, 2021; Sanyal & Hisam, 2018). Employees had attracted by the salary and benefits policies they receive when working as a worthy reward for their efforts. The more will make them happier. Particularly for business administrators, the budget for these two items is considered an investment, which, once invested, must be profitable. So, investing in salary or benefits for employees. Salary is widely regarded as the primary determinant for workers when selecting a job. If employee perks are seen as an indicator of a reputable organization, remuneration is regarded as an indicator of an individual's worth in the workforce, as it is often based on their abilities. Allocating funds towards compensation for roles, particularly those requiring highly skilled personnel, is seen an essential investment for the firm to acquire exceptional individuals who can enhance its operations. Employee wellbeing is a primary issue for employees and serves as a powerful incentive to recruit talented individuals to the company. Certain anticipated discretionary employee perks, such as additional paid and unpaid time off, profit-based dividend sharing, top-tier medical insurance coverage, food allowances, and the provision of state-of-the-art work equipment, have progressively become customary and nearly essential advantages for highly skilled employees. They were building a business system with the distance coefficient: A group of titles according to the criteria of jobs with the exact nature and job qualifications and responsibilities. Therefore, it is necessary to prepare a specific job description about training qualifications, professional knowledge, experience, skills, attitudes, etc. On that basis, the business owner will determine the number of points corresponding to each title and position. And importantly, the distance coefficient between tags must be appropriate. Enterprises observe the nature of work, and each employee must apply the proper forms of payment. For example, administrative positions paid a fixed salary; positions that directly generated revenue delivered flat wages. Businesses use a combination of these two types of payment methods. Enterprises should specify an appropriate rate or fixed price to create conditions and ensure income for employees. In addition, they were achieving different job completion conditions with additional bonus rates to maximize the capacity of employees.
- 4. Improve (RL): recruitment and selection of labor, this factor has an average value of 3.0650; the standardized estimate is 0.105 with sig. 0.0001 (Tables 2 and 7). The research result showed that

recruitment and selection of labor affect the management of human resources with a significance of 1%, which is the same result as that of many studies (Lim et al., 2020; Zegir & Ymer, 2019). In the current highly competitive job market, the task of locating competent people who fulfill the desired standards is a multifaceted challenge, requiring significant investment of time and resources for organizations. Nevertheless, there exist strategies to assist companies in attaining their objectives while simultaneously reducing costs and saving time. Create an elaborate and comprehensive recruitment procedure: The recruiting process will have a substantial impact on the efficiency of the enterprise's human resources since it is a critical stage in identifying and selecting highly skilled individuals who are well-suited for the company's employment positions. Developing a meticulous and comprehensive recruitment procedure can enable you to prevent errors while hiring staff. The recruitment process of organizations and enterprises can vary significantly, contingent upon the organizational structure and regulatory framework of the recruiting entity. However, the fundamental aspect is that recruiters must consistently and thoroughly plan for every phase of the recruiting process, with the objective of efficiently evaluating and identifying highly qualified individuals - through the use of concise and precise job descriptions. The job description is a crucial component of the job posting. An effective job description should include the assigned duties for each position, the requisite professional abilities, the desired personality traits, and the essential attributes necessary for successfully fulfilling the job responsibilities and working circumstances. Writing a vague and ambiguous description might result in the candidate lacking comprehension of the specific requirements for the job you are seeking to fill. The more the clarity and level of detail in the report, the higher the likelihood of successfully recruiting competent staff and effectively filtering out inappropriate individuals. Internet-based hiring process: The advancement of the internet and information technology enables employers to access a rapid and extensive channel of information. The majority of employers concur that internet recruiting is the swiftest and most cost-effective method for selecting workers for their organization. Recruitment websites provide the option for users to actively select from candidate profiles. Conduct the interview list in a more efficient manner by utilizing online platforms. This aspect facilitates cost and labor efficiency in the recruiting process.

5. Improve (WE): working environment, this factor has an average value of 2.3833; the standardized estimate is 0.092 with sig. 0.008 (Tables 1 and 7). The research result showed that working environment affect the management of human resources with a significance of 1%, which is the same result as that of many studies (Anlesinya & Susomrith, 2020; Collings et al., 2021). Each employee consistently seeks and desires to encounter the optimal working atmosphere within the organization. The working environment refers to the physical and non-physical factors that affect the organization and functioning of the operational system within a company. Excellent facility: The primary consideration that firms must not overlook is the establishment of appropriate infrastructure. Facilities, in essence, refer to office equipment that is fully equipped to satisfy the functional requirements of employees, including computers, printers, fax machines, and so on. Indispensable for any firm, regardless of the industry. In addition, an optimal working environment fosters a positive work ethic among employees. Subsequently, individuals have the liberty to generate, demonstrate their abilities, and fulfill the expectations of supervisors. Interactions between leaders and employees: It enhances the rapport between leaders and employees. An effective leader is meticulous and motivates people to meet deadlines, resulting in enhanced productivity. The leader must possess the ability to comprehend the desires of their subordinates, swiftly assume the appropriate course of action, and guide the implementation of the correct strategy. Employees are required to demonstrate both respect and devotion towards the company. Establishing and fostering a strong connection is crucial for the development of this relationship. A strong correlation exists between the proximity of the connection between leaders and employees and the level of job excellence. The firm will transform into an organization characterized by a positive and cohesive culture, establishing a strong basis for achieving success. Create a collaborative and inclusive work environment: Cultivating a tranquil ambiance is crucial in the contemporary, constantly changing culture. A conducive work atmosphere allows people to openly express their personal opinions, so enabling them to showcase their full potential. Every individual can express their viewpoint in a sincere manner. An open working environment is a receptive and adaptable space that fosters organizational growth by



embracing change. Creating a pleasant work environment will motivate employees to generate more value for the firm. Following the epidemic season, the shift towards working online in a digital environment is an unavoidable and prevailing tendency. When the Covid-19 pandemic is spreading rapidly with complicated developments, most people's concern is the safety of themselves and their loved ones, limiting going out and limiting contact. Most businesses have built online working plans for their staff to maintain work performance. This recommendation also makes it necessary for companies to create a digital working environment, helping businesses build a more effective remote working strategy.

#### 6. Limitations

Limitations of the study and directions for further research: it will contribute to businesses and serve as a premise for policymakers to have a more comprehensive vision of the context of human resources management, especially the factors that affect the management of human resources. Management of human resources of enterprises in Vietnam in the digital economy; besides the successful contributions, the study also has the following limitations: Due to restrictions of time, conditions, funding, and research capacity, this study only focuses on the scope of enterprises, in general, did not separate from state-owned or private enterprises. For this study, we only focus on analyzing 05 factors from the test results that affect enterprises' management of human resources. However, there are still many other factors influencing the growth of enterprises. Human resources, so further research is needed to supplement and perfect it. This study currently only approaches business owners, and there are many other approaches, such as the direct approach to employees or researchers who make policies for businesses to obtain information. More positive results on managing human resources are also a limitation for further research. There is the contribution of business owners, the attention and support from state management agencies, and the proposed functions policy ideas. Additional research will need to add more factors affecting the management of human resources in the new period.

#### **Acknowledgments**

The author would like to thank managers and the Rector of the University of Finance - Marketing (UFM), HCMC, Vietnam.

#### **Disclosure statement**

No potential conflict of interest was reported by the author.

#### **Funding**

This work was supported by the University of Finance - Marketing (UFM), Grant no. 2217/QĐ-ĐHTCM, Date 03-12-2021, Vietnam.

#### About the author



Nga Phan Thi Hang is an Associate Professor, Dean of Science Management Department, University of Finance - Marketing (UFM), Vietnam. I graduated Doctor in Finance and Banking from the Banking University of Ho Chi Minh City. I am teaching banking financial subjects and have published many international papers on credit risk management. I also serve as a reviewer for several accredited and highly-ranked international journals. Moreover, I focus more intensely on improving the competitiveness of tourism enterprises and the management of human resources. Email: phannga@ ufm.edu.vn

#### **ORCID**

Nga Phan Thi Hang http://orcid.org/0000-0003-1143-2741

#### References

- Adeyi, A. O., Apansile, E. K., Okere, W., & Okafor, L. I. (2018). Training and development and organizational performance: Standpoint from Private tertiary institutions in Nigeria. Journal of Economics, Management and Trade, 21(12), 1-21. https://doi.org/10.9734/JEMT/2018/44895
- Adikaram, A. S., Naotunna, N., & Priyankara, H. P. R. (2021). Battling COVID-19 with human resource management bundling. Employee Relations: The International Journal, 43(6), 1269-1289. https://doi.org/10.1108/ER-08-2020-0390
- Aktar, S. (2012). The impact of rewards on employee performance in commercial banks of Bangladesh: An empirical study. IOSR Journal of Business and Management, 6(2), 9-15. https://doi.org/10.9790/487X-0620915
- Al-Haddad, S., & Kotnour, T. (2015). Integrating the organizational change literature: A model for successful change. Journal of Organizational Change Management, 28(2), 234-262. https://doi.org/10.1108/JOCM-11-2013-0215
- Anlesinva, A., & Susomrith, P. (2020). Sustainable human resource management: A systematic review of a developing field. Journal of Global Responsibility, 11(3), 295-324. https://doi.org/10.1108/JGR-04-2019-0038
- Appelbaum, S. H., Cameron, A., Ensink, F., Hazarika, J., Attir, R., Ezzedine, R., & Shekhar, V. (2017). Factors impact the success of an organizational change: a case study analysis. Industrial and Commercial Training, 49(5), 213-230. https://doi.org/10.1108/ICT-02-2017-0006
- Asfaw, A. M., Argaw, M. D., & Bayissa, L. (2015). The impact of training and development on employee performance and effectiveness: A case study of district five administration office, bole sub-city, Addis Ababa, Ethiopia. Journal of Human Resource and Sustainability Studies, 3(4), 188-202. https://doi.org/10.4236/jhrss.2015.34025
- Basil, T., & Helen, T. (2013). Performance on the right-hand side: Organizational performance as an antecedent to management control. Qualitative Research in Accounting and Management, 3(4), 316-346. https://doi.org/10.1108/ QRAM-10-2012-0043
- Branicki, L., Kalfa, S., & Brammer, S. (2022). Surviving Covid-19: The role of human resource managers in shaping organizational responses to societal paradox. British Journal of Management, 33(1), 410-434. https://doi. org/10.1111/1467-8551.12570
- Butali, P., & Njoroge, D. (2017). Training and development and organizational performance: The moderating effect of organizational commitment. International Journal of Scientific Research and Management (IJSRM), 5(11), 7381-7390. https://doi.org/10.18535/ijsrm/v5i11.06
- Butterick, M., & Charlwood, A. (2021). HRM and the COVID-19 pandemic: How can we stop making a bad situation worse? Human Resource Management Journal, 31(4), 847-856. https://doi.org/10.1111/1748-8583.12344
- Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. Journal of Business Research, 116, 183-187. https://doi.org/10.1016/j.jbusres.2020.05.037
- Chang, E., Chin, H., & Lee, J. W. (2022). Pre-crisis commitment human resource management and employees' attitudes in a global pandemic: The role of trust in the government. Human Resource Management, 61(3), 373-387. https:// doi.org/10.1002/hrm.22097
- Collings, D. G., Nyberg, A. J., Wright, P. M., & McMackin, M. (2021). Leading through paradox in a Covid-19 world: Human resources comes of age. Human Resource Management Journal, 31(4), 819-833. https://doi. org/10.1111/1748-8583.12343
- Cooke, F. L., Xiao, M., & Chen, Y. (2020). Still in search of strategic human resource management? A review and suggestions for future research with China as an example. Human Resource Management, 60(1), 89-118. https://doi. org/10.1002/hrm.22029
- Cunningham, P. W., Lynham, S. A., & Weatherly, G. (2006). National management of human resources in transitioning societies in the developing world: Philippines. Advances in Developing Human Resources, 8(1), 62-83. https://doi. org/10.1177/1523422305283150
- Dobrovič, J., & Timková, V. (2017). Examination of factors affecting the implementation of organizational changes. Journal of Competitiveness, 9(4), 5-17. https://doi.org/10.7441/joc.2017.04.01
- Ererdi, C., Nurgabdeshov, A., Kozhakhmet, S., Rofcanin, Y., & Demirbaq, M. (2021). International HRM in the context of uncertainty and crisis: A systematic review of literature (2000-2018). The International Journal of Human Resource Management, 33(12), 2503-2540. https://doi.org/10.1080/09585192.2020.1863247
- Fee, A., & McGrath-Champ, S. (2017). The role of human resources in protecting expatriates: Insights from the international aid and development sector. The International Journal of Human Resource Management, 28(14), 1960–1985. https://doi.org/10.1080/09585192.2015.1137617
- Frank, N. K. O., & Mridula, M. (2018). Measuring the impact of human resources management practices on employee performance in small and medium scale enterprises. European Journal of Training and Development, 42(7/8), 517-534. https://doi.org/10.1108/EJTD-07-2017-0061
- Hair, J., Anderson, R., Tatham, R., & Black, W. (2018). Multivariate data analysis. Prentice-Hall.



- Harney, B., & Alkhalaf, H. (2021). A quarter-century review of HRM in small and medium-sized enterprises (SMEs): Capturing what we know, and exploring where we need to go. Human Resource Management, 60(1), 5-29. https:// doi.org/10.1002/hrm.22010
- Hasler, G. M., Thompson, M. D., & Schuler, M. (2006). Brazil's national management of human resources in transitioning societies in the developing world. Advances in Developing Human Resources, 8(1), 99-115. https://doi. org/10.1177/1523422305283075
- Ikinci, S. S. (2014). Organizational change: Importance of leadership style and training. Management and Organizational Studies, 1(2), 122–128. https://doi.org/10.5430/mos.v1n2p122
- Igbal, Q., & Ahmad, N. H. (2020). Sustainable development: The colors of sustainable leadership in the learning organization. Sustainable Development, 29(1), 108-119. https://doi.org/10.1002/sd.2135
- Igbal, N., Ahmad, N., Haider, Z., Batool, Y., & Ul-Ain, Q. (2014). Impact of performance appraisal on employee's performance involving the moderating role of motivation. Oman Chapter of Arabian Journal of Business and Management Review, 3(1), 37-56. https://doi.org/10.12816/0002354
- Karia, N., & Asaari, M. H. (2006). The effects of total quality management practices on employees' work-related attitudes. The TQM Magazine, 18(1), 30-43. https://doi.org/10.1108/09544780610637677
- Katarzyna, T. K. (2019). Management of human resources in SMEs within the European social fund in Poland research findings and international perspective. Management Sciences, 24(2), 26-40. https://doi.org/10.15611/ ms.2019.2.04
- Katou, A. A. (2009). The impact of human resources management on organizational performance: Test of a causal model. Journal of Behavioral and Applied Management, 10(3), 335-342. https://doi.org/10.21818/001c.17264
- Ke, J., Chermack, T., Lee, Y., & Lin, J. (2006). National management of human resources in transitioning societies in the developing world: the People's Republic of China. Advances in Developing Human Resources, 8(1), 28-45. https:// doi.org/10.1177/1523422305283056
- Kotey, B., & Folker, C. (2007). Employee training in SMEs: effect of size and firm type family and nonfamily. Journal of Small Business Management, 45(2), 214-238. https://doi.org/10.1111/j.1540-627X.2007.00210.x
- Kyndt, E., Dochy, F., Michielsen, M., & Moeyaert, B. (2009). Employee retention: Organisational and personal perspectives. Vocations and Learning, 2(3), 195-215. https://doi.org/10.1007/s12186-009-9024-7
- Lim, D. S., Morse, E. A., & Yu, N. (2020). The impact of the global crisis on the growth of SMEs: A resource system perspective. International Small Business Journal: Researching Entrepreneurship, 38(6), 492-503. https://doi. org/10.1177/0266242620950159
- Martin, N., & Coetzee, M. (2007). Organizational culture, employee satisfaction, perceived leader emotional competency and personality type: An exploratory study in a South African engineering company. SA Journal of Human Resource Management, 5(2), 20-32. https://doi.org/10.4102/sajhrm.v5i2.116
- McClean, E., & Collins, C. J. (2019). Expanding the concept of fit in strategic human resource management: An examination of the relationship between human resource practices and charismatic leadership on organizational outcomes. Human Resource Management, 58(2), 187-202. https://doi.org/10.1002/hrm.21945
- Mclean, G. N. (2006). National management of human resources: A focused study in transitioning societies in developing countries. Advances in Developing Human Resources, 8(1), 3-11. https://doi.org/10.1177/1523422305283054
- Minbaeva, D. B., & Navrbjerg, S. E. (2023). Strategic human resource management in the context of environmental crises: A COVID-19 test. Human Resource Management, 62(6), 811-832. https://doi.org/10.1002/hrm.22162
- Mohanad, A. K., & Ibrahim, J. H. (2019). The Impact of Management of human resources on Employee Performance and Organizational Effectiveness. Management Dynamics in the Knowledge Economy, 7(3), 307-322. https://doi. org/10.25019/MDKE/7.3.02
- Okoye, P. V. C., & Ezejiofor, R. A. (2013). The effect of human resource management on organizational productivity. International Journal of Academic Research in Business and Social Sciences, 3(10), 250-268. https://doi.org/10.6007/ IJARBSS/v3-i10/295
- Pakdel, A. (2016). An investigation of the difference in the impact of demographic variables on employees' resistance to organizational change in government organizations of Khorasan Razavi. Procedia - Social and Behavioral Sciences, 230, 439-446. https://doi.org/10.1016/j.sbspro.2016.09.055
- Ram, M., McCarthy, I., Green, A., & Scully, J. (2022). Towards a more inclusive human resource community: Engaging ethnic minority microbusinesses in human resource development programmes targeted at more productive methods of operating. Human Resource Management Journal, 32(3), 540-554. https://doi.org/10.1111/1748-8583.12416
- Rani, P., & Khan, M. S. (2014). Impact of management of human resources on organizational performance. Indian Journal of Applied Research, 4(12), 85-87. https://doi.org/10.36106/ijar
- Rein, C., Jan, V., & Wilfred, U. (2012). Leading a successful change intervention in a modern organization: Key elements to consider. African Journal of Business Management, 6(51), 12068-12075. https://doi.org/10.5897/ AJBM12.1444
- Rosenberg, S., & Mosca, J. (2011). Breaking down the barriers to organizational change. International Journal of Management & Information Systems (IJMIS), 15(3), 139. https://doi.org/10.19030/ijmis.v15i3.4650
- Sanyal, S., & Hisam, M. W. (2018). Impact of training and development on the performance of employees A comparative study on select banks in sultanate of Oman. International Journal of Scientific Research and Management, 6(3), 191–198. https://doi.org/10.18535/ijsrm/v6i3.em02



Stuart, M., Spencer, D. A., McLachlan, C. J., & Forde, C. (2021). COVID-19 and the uncertain future of HRM: Furlough, job retention and reform. Human Resource Management Journal, 31(4), 904–917. https://doi. org/10.1111/1748-8583.12395

Uraon, R. S. (2017). Examining the impact of HRD practices on organizational commitment and intention to stay within selected software companies in India. Advances in Developing Human Resources, 20(1), 11-43. https://doi. org/10.1177/1523422317741691

Zacher, H., & Rudolph, C. W. (2022). Researching employee experiences and behavior in times of crisis: Theoretical and methodological considerations and implications for human resource management. German Journal of Human Resource Management: Zeitschrift Für Personalforschung, 36(1), 6-31. https://doi.org/10.1177/23970022211058812

Zegir, V., & Ymer, H. (2019). The impact of human resource management on small and medium enterprises (SMEs) performance: The case of Kosovo. Journal of Economics and Management Sciences, 2(2), 45-54. https://doi. org/10.30560/jems.v2n2p45

Zhang, J. A., & Edgar, F. (2021). HRM systems, employee proactivity and capability in the SME context. The International Journal of Human Resource Management, 33(16), 3298-3323. https://doi.org/10.1080/09585192.2021.1905682

## **Appendix**

Table A1. Research questionnaires.

		5-p	oint Likert	scale	
Factors affecting enterprises' human resource management	(1)	(2)	(3)	(4)	(5)
WE1: Employees work professionally and seriously	(1)	(2)	(3)	(4)	(5)
WE2: The workplace has all the necessary equipment for employees	(1)	(2)	(3)	(4)	(5)
WE3: Employees are pleasant and comfortable talking to each other to perform their jobs	(1)	(2)	(3)	(4)	(5)
WE4: Business owners helped and supported employees with difficulties at work and were treated fairly	(1)	(2)	(3)	(4)	(5)
RL1: Enterprises announce recruitment information widely	(1)	(2)	(3)	(4)	(5)
RL2: The recruitment system of the enterprise is guaranteed high science	(1)	(2)	(3)	(4)	(5)
RL3: A clear job description for employees and provide complete job information to employees right from the moment they had recruited	(1)	(2)	(3)	(4)	(5)
RL4: Employees recruited entirely based on power	(1)	(2)	(3)	(4)	(5)
TD1: Employees have many opportunities to develop and advance their work	(1)	(2)	(3)	(4)	(5)
TD2: Employees have the opportunity to study and create at the enterprise	(1)	(2)	(3)	(4)	(5)
TD3: The business helps employees develop the skills to get the job done	(1)	(2)	(3)	(4)	(5)
TD4: Businesses encourage learning to apply to work and train the skills necessary to do the job well	(1)	(2)	(3)	(4)	(5)
SB1: The salary payment in the enterprise is consistent with the performance of the company's working rate	(1)	(2)	(3)	(4)	(5)
SB2: The employee's salary is commensurate with the work and duties	(1)	(2)	(3)	(4)	(5)
SB3: Enterprises implement reward regimes and are accurate to the commitment to the employee	(1)	(2)	(3)	(4)	(5)
SB4: Policy on rewards and benefits clear notice to employees and reward and recognition based on enterprise results	(1)	(2)	(3)	(4)	(5)
EW1: Evaluation criteria associated with work and results of employees	(1)	(2)	(3)	(4)	(5)
EW2: The enterprise has a straightforward job evaluation process for employees and is fair and objective. Based on the capacity assessment as the basis for decisions	(1)	(2)	(3)	(4)	(5)
EW3: The enterprise has promotions and salary increases	(1)	(2)	(3)	(4)	(5)
EW4: Job evaluation stimulates employees to improve their working capacity	(1)	(2)	(3)	(4)	(5)
HR1: The current workforce is very stable	(1)	(2)	(3)	(4)	(5)
HR2: Professional qualifications of employees	(1)	(2)	(3)	(4)	(5)
HR3: Ethics and behavior of employees and ability to handle work	(1)	(2)	(3)	(4)	(5)

Note: A 5-point Likert scale states the level of agreement in five points. The 5-point Likert scale consists of the below points - (1) Strongly Disagree; (2) Disagree; (3) Neither Agree nor Disagree; (4) Agree; (5) Strongly Agree.