


Article

Risk Management: Exploring Emerging Human Resource Issues during the COVID-19 Pandemic

Yifan Zhong ¹ , Yameng Li ², Jian Ding ^{3,*} and Yiyi Liao ²¹ School of Management and Marketing, Curtin University, Perth, WA 6102, Australia; yifan.zhong@curtin.edu.au² Department of Research, International Engineering and Technology Institute, Denver, CO 80202, USA; yolanda.li828@gmail.com (Y.L.); Yiyi.liao@hotmail.com (Y.L.)³ College of Economics and Management, Tianjin University of Science and Technology, Tianjin 300457, China

* Correspondence: chante@mail.tust.edu.cn

Abstract: The unanticipated coronavirus disease 2019 (COVID-19) pandemic has hit global business heavily, disrupting the management of human resources across numerous industries. More than 500 articles (indexed in Scopus and the Web of Science) on the impact of the COVID-19 outbreak on emerging human resources issues and related practices were published from 1 January 2020 to 31 January 2021. In this study, we conduct a systematic literature review on emerging studies in the business and management field to explore what the emerging human resource issues are during the COVID-19 pandemic and propose related practices to solve these issues. The analysis of the published literature identifies nine main human resource issues across 13 industries. The findings of this study suggest that COVID-19 has enormous impact on conventional human resource management and requires the theoretical and empirical attention of researchers. The propositions nominate related human resource practices to deal with emerging human resources issues and identify several research venues for future studies in this field.

Keywords: human resource issues; human resource practices; risk management; COVID-19



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1. Introduction

The outbreak of the coronavirus disease 2019 (COVID-19) pandemic has forced organisations to confront unforeseen risks (Yue et al. 2020a) and caused numerous troubles for business operations. Management of human resources (HR) reflects the strength of capabilities in corporate governance and organisational resilience facing mass public crises. Emerging HR issues have become notable concerns for organisations while overseeing risk management. Researchers around the world, such as Verma and Gustafsson (2020), have provided diverse perspectives on the impact of COVID-19 on the business and management research field. Few scholars (Minbaeva 2020; Cooke et al. 2021) are looking at emerging HR issues caused by the pandemic.

It has become consensus among scholars that organisations must be more vigilant and resilient in the face of public health emergencies. The impact of the COVID-19 epidemic has brought this challenge to an unprecedented level not only in China's economy but also in the global economy (Yue et al. 2020b). The spread of COVID-19 has lasted more than a year, and its effect on HR issues will remain in the long run. The great challenge organisations are facing today is not a single event but a new normal that offers different research venues for organisational scholars and practitioners. Emerging HR issues can be quite diverse in the current environment, where commonly discussed problems have been exacerbated by the outbreak of COVID-19 and followed by a severe economic crisis. Such problems include performance adjustment and employee wellbeing (Carnevale and Hatak 2020); the struggle of organisations to pay the same remuneration to staff given that employees cannot perform as effectively as they could before COVID-19 (Demyen and Lala-Popa 2013); difficulty in

instilling confidence in employees (Montague et al. 2016); and increased internal and external conflicts during an unexpected large-scale public crisis (Marchington 2015). Such a wide range of emerging HR issues and related profound influences caused by the pandemic would indeed require further attention and discussion. The first research question arises: what are the emerging HR issues during the COVID-19 pandemic?

The effectiveness of HR practices is critical for organisations, especially amidst crises, which is why organisations must prepare a contingency plan as a precautionary practice for managing the risks associated with emerging HR issues and their impacts on business (Carnevale and Hatak 2020). One possible measure is for organisations to invest in human capital through training before a crisis hits (Vardarlier 2016). The effectiveness of HR practices measures organisations' capabilities to respond to emerging HR issues. During the unusual circumstances of the pandemic, the goal for organisations is to use effective and efficient HR practices to deal with COVID-19's impact and reduce organisational vulnerability. The second research question arises: what are the related HR practices used to solve emerging HR issues during the COVID-19 pandemic?

The healthcare sector, which represents the front line of reaction to and management of the pandemic, has drawn much research interest. Studies related to health care have focused on nursing staff, first aid, isolation, and emergency care (Casafont et al. 2021). Other researchers have focused on the tourism, hospitality, and international logistics industry (Li et al. 2021b; Hao et al. 2020; Loske 2020). The chief limitation of existing research is the lack of consideration of industry heterogeneity, which, in this context, refers to how the management of emerging HR practices and their potential impacts varies among different industries. As an example, fly-in fly-out workers, who are mostly from the mining and petroleum industries, have recently become a research focus (Nandi et al. 2021). Their interstate/inter-site travels have created many health risks and require much effort in terms of coordination and reaction to ever-changing state border policies (Djalante et al. 2020). Although the current focus of human resource management (HRM) is on managing the health and safety of employees in general (De Cieri and Lazarova 2020), the lessons learned from other issues and measures have proven valuable and will be beneficial to the post-pandemic world (Adam et al. 2021). This article aims to address the issue by reviewing research conducted on emerging HR issues across industries affected by the COVID-19 pandemic. The development of new-generation communication technologies such as artificial intelligence, machine learning, cloud computing, and the Internet of Things has aided innovation in HR practices especially during the pandemic (Aurelia and Momin 2020). Whether the potential HR practices can be continuously optimised indicates an organisation's ability to dynamically allocate HR, which has the most direct impact on the outcome of emergency management impact. The third research question arises: can related HR practices be used to solve HR issues across different industries?

To help researchers and practitioners understand the emerging HR issues and related HR practices during the COVID-19 pandemic, this study aims to explore emerging HR issues and related HR practices across various industries. To reach these research objectives, this study first conducts a systematic literature review about the emerging HR issues during the COVID-19 pandemic in the business and management field. It then analyses the related HR practices to solve the emerging HR issues. Lastly, the study develops propositions to guide future research. It can be described as a prescriptive study that reviews 79 articles related to HR issues under the impact of COVID-19 and aims to address the research questions by reviewing research conducted on emerging HR issues across industries affected by the COVID-19 pandemic.

2. Methodology of Review

2.1. Research Methods

A systematic literature review (SLR) is a systematic, clear and reproducible method of confirming, evaluating and synthesising the work that researchers, scholars and industry have done and recorded (Bhimani et al. 2019). Its purpose is to avoid the uncertainty of the

results caused by the limitations of the research object, research method and sample selection of certain studies (Adams et al. 2017). During the COVID-19 period, the management of emerging HR issues has attracted wide attention. This paper carries out a systematic review of the literature based on the nature of this study (Petticrew and Roberts 2008; Kitchenham et al. 2009). It aims to explore emerging HR issues during the epidemic period and provide implications that will guide researchers and organisations toward effective HR practices.

We used SLR following the van Dinter et al. (2021) protocol and modified into the following steps: research questions specifications, research identification, literature search, selection review, data extraction, data synthesis and review writing; ensuring the standardisation, innovation and operability of the method. Therefore, it has developmental value to the research topic and research method system itself. In addition, SLR is driven by the research questions and adopts the standardised literature selection and analysis techniques, knowledge innovation can be realised. This paper uses SLR to explore the effects of COVID-19 pandemic on HR issues and discusses the relevant HR practices.

Articles in this study were identified through a search in the Scopus and Web of Science (WoS) databases, which are among the most widely used and recognised academic databases and provide wide coverage of high-quality peer-reviewed journals in the business and management fields (De Jesus et al. 2018; Harzing and Alakangas 2016). In addition, our approach follows the procedures of a recent systematic review (Bhimani et al. 2019; De Jesus et al. 2018; Lu et al. 2018). Therefore, the research path of this paper is as follows (Figure 1):

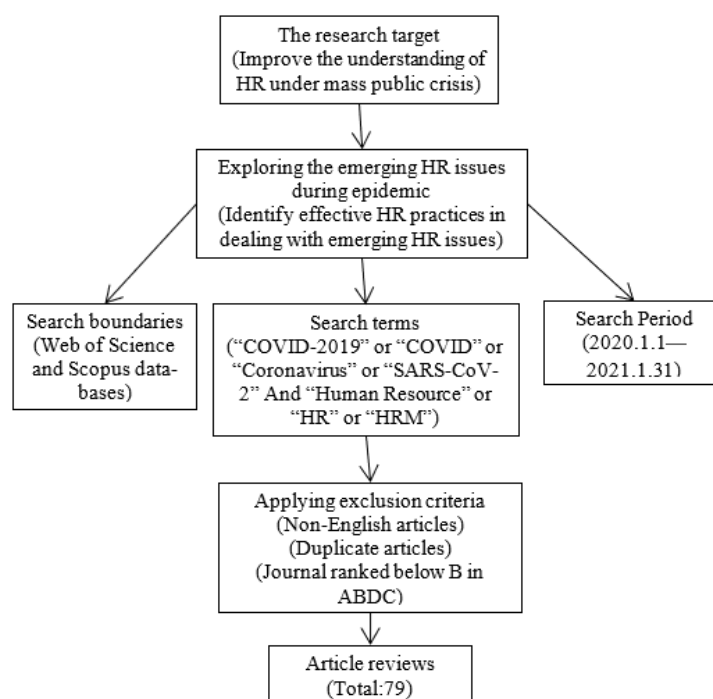


Figure 1. Research design for the systematic literature review.

We retrieved existing literature related to COVID-19 in the business and management field from the Scopus and WoS databases using keywords related to COVID-19 and HR: “COVID” OR “COVID-19” OR “Coronavirus” OR “SARS-CoV-2” (severe acute respiratory syndrome coronavirus 2) AND “Human Resource” OR “HR” OR “HRM”. The keyword screening in Scopus and WoS was set to include titles, abstracts and keywords to retrieve all relevant publications.

The articles reviewed in this study were published in English-language scholarly journals in the business and management field (not limited to management journals)

between 1 January 2020 and 31 January 2021. We chose January 2020 as our starting point because we wanted to understand what has happened with regard to HR issues since the COVID-19 outbreak. Many studies on HR issues have been published during the outbreak; the choice of a one-year period was a suitable starting point. We have aimed to identify emerging HR issues during the outbreak of the novel coronavirus with as many samples of papers published in high-quality journals as possible for the catchment period. Therefore, only articles from English scholarly journals ranked A*, A and B in the Australian Business Deans Council (ABDC) Journal Quality List 2019 were considered for the review process.

It must be admitted that our search may not have exhausted all articles published on this topic during the research period because of database unavailability, use of search terms not reflected in article titles or keywords, or human error (oversight) in the search process. However, we are confident that during our search period we have found most of the articles on this topic in academic journals. Thus, this data set has allowed us to outline what to study, where to study, the methodology, the theories used, and the information gaps that may exist.

2.2. Data Analysis

Each article was entered into an Excel file for data encoding and checked by different co-authors. The coding differences were then discussed with all co-authors to reach an agreement. Another co-author then randomly checked the data input for 79 articles to ensure accuracy. Each article was coded by title, author(s), year, source title, volume, issue, DOI (digital object identifier), database source, ranking, field of research, keyword, HR issues and industry. We have created a coding taxonomy for this paper based on the information above.

Both review and empirical articles that focused on emerging HR issues in the business and management field have been included in the reviewing process. Industry heterogeneity can often cause industry-specific variations in the impacts of an epidemic. Tourism, hotel, supply chain and logistics are the fields that have received the most attention from scholars; therefore, our analysis has also included relevant studies on HR practices in fields with similarly large personnel flows. Table 1 shows scholarly journals that have published articles on emerging COVID-19-related HR issues. We have used inductive classification rather than an a priori coding system to reveal the thematic focus on HR issues that appears in the literature.

Table 1. Scholarly journals publishing articles on emerging coronavirus disease 2019 (COVID-19)-related human resources (HR) issues.

No.	Journal Titles	No. of Articles Related the Impact of COVID-19 on HR Issues
1	<i>Applied Economic Perspectives and Policy</i>	1
2	<i>Business Horizons</i>	1
3	<i>Business Strategy and the Environment</i>	1
4	<i>Canadian Public Policy-Analyse de Politiques</i>	3
5	<i>Cultural Trends</i>	1
6	<i>Current Issues in Tourism</i>	1
7	<i>Environmental and Resource Economics</i>	1
8	<i>European Journal of Information Systems</i>	1
9	<i>Feminist Economics</i>	1
10	<i>Health Policy and Technology</i>	1
11	<i>Human Resource Development International</i>	8
12	<i>Human Resource Management Review</i>	4
13	<i>International Journal of Accounting and Information Management</i>	1

Table 1. Cont.

No.	Journal Titles	No. of Articles Related the Impact of COVID-19 on HR Issues
14	<i>International Journal of Contemporary Hospitality Management</i>	5
15	<i>International Journal of Disaster Risk Reduction</i>	1
16	<i>International Journal of Hospitality Management</i>	13
17	<i>International Journal of Human Resource Management</i>	1
18	<i>International Journal of Logistics-Research and Applications</i>	1
19	<i>International Journal of Operations and Production Management</i>	1
20	<i>International Journal of Sociology and Social Policy</i>	1
21	<i>International Journal of Sport Communication</i>	1
22	<i>International Journal of Tourism Research</i>	1
23	<i>International Journal of Work Organisation and Emotion</i>	1
24	<i>International Review of Economics & Finance</i>	1
25	<i>Journal of Accounting and Organizational Change</i>	1
26	<i>The Journal of Applied Behavioral Science</i>	1
27	<i>Journal of Applied Psychology</i>	2
28	<i>Journal of Business Research</i>	1
29	<i>Journal of Higher Education Policy and Management</i>	1
30	<i>Journal of Population Economics</i>	1
31	<i>Journal of Public Affairs</i>	3
32	<i>Journal of Supply Chain Management</i>	2
33	<i>Politics & Gender</i>	1
34	<i>Public Administration Review</i>	2
35	<i>Public Relations Review</i>	1
36	<i>Safety Science</i>	2
37	<i>Service Industries Journal</i>	1
38	<i>Tourism Management Perspectives</i>	1
39	<i>Transportation Journal</i>	1
40	<i>Urban Studies: An International Journal of Research in Urban Studies</i>	1
41	<i>Work Employment and Society</i>	1
42	<i>World Development</i>	4
		79

3. Results and Findings

The emerging HR issues are concentrated on major challenges, given that the emergence of COVID-19 has tremendous potential to strongly affect the world of work. One of the most significant changes is the workforce digitisation due to the social distancing policies, [Minbaeva \(2020\)](#) explores how global mega-trends—the flexible workforce, the digitalisation of business models, and artificial intelligence and machine learning—have influenced HR issues in the context of the COVID-19 pandemic. [Cooke et al. \(2021\)](#) claim that the HRM research in the post-COVID-19 era will be related to (1) a strong connection to the external environment; (2) international working; (3) development of technology; (4) development of traditional HR practices amid COVID-19; and (5) sustainable HRM. As for international HRM studies, [Caligiuri et al. \(2020, p. 697\)](#) claim that previous research has endeavoured to manage difficulties caused by distance but that “managing under

uncertainty, facilitating international and even global work, and redefining organisational performance” will be the future research avenues. This study has explored the impact of COVID-19 on HR issues through SLR. It has identified nine major emerging HR issues including employee wellbeing, a flexible workforce, remote work, job loss, human capital, training and development, leaders, performance and communication (Table 2).

Table 2. HR issues and keywords related to COVID-19 research.

HR Issues	Keywords
Employee wellbeing	Employee adjustment, wellbeing, job stress, job dissatisfaction, employee engagement, home boredom, motivation, job insecurity, emotional exhaustion, health and safety
Flexible workforce	Flexible work arrangement, staff shortage, nonstandard employment, flexible working opportunity, flexible groups, job search behaviour
Remote work	Work from home, remote work, income inequality, self-control depletion, withdrawal, feasibility, privacy violation, digital work
Job loss	Automation, employment status, loss job, income plummet, decrease of jobs, layoff, undeclared workforce
Human capital	Human capital efficiency, digital platform, human capital loss
Human resource development (HRD)	HR practice, HRD practice, organisational resilience
Leadership	Leadership, governance, gender imbalance
Performance	Motivators, performance management
Communication	Internal communication

3.1. Employee Wellbeing

The COVID-19 pandemic has challenged organisations to maintain their conventional HR practices. For instance, [Carnevale and Hatak \(2020\)](#) have raised concerns over employee adjustment and wellbeing in the workforce in the era of COVID-19. [Sadiq \(2020\)](#) has identified how police employees’ perceptions of workload have affected job stress and job dissatisfaction via work–family conflicts during the COVID-19 outbreak. Organisations are developing various innovative and effective activities to address employee engagement during the COVID-19 era.

The increase in job insecurity caused by COVID-19 is a powerful predictor of a higher willingness to leave. Many workers who have survived in the hotel and tourism industries are still considering looking for new jobs ([Bajrami et al. 2020](#)). [Chen and Eyouun \(2021\)](#) claim that fear of COVID-19 among restaurant frontline employees in the US is positively correlated with job insecurity and emotional exhaustion. The positive relationship between fear and job insecurity has been buffered by employee mindfulness, while the positive relationship between job insecurity and emotional exhaustion has been strengthened by the perceived organisational support.

Immigrant workers in the American hotel industry, as a vulnerable group, faced severe health and safety problems when the pandemic hit, but the government lacked corresponding measures to protect them ([Sönmez et al. 2020](#)). Based on the personal experience of a frontline worker in a British supermarket, [Cai et al. \(2020\)](#) have explored how the transition in the workplace has made ordinary work dangerous and even extreme in a crisis like the COVID-19 pandemic.

International employees’ health and safety is critical for organisations to function during the COVID-19 pandemic ([De Cieri and Lazarova 2020](#)). [Nowacki et al. \(2020\)](#) have identified the activities Polish employers took to protect employees of occupational health and safety services in the context of the COVID-19 pandemic. They conclude that the systematicity of those activities differs based mainly upon the seniority of the occupational health and safety service.

Under the occupation stigma theory, essential service workers used to be perceived as dirty workers in the US, but the status has been changed to well-regarded hero because of the COVID-19 outbreak. [Mejia et al. \(2021\)](#) have identified the coping mechanisms in both in-group and out-group perceptions and have highlighted the importance of keeping heroic status to make it beneficial for service workers.

3.2. Flexible Workforce

In response to the COVID-19 outbreak, flexible work arrangements have increasingly been implemented in the higher education industry. By exploring the inequalities and tensions resulting from flexible work arrangements before the pandemic, [Smyth et al. \(2020\)](#) have provided insight into its opposite effects, remaining unsure about the impact of flexible work arrangements on universities during the pandemic. Although workers, especially female workers, in essential sectors such as the healthcare industry have been at high risk when working during the pandemic, they receive no risk compensation and even less in wages than others. As such, [Folbre et al. \(2020\)](#) have called for a fair evaluation of care service workers, without whom there might be a staff shortage. [Charlton and Castillo \(2021\)](#) have claimed that the COVID-19 pandemic poses a threat to the farm labour market in the US. The workforce in that industry is insufficient because of the restriction on immigration. Thus, it is crucial to foster H-2A visa program recruitment to meet the labour demand to help to sustain agricultural production. [Comunian and England \(2020\)](#) have stated that the current precarious conditions in the creative and cultural industry in the UK cannot be exactly or clearly attributed to the COVID-19 outbreak, although it cannot be denied that the pandemic has had a negative impact on the creative and cultural workforces.

The flexible global working arrangement portfolio could bring significant but unrealised benefits to multinational enterprises, but it could also have hidden negative impacts on individuals. [Jooss et al. \(2020\)](#) have claimed that international HR functions must be considered with flexible global working arrangements, especially in response to volatile changes like the COVID-19 pandemic; thus, they could make greater strategic and sustainable considerations to support global mobility.

The COVID-19 pandemic has caused economic disruption: both employees and organisations are adapting their job search behaviour to the “new normal”. [McFarland et al. \(2020\)](#) found that job search behaviour increased as soon as the outbreak began and that most of the job applications were for work-from-home jobs instead of face-to-face jobs. In addition, the transition from standard employment to nonstandard employment has been increasingly distinct following the COVID-19 outbreak. [Tekeli-Yesil and Kiran \(2020\)](#), however, have argued that nonstandard employment and its trade-offs should be considered specifically and significantly in hospital emergency and disaster planning. In the context of the COVID-19 pandemic, workers with mental disabilities have no flexible working opportunities ([Warmate et al. 2021](#)). Organisations have used a flexible group-skunkworks approach to address technological difficulties, which has been very necessary for dealing with emerging HR-related challenges during the pandemic ([Biron et al. 2020](#)).

3.3. Remote Work

As a result of the COVID-19 outbreak, many organisations have been forced to adopt remote work to stay in business and keep employees connected. However, HR issues are emerging. The chances of working from home in Italy would be enhanced, along with the average income. [Bonacini et al. \(2021\)](#) have explored the fact that the benefits would be unequal for “male, older, high-educated and high-paid employees,” (p. 303) especially those who are living in urban areas; thus, working from home would exacerbate pre-existing income inequality risk in the Italian labour market. The damages to the labour market cannot be ignored. [Chadee et al. \(2021\)](#) have uncovered a paradox: although using digital technologies enables hospitality employees to work remotely during the COVID-19 era, they suffer from self-control depletion. Moreover, [Chong et al. \(2020\)](#) argue that there is a positive correlation between the daily COVID-19 setbacks and the next-day work

withdrawal via employees' end-of-day emotional exhaustion among telework employees. Organisations should emphasise supporting telework employees.

Meanwhile, the feasibility of remote work differs depending on industries, countries, and other workforce characters. [Diab-Bahman and Al-Enzi \(2020\)](#) have provided deep insight for HR policymakers into what aspects of the old conventional working conditions need to be reviewed or changed to ensure the success of remote work in Kuwait by studying the abrupt changes in working conditions during the pandemic. The feasibility of remote work in Pakistan depends mainly on computer and internet accessibility. [Hasan et al. \(2021\)](#) have explored the fact that only 10% of jobs have been doable from home in Pakistan during the pandemic, with tremendous gaps between megacities and rural areas. Moreover, occupations with higher female participation are more feasible for working from home than male-dominant low-skill, low-pay jobs. The relationship between remote work and employment losses under the pandemic has varied depending on different employment dynamics. [Gallacher and Hossain \(2020\)](#) have provided evidence from Canada that 41% of jobs can be done remotely, and occupations with a high level of feasibility of remote work have lower unemployment rates under some conditions.

The development of information technology allows new forms of work advantages for organisations and employees. Privacy violations are emerging and have attracted the attention of government and public service associations in an increasingly digital work environment ([Charbonneau and Doberstein 2020](#)).

3.4. Job Loss

The pandemic outbreak has presented a challenge for the Canadian labour market, which has resulted in unusual negative changes in employment status within the country. [Lemieux et al. \(2020\)](#) have identified the most affected groups of workers and provide a feasible reference for policy development. Like past recessions, the COVID-19 crises play a vital role in promoting automation and reallocation in Canada, resulting in the decrease of routine job employment in labour-intensive industries ([Blit 2020](#)).

Moreover, the demand shock caused by the pandemic threatens the livelihoods of low-income workers in Ethiopia's garment industry. [Meyer et al. \(2021\)](#) have explored the substantial changes that have incurred to female workers' employment statuses. Many female workers have lost jobs, suffer from food insecurity and have had to return from urban to rural areas. [Sheptak and Menaker \(2020\)](#) have concentrated on the impact of the COVID-19 pandemic on workers in the sports event industry, claiming that the hourly workers as precarious labourers are facing grim challenges as their income plummets, given that the events have been stopped suddenly.

Based on a survey of two midscale hotels, [Smart et al. \(2021\)](#) have found that because of the epidemic only 20% of employees were retained to maintain operations. However, they were also asked to reduce their salary temporarily to help ease the financial strain of the enterprise. Managers provided referrals and opportunities to obtain financial subsidies from the government for employees who had been laid off. As for construction workers, the spread of COVID-19 could lead to a decrease of 30–90% of the workforce on a construction project ([Araya 2021](#)).

The coronavirus pandemic has caused tourism companies and workers to lose income because of restrictions on their movements. In response, governments of various countries have provided temporary financial support, but not to tourism companies or workers who did not declare their economic needs ([Williams 2021](#)). [Williams and Kayaoglu \(2020\)](#) have also drawn European governments' attention to the undeclared workforce in the service industry who are not able to access financial support.

3.5. Human Capital

The COVID-19 pandemic has caused huge losses to organisations' human capital. [Yarovaya et al. \(2021\)](#) investigated the impact of human capital efficiency on equity fund performance and suggested that human capital should be emphasised to improve the funds'

resilience in the event of unexpected changes. Auditing of human capital also suffered from the COVID-19 outbreak because auditing firms such as Deloitte have tended to cancel their arranged monthly training and professional development sessions and workshops at all levels (Albitar et al. 2020). On the other hand, the pandemic has encouraged organisations to move the workforce onto digital platforms, which has weakened the value of fixed capital, social capital and human capital in the urban city (Zukin 2021).

The impact of COVID-19 on developing countries' human capital differs from those of developed countries. In the India context, COVID-19 has led to the shutdown of all schools and has caused enormous impacts on students as there is limited remote learning (Singh and Neog 2020). However, Lee and Choi (2020) claim that the government of South Korea has been able to react quickly to the COVID-19 pandemic by legislating new laws to protect the healthcare industry, which is suffering from human capital loss. Because of the COVID-19 outbreak, many government volunteers in Samoa who could provide technical assistance and help to access funding were repatriated, creating a sudden and huge shortage of technical personnel that would delay financial support applications. Therefore, Tierney and Boodoosingh (2020) have suggested using current academic experts to help non-governmental organisations (NGOs) access funding.

3.6. Human Resource Development

Anderson (2020) has argued that the emerging digital pedagogy under the outbreak of COVID-19 would lead to HR issues but also a chance to reconsider the conventional pedagogic methods in higher education and human resource development (HRD). In affecting organisational efficiency and performance, the pandemic has caused HR issues, but HRD can help leaders respond to unexpected circumstances. HRD can play a strategic role in solving emerging HR issues by providing leaders with a strong sense of purposes and ensuring employees' emotional stability as such to enhance organisational resilience (Dirani et al. 2020). Bierema (2020) proposed that HRD may help with emerging HR issues by creating humanely sustainable organisations and communities, interrogating exclusion and pursuing organisation and social justice. For instance, HR issues that emerged in Vietnam during the lockdown period could be dealt with through offensive and defensive responses that enable companies to withstand crises and then adapt to changes to develop the organisation's resilience (Ngoc Su et al. 2021). These HRD practices aim to increase economic capital, decentralisation and responsibilities and social capital.

3.7. Leadership

The unexpected COVID-19 pandemic has witnessed challenges to leadership across the globe, but the strategic role of HR should help create environments where leaders support equality and justice (Lee 2020). Although women leaders in both workplace and political sectors could provide unique perspectives on dealing with issues that include COVID-19 related decisions, Brooks and Saad (2020) argue that females do not have an effective platform to voice their concerns as do their male counterparts because of gender imbalances. Mather (2020) explores how leaders respond to the challenges and opportunities in leadership and governance under the pandemic, which will be helpful for future business success. Hotel safety leadership positively affects employees' safety behaviour (obedience, participation, and adaptation); belief restoration partially mediates the safety leadership's estimation of the impact of safety behaviour; the negatively perceived risk mediates the direct effect of safety leadership-belief and the mediating effect of recovery-safe behaviour (Zhang et al. 2020).

3.8. Performance

Performance management has been restricting or even absenting itself because of the complexities and obstacles inherent in measuring performance and disruptions during the COVID-19 outbreak (Aguinis and Burgi-Tian 2021). Although linking pay to performance is difficult, it becomes even harder for employers to determine rewards and bonuses and use

them as financial incentives to provide feedback to employees. Furthermore, employers are unable to distinguish the contributions of employees to tailor further career development opportunities for them, according to [Sadhna et al. \(2020\)](#). In addition, organisations that are unable to measure performance will put themselves in less advantageous legal and financial positions.

3.9. Communication

The COVID-19 pandemic has also resulted in emerging communication issues within organisations. Many have adopted remote work and flexible workforces because of prevalent social distancing policies in different countries. For example, [Sanders et al. \(2020\)](#) have raised concerns about how senior leaders in the higher education sector are able to overcome communication challenges and communicate effectively and efficiently with other staff, given that these staff have been forced to work at home during the pandemic.

Staff turnover has increased sharply, given that employers are unable to communicate effectively with their skilled staff and persuade them to stay. The quality of communication is often affected by the diversity of languages and cultures regardless of the extensiveness of the research or the effectiveness of solutions and opinions. In the past, the hospitality sector used to provide so called refuge employment opportunities for immigrants from diverse cultural and linguistic backgrounds ([Manoharan et al. 2021](#)). The staff of the hospitality sector with cross-cultural and cross-linguistic backgrounds used to have long-term optimism about their career development. This optimism has been affected by the weak job market and the challenging economy.

In conclusion, during the pandemic of COVID-19, these new HR issues have attracted the attention of scholars. But when studying these problems, there are distinct differences across industries. Researchers mainly focus on labour-intensive and highly mobile industries such as tourism and hospitality. Those studies have largely enriched HR research during the outbreak, but the limitations are very obvious. Because of the heterogeneity of the industry, the extensibility of the new HR issues in other industries is worthy of further study. In the literature we reviewed, HR issues emerged in labor-intensive and highly mobile industries during the outbreak were summarised (Table 3).

Table 3. Industries and issues related to COVID-19.

Industries	Issues
Accommodation and Food Service	Job loss, employee wellbeing, organisational flexibility, stigmatisation
Wholesale and Retail Trade	Job loss, employee wellbeing
Transportation	Job loss
Manufacturing	Job loss
Public Administration	Remote work, employee wellbeing
Education	Remote work, HRD, flexible workforce
Financial Service	Human capital
Health care	Human capital, flexible workforce
Arts, Entertainment and Recreation	Job loss, flexible workforce
Construction	Job loss
Real Estate	Human capital
Agriculture	Flexible workforce
Non-Governmental Organisation (NGO)	Human capital

Adapted from ISIC Rev.4 ([United Nations Statistical Division 2008](#)).

4. Discussion and Implication

The COVID-19 pandemic has created emerging HR issues and will continue to create new challenges for HR practices. Based on the SLR of 79 articles on the impact of COVID-19 on the HR field of research, this section provides an overview of potential HR practices that could be used to deal with emerging HR issues. All nine HR issues found in Section 3 have been discussed as follows.

4.1. Employee Wellbeing

Organisations require extensive HR-relevant knowledge to protect the health and safety of workers working across national borders (De Cieri and Lazarova 2020). Swanson and Suzuki (2020) have proposed that managers should proactively provide training to minimise safety concerns in the logistics sector affected by the epidemic. Chanana (2020) claims that organisations also benefit from teaching new skills and developing themselves so that employees feel responsible for the organisation and remain motivated.

Agarwal (2021) has explored the HR practices employed by the hospitality industry during the COVID-19 pandemic and reveals that flexible and employee-centred HR practices have a beneficial impact on employee wellbeing in uncertain times. In dealing with the employees' home boredom during the COVID-19 pandemic, hospitality managers can motivate employees to engage in online leisure activities that could contribute to their career self-management. Moreover, managers can develop managerial interventions to improve employees' growth on online leisure crafting (Chen 2020).

4.2. Flexible Workforce

The impact of COVID-19 on the workforce has been enormous. Business closures in the arts, entertainment and recreation sectors are related to the 20–30% reduction of non-salaried workers across the food/beverage and leisure/entertainment industries from March to April 2020 (Huang et al. 2020). The reopening policy has played a statistically important role in slowly restoring the labour market. Labourers are important assets for hotels, but they have had to implement temporary layoff measures to reduce the substantial cost of hiring labour (González-Torres et al. 2021). On the other hand, Lai and Wong (2020) have analysed the contingency strategies of the hotel industry in different stages across the whole crisis period. In particular, the hotel industry adopted a strategy of reducing working hours in the early stages of the crisis, whereas a voluntary unpaid leave strategy could be implemented as the crisis continued. In addition, a voluntary pay reduction of senior managers would be considered to show their support for employees.

The evidence suggests that air transportation companies are making opportunistic layoffs under the shadow of the current epidemic (Baum et al. 2020). The COVID-19 epidemic has reduced the attractiveness of the hotel industry to employees, especially when it comes to senior management positions; holders of these positions could replace their hotel jobs with safer and more rewarding jobs in other economic sectors. The organisational resilience of hotel companies, including their response to COVID-19, and corporate social responsibility practices, could affect the sense of safety of senior managers at work, thereby affecting their commitment to staying in the organisation (Filimonau et al. 2020).

Handfield et al. (2020) have claimed that manufacturing multinationals in the pursuit of low costs need to reconsider outsourcing production methods. When the pandemic crisis hit, manufacturers had to lay off a great number of employees, and there is no guarantee when production will resume. The e-commerce multinationals have adopted HR practices by using both robots and humans in the workforce, which helps retailers, hotels, and tourism to provide flexibility to the workforce (Sodhi and Tang 2021). There is also an opportunity to share the supply chain's ability to collaborate in distributing medical necessities such as antiviral drugs or vaccines.

Vulnerable groups of labourers also require attention from both organisations and government. Although equal rights were practiced well in the pre-COVID-19 workforce, more support is needed for vulnerable groups of labourers during the pandemic

(Warmate et al. 2021). Employers can enjoy financial benefits for hiring workers with mental disabilities; at the same time, governments should develop effective policies to encourage the recruitment of workers with mental disabilities.

4.3. Remote Work

Only a handful of studies have discussed practices to solve HR issues occurring during remote work. It cannot be ignored that an effective prolonged information technology exploration and exploitation plan responding to the crisis from a long-run perspective needs to be developed (Carugati et al. 2020). Although relational energy could alleviate the adverse effects of digital work connectivity, clear guidelines for regulating technology use when working from home in the hospitality industry require urgent reconsideration (Chadee et al. 2021). On the other hand, Bonacini et al. (2021) have suggested that policies mitigating income inequality for workers conducting remote work should be implemented.

4.4. Job Loss

Although temporary layoffs may be useful to reach a flexible workforce during the crisis, developing employees' skills to solve the problem of permanent layoffs and employee retention will also be important in the long run. This reflects the fact that employers must recognise the evolving practices associated with employees' participation in multiple job roles, expected to become a norm in the hospitality sector (Kaushal and Srivastava 2021). The construction industry may be similar to the hospitality sector, where construction managers could maximise low-risk activities to prevent job loss and help the financial response to the pandemic (Araya 2021).

Sharma et al. (2020) have argued that a shift to a digital platform economy could help to reduce the unemployment rate resulting from the pandemic and increase job opportunities. Williams and Kayaoglu (2020) argue that a voluntary disclosure initiative would be helpful in providing the undeclared workforce with temporary financial support. The short-term financial support currently provided to declaring staff can be used to draw undeclared companies and workers out of the shadows and into the sight of national authorities to promote the future compliance behaviours of these workers and companies (Williams 2021).

4.5. Human Capital

The significance is increasing in developing human capital for crisis. Kovács and Falagara Sigala (2021) stress that as the humanitarian supply-chain emphasises, crisis preparedness is not just about preparing stocks in advance but about preparing workers and their skills. These would be incredibly important for workforce restoration and economic recovery. On the other hand, stakeholders voluntarily support crisis management using certain skills. Chinese community volunteers form an important part of the process of working with the government during the pandemic to serve the public; Miao et al. (2021) have identified the crucial role and the effective development of citizen volunteers, who provide a useful reference for future crisis management in leveraging human capital more effectively.

There are also increasing calls for "green" (environmental and ecological) investments to help the economic recovery in the post-pandemic era. Chen et al. (2020) have explored the effectiveness of the green stimulus based on past crisis recovery experience in the US, and they indicate that workers displaced from manufacturing jobs could gain benefits from the green stimulus and training in green skills. Moreover, they claim that relevant job training is essential for mitigating potential conflicts during the green economy transition.

4.6. Human Resource Development

In the era of COVID-19, the HRD intervention should be implemented at a national level; a centralised government body will be able to help overcome COVID-19 sooner and more smoothly, providing strong leadership and creating a new normal (McLean

and Jiantreerangkoo 2020). The future of work is different in the post-pandemic era; the proposed 4-R Crisis-Normalcy model of HRD by Arora and Suri (2020) aims to support the new normal form of work and ensure the survival of organisations. On the other hand, Yawson (2020) has claimed that the future of work after COVID-19 will not be a new normal but a next normal to ensure HRs will receive rapid and strategic flexibility analysis under unexpected circumstances. Hite and McDonald (2020) have claimed that organisations should be proactive in addressing urgent needs to provide HRD and resilience for individuals' post-COVID-19 careers.

4.7. Leadership

The organisations of the hospitality sector have actively sought rational and credible strategies during the epidemic. They have used chief executive officer (CEO) letters to rationalise their COVID-19 response strategies and navigate the strength of letters as powerful promotion tools (Im et al. 2021). Furthermore, they have tried to gain the support of the audience and show temporary vulnerability, thus appealing to humans (Im et al. 2021). On the other hand, organisations should formulate management strategies based on safety leadership. This may include four aspects: safety guidance, safety care, safety incentives and safety control, all of which aim to motivate and promote employees' safety behaviours (Zhang et al. 2020).

4.8. Performance

Given the emerging issues of performance management in the context of the COVID-19 pandemic, Aguinis and Burgi-Tian (2021) have introduced the innovative Performance Promoter Score measure, which is a practical and helpful solution for dealing with the performance management challenges during and even after the crisis. Digital surveillance tools could be used to monitor employee performance in the Canadian public sector (Charbonneau and Doberstein 2020). Furthermore, it is crucial to point out the core motivators that have driven employees' performance and achievement during the pandemic, which would allow employers to prepare for a crisis well in advance, in terms of HRM (Sadhna et al. 2020).

4.9. Communication

Li et al. (2021a) proposed a theoretical model to explore the role of communication within organisations during the organisational change period under the pandemic. The findings suggest that transparent internal communication would help organisations by encouraging problem-focused control coping, reducing uncertainty and cultivating relationships between employees and organisations.

Kim et al. (2021) are studying whether communication transparency will enhance the impact of the safety atmosphere on employees' safety motivation, thereby driving safety performance behaviour through prevention of work priorities, and whether safety-related stigmas will weaken the link between safety motivation and safe behaviour. There are different models in South Korea and the United States regarding the moderating effect of communication transparency and stigmas on employees in the food service industry. The main manifestation is that the enhanced moderating effect of communication transparency on safety atmosphere and safety motivation is only significant for US hotel employees, whereas the weakening moderating effect of safety-related stigmas between safety motivation and safety performance behaviour is only significant for Korean hotel employees (Kim et al. 2021).

Public unions must establish good working relationships and act strategically in dealing with HR issues during the pandemic. In particular, the unions should have strong leadership and collective bargaining powers for negotiating worker protections (Fay and Ghadimi 2020). Table 4 has summarised all HR practices for managing HR issues across identified industries during the COVID-19 outbreak in the literature review. Some HR issues and practices did not specify related industries.

Table 4. Summary of implications for managing HR issues under COVID-19 outbreak.

HR Issues	HR Practices	Industry
Employee wellbeing	Flexible and employee-centred HR practices	Accommodation and food service
	Safety training	Accommodation and food service, Transportation
	Skills training	Accommodation and food service
	Online leisure activities	Accommodation and food service
	Managerial interventions	Accommodation and food service
Flexible workforce	Combine utilising robots and human	Wholesale and retail trade
	Reopening policy	Agriculture
	Temporary layoff measures	Accommodation and food service
	Reducing working hours	Accommodation and food service, Wholesale and retail trade
	Voluntary unpaid leave strategy	Accommodation and food Service
	Voluntary pay reduction of senior managers	Accommodation and food service
	Financial benefits	Accommodation and food service
	Nonstandard employment	Healthcare
	Prolonged information technology exploration and exploitation plan	Education
Remote work	Guidelines to regulate technology use	Accommodation and food service
	Policies mitigating income inequality	
Job loss	Multi-skills development	Accommodation and food service
	Multiple job role participation	Accommodation and food service
	Platform economy	Real estate
	Voluntary disclosure initiative	Accommodation and food service
	Financial support	Accommodation and food service
Human capital	Job training	Real estate
	Human capital preparation	NGO, Public administration, Manufacturing, Financial service
	Skills preparation	NGO
	Development of citizen volunteers	Public administration
Human resource development	HRD intervention	
	4-R Crisis-Normalcy model of HRD	
	HRD and resilience	
Leadership	Confident strategies	
	Safety leadership	Accommodation and food service
Performance	Digital surveillance tools	Public administration
Communication	Transparent communication	Public administration
	Cross-cultural communication	
	Collective bargaining power	Public administration, Healthcare

5. Research Propositions

The rapid spatial diffusion of the COVID-19 epidemic has caused unpredictable scaling. Its knock-on effects have created one of the biggest economic disruptions in recent decades. Given that COVID-19 has demonstrated strong infectious characteristics, jobs

requiring direct contact with customers and guests come with a high risk of infection. Social distancing and lockdown policies have caused tremendous impacts on various industries. The industries identified in the previous sections have been linked to the service-intensive and labour-intensive nature of the workforce. Some service-intensive industries can use digital technology to minimise direct contact with guests and customers.

5.1. Service-Intensive Industries

The accommodation and food service sector was among the sectors suffering most from COVID-19 because of the service-intensive nature of the work (Smart et al. 2021). As a result, the unemployment rate in the sector has reached nearly one third, negatively affecting workers' occupational optimism (Manoharan et al. 2021). The most critical HR issue brought by the epidemic to the accommodation and food service sector has been the increased risk of infection and employee turnover. The field has become less attractive to senior managers, who may attempt to seek jobs in other areas (Filimonau et al. 2020). As an important part of the labour supply to the hospitality sector, migrant workers in hotel and catering services face excessive long-term pressures and associated group risks, exacerbated by social, political and economic inequalities. COVID-19 has suddenly pressured migrant workers in the service-intensive sector (Sönmez et al. 2020). The termination of employee contracts has been a serious issue during this crisis; job insecurity is unlikely to improve in the short term (Baum et al. 2020). Meanwhile, the fear of COVID-19 has increased the mental exhaustion of frontline staff because of insecurity at work (Chen and Eyoun 2021). It is critical that managers work to overcome workers' anxiety and promote psychological recovery (He et al. 2021).

The public sector was undoubtedly on the front lines when the pandemic hit, and its employees are considered the first responders to the crisis (Fay and Ghadimi 2020). However, in the face of the sudden COVID-19 outbreak, the public administration industry has encountered many HR issues, mainly related to remote work and employee wellbeing. As Charbonneau and Doberstein (2020) have stated, the use of digital surveillance tools to monitor employee performance while telecommuting has the potential to invade privacy and lead to employee surveillance anxiety. In addition, the workload of civil servants, such as the police, has risen sharply in dealing with public health emergencies. The rapid growth of work pressure has caused huge work–life conflicts, which has increased dissatisfaction with the job (Sadiq 2020).

Moreover, positive psychological factors, such as communication, cooperation, and increasing employee welfare can play an important role in reducing workers' job insecurity (Ngoc Su et al. 2021). It is also critical to increase occupational health and safety practices within organisations; these practices are positively correlated with job motivation (Kim et al. 2021). Strong leadership in employee health and safety areas such as compliance, participation and adaptation have a positive impact on employee wellbeing (Zhang et al. 2020). Although it is difficult for the public sector to balance employees' rights and employers' desires, the situation could be alleviated through transparent communication and mutual understanding (Charbonneau and Doberstein 2020). Meanwhile, public unions can protect employees through strong negotiation power and leadership (Fay and Ghadimi 2020).

Proposition 1a. *Organisations in the service-intensive sector should establish safe working environments, flexible work schedules and emergency responses to secure employee wellbeing, reduce job insecurity and lower employee turnover.*

Proposition 1b. *Governments should regulate health and safety standards to protect workers' health and safety.*

During the epidemic, HR practices could go beyond the traditional boundaries of HR issues in the workforce to further bind employers and employees (Agarwal 2021). Organisations in this industry often attempt to reduce costs to obtain financial liquidity.

Although it becomes extremely hard to attract international tourists, hospitality firms aim to maintain key relationships with governments, travel agents and competitors to overcome economic disruptions (González-Torres et al. 2021). Extending to a national level, the accommodation and food sector have required that the government implement comprehensive measures to save the economy and ensure the sustainability of HR practices during the epidemic (Singh and Neog 2020). Governments have provided temporary financial support to the workers and organisations in this sector to alleviate the operating pressure caused by the epidemic (Williams 2021).

The COVID-19 outbreak has promoted remote work in the education, financial service, real estate and trade industries. However, these industries have also suffered from HRD challenges (Anderson 2020) and the weakening (Albitar et al. 2020) and loss (Yarovaya et al. 2021) of human capital resulting from the workforce's transfer to a digital platform (Zukin 2021). Meanwhile, leaders have faced the challenge of how to maintain effective communication with employees and flexible work arrangements through remote work (Sanders et al. 2020).

Organisations have further integrated information technology into business operations to maintain social distancing. Employee training may be a potential solution to keep skilful labour in good supply during the transition. This circumstance reflects the need for forward-looking managers to recognise evolving practices related to employee participation in multiple work roles, which are expected to become the new normal in the tourism industry (Kaushal and Srivastava 2021). Meanwhile, employees affected by self-isolation policies can access online training programs and leisure activities (Chen 2020). However, digital work connectivity may lead to the exhaustion of self-control, which in turn is related to the disengagement of work (Chadee et al. 2021). In addition to the technical aspects of this shift, the impact of the COVID-19 pandemic on essential service workers has led to their regaining of 'hero' status, resulting in a dramatic change in their professional values (Mejia et al. 2021).

The transformation to the digital platform economy has been an effective way of responding to the pandemic that has reduced the unemployment rate and provided job opportunities (Sharma et al. 2020). The development of e-commerce has created enterprises in the trade industry with opportunities to adopt flexible workforce strategies that combine the use of robots and humans (Sodhi and Tang 2021). In the financial services industry, managers should invest in human capital (Yarovaya et al. 2021) particularly in digital activities and programs, which can help overcome boredom when working from home (Chen 2020) but also offer a route to self-development (Albitar et al. 2020). Therefore, an effective long-term information and technology development plan is important for the process of digital development in universities (Carugati et al. 2020). Moreover, technology also helps university leaders communicate effectively with employees while working remotely via digital tools such as email or video conference (Sanders et al. 2020).

Proposition 2a. *Employers in the service-intensive sector may provide employees with digital skills training and development over the further integration with digital technology to maintain social distancing.*

Proposition 2b. *Governments should promote the use of digital platforms in service-intensive industries and support digital training to use workers' human resource development and provide job opportunities.*

Some service-intensive industries are unable to use digital platforms for delivery services. These industries tend to suffer from job losses. For instance, there is no doubt that the healthcare and industries are on the front line when facing the public health crisis. The high exposure risk at work and relatively low pay (Folbre et al. 2020) have caused serious employee turnover and a massive loss of human capital in the healthcare sector (Lee and Choi 2020). Industry transformation and lack of financial support from the government have caused severe job losses in the transportation industry (Blit 2020;

Williams and Kayaoglu 2020). Industries such as healthcare, transportation, arts, and entertainment and recreation, as well as non-government-organisations (NGOs), have also encountered issues with flexible workforce (Tekeli-Yesil and Kiran 2020; Comunian and England 2020) and loss of human capital (Tierney and Boodoosingh 2020; Sheptak and Menaker 2020) directly caused by the lockdown strategy under the pandemic (Singh and Neog 2020).

To better protect the workers who are most vulnerable in these industries, governments should respond to the pandemic as quickly as possible and legislate to protect the healthcare industry from human capital loss (Lee and Choi 2020), while unions at the industry level should play as central a role as possible (Folbre et al. 2020). These unions should have the power to protect employees during an uncertain period. Moreover, hospitals should involve nonstandard employment in emergency plans to help tackle issues related to flexible workforces (Tekeli-Yesil and Kiran 2020); the non-standard employment strategy could be adopted in other service-intensive industries as well. Safety training is one of the priority practices leaders should apply. Therefore, safety training is essential in responding to public health crisis management by minimising safety concerns (Swanson and Suzuki 2020). Temporarily using local academic professionals to replace skilled overseas government volunteers could relieve the pressure of human capital shortage to a certain extent during the pandemic era (Tierney and Boodoosingh 2020).

Proposition 3a. *Service-intensive organisations that cannot provide service through digital technology should provide safety training on a regular basis as crisis preparation, as well as using safety leadership.*

Proposition 3b. *Governments should provide temporary financial support and unions should enhance collective bargaining power to maintain the human capital of essential workers.*

5.2. Labour-Intensive Industries

In the context of COVID-19, most labour-intensive industries have been shut down because of lockdown practices and forced social distance orders. Workers in the manufacturing and construction industries are unable to work from home as their jobs need to be completed manually (Lee 2020). The suspension of face-to-face, on-site work has been used to prevent the spread of the disease, but it leads to a dramatic decrease in the workforce (Araya 2021). In addition, the promotion of automation and reallocation also leads to a smaller demand for workers (Blit 2020). In particular, female employees are facing worse conditions than their male counterparts (Meyer et al. 2021). By contrast, there is an insufficient number of farm workers in the agriculture industry because of strict restrictions on travelling and immigration around the world (Charlton and Castillo 2021).

The global public health crisis reminds multinational enterprises in the labour-intensive industries of the shortage in domestic labour supply as they tend to outsource labours from low-cost countries (Handfield et al. 2020). Although US farmers urged the government to reopen the immigrant market and promote H-2A hiring to ease labour shortages and meet agricultural labour demand (Charlton and Castillo 2021), organisations should still pay attention to crisis preparedness, including not only stocks but also human capital and skills (Kovács and Falagara Sigala 2021). In response to the job loss issues in these industries, one useful idea is that employers could maximise the scheduling of low-risk work to lower costs so that they can maintain a better financial status to ensure the survival of employees (Araya 2021). Furthermore, the shortage of labour supply in the agricultural industry could be fulfilled, with appropriate skills training, by unemployed workers in manufacturing and construction industries.

Proposition 4a. *Organisations in the labour-intensive sector are required to conduct human capital preparation and develop workers' multiple job roles to provide a flexible workforce when there is a reduced labour demand.*

Proposition 4b. *Workers in the labour-intensive sector are required to develop multiple skills and skills preparation to relieve the shortage of labour in other industries.*

In conclusion, based on the discussion of industry characteristics and emerging HR issues during the COVID-19 pandemic in the search literature, we further analysed some effective practices of these new HR issues during the epidemic, and developed a series of propositions to expand the boundaries of existing research and provide certain reference opinions for HR practitioners and researchers to respond to the impact of the epidemic.

6. Conclusions and Limitation

6.1. Conclusions

Consistent with the universalist view, our results suggest that all HR practices have had a more positive and significant relationship with organisational performance during the COVID-19 pandemic than during the non-pandemic period. During the outbreak, HR practices (such as training, profit sharing, development, job security and employee voice) have made an increased contribution to organisations' performance, mainly because widespread unemployment causes employees to cherish job opportunities more.

Our findings also imply that the relationship between HR practices and performance during COVID-19 has differed depending on the size of the organisation and the heterogeneity of the industry. During the epidemic period, the relationship between HR practices and performance was strongest in low-tech enterprises (such as hotels and catering industries), where employees lacked self-sufficiency, which also reflected that the epidemic most severely affected the labour force for low-tech enterprise. In addition, it has been found that because of the influence of COVID-19, a series of emerging problems have emerged in the field of HR that have presented more research topics for future HR research. Among them, due to the particularity of COVID-19, the topic of HR research mainly focuses on the risk of epidemic spread brought about by the flow of workers. Therefore, in the related research into HR, the topic of health and life safety has attracted the most concern from enterprise managers and researchers.

We contribute to the HR research stream by identifying new HR practices raised to solve emerging HR issues that have promoted the development of HRM research. In addition to the significant increase in the attention of managers and researchers to health and safety rights, some interesting research implications provide a number of new initiatives. For example, research on occupational stigma has been further enriched since the epidemic's occupational stigma in traditional low-tech service industries has been significantly improved. The flexible work arrangements first implemented in universities and high-tech companies are becoming favoured by companies and units in the transformation of working methods across other industries.

We also contribute by identifying new problems caused by new HR practices. Flexible working arrangements have caused new challenges such as the increase in inequality, personal burnout and reduced work efficiency. Although telecommuting or work from home that matches flexible working arrangements is effective to ensure employees' health and safety, their self-control becomes problematic and has caused negative emotions. Furthermore, distance education technology for students in underdeveloped areas is difficult to achieve. Organisations are shifting labour to digital platforms, which weakens areas with poor digital infrastructure. Problems such as the value of capital, social capital, and human capital require extensive efforts to be resolved. Moreover, as organisational flexibility has become a focal measure to deal with the epidemic, improving organisational flexibility is difficult in HRD because of the dual heterogeneity of industry heterogeneity and enterprise heterogeneity. Leadership practices also result in issues of gender differences, discrimination, safety management and education. Limited performance management practices were adopted during the epidemic, which makes it harder for employers to distinguish employees' contributions and provide career development opportunities tailored to them. Due to the widespread social distancing policies of various countries, many countries have

adopted remote work and flexible labour, which leads to communication and transmission problems within the organisation.

6.2. Limitation

Although our systematic literature review has been comprehensive, analytical and theoretical, caution is still required when interpreting these results. In the novel coronavirus epidemic, the results of the regulatory role of organisational and environmental factors are examined in each HR practice. In addition, our systematic literature review design has not allowed us to fully test the proposed theories because we are limited to information provided in papers published in B-level journals and above. Therefore, future research should rely on more diverse literature sources and analytical methods to conduct a more systematic and comprehensive analysis of the relationship between COVID-19 and HR practices.

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