



International
Labour
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▶ **Human-centred
approach to increasing
workplace productivity**

Evidence from Asia

Edited by **Fang Lee Cooke** and **Nikolai Rogovsky**

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ISBN: 9789220391341 (print)
9789220391358 (web PDF)

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▶ Contents

Abbreviations	vii
1. Introduction	1
1.1. Overview	2
1.2. Why focus on these four Asian economies?	6
1.3. Factors influencing labour productivity.....	9
1.4. Structure of the book.....	20
1.5. Summary.....	23
2. Towards a human-centred approach to increasing workplace productivity: A multilevel analysis of China	29
2.1. Introduction.....	30
2.2. Productivity in China: A macro- and meso-level overview	32
2.3. The role of the State in raising productivity	41
2.4. The role of the trade unions	49
2.5. HRM practices to enhance productivity at the firm level.....	54
2.6. Conclusions.....	63
3. The human-centred approach to increasing workplace productivity: Evidence from India	69
3.1. Introduction	70
3.2. Structural transformation and productivity	73
3.3. The effect of labour laws and regulations	75
3.4. Human capital and productivity.....	78
3.5. Human resources management and productivity	85
3.6. Global value chains and productivity	91
3.7. Teleworking and productivity	96
3.8. Conclusions.....	98
4. Towards a human-centred approach to increasing workplace productivity: The case of Japan	107
4.1. Introduction	108
4.2. Productivity in Japan: A macro- and meso-level overview.....	110
4.3. Composition of the workforce	114
4.4. Skills formation in traditional Japanese firms.....	120
4.5. Education, skills and training	123
4.6. Government policy to enhance investment in human capital	127
4.7. “Womenomics”	134
4.8. Decent work and productivity.....	137
4.9. Conclusion	141
5. A human-centred approach to increasing workplace productivity: Evidence from the Republic of Korea	147
5.1. Introduction	148
5.2. Review of the literature on labour productivity and workplace innovation.....	152
5.3. Empirical analysis of human-centred work practices and their impact on firm performance and workers’ well-being.....	157
5.4. Case studies of human-centred workplaces in the Republic of Korea	173
6. Conclusions	197
6.1. Introduction	198
6.2. Key findings from the four country chapters.....	199
6.3. Topics for future research and their policy implications.....	204
6.4. Concluding remarks.....	213
Annex: Biographical information on the contributors	216

► List of Figures

Figure 1.1. Human Development Index of China, India, Japan and the Republic of Korea, 1980–2021	8
Figure 1.2. Labour productivity in China, India, Japan and the Republic of Korea, 2010–21 (2017 US dollars).....	10
Figure 1.3. Factors influencing labour productivity	11
Figure 2.1. China’s annual GDP growth rate, 1961–2021 (percentage)	33
Figure 2.2. Labour productivity per hour worked in China, 2005–21 (in 2017 US dollars at purchasing power parity).....	35
Figure 2.3. Number of graduates from public colleges and universities in China, 2010–20 (thousands).....	39
Figure 2.4. Average wage across various Chinese provinces, autonomous regions and municipalities, 2020 (yuan).....	45
Figure 2.5. Average wage across various industries in China, 2020 (yuan).....	46
Figure 2.6. Gross domestic product growth rate per capita and average wage growth rate in China, 1990–2020 (percentage)	46
Figure 2.7. Gini index: Inequality of income distribution in China, 2004–20	47
Figure 3.1. Labour productivity per hour worked in India, 2000–18 (2017 US dollars PPP)	71
Figure 3.2. Annual growth rate of India’s gross domestic product, 1991–2021 (percentage).....	73
Figure 3.3. Number of students enrolled in higher education in India, by sex, 2016–20 (millions)	79
Figure 3.4. Share of employable young people in India, 2016–22 (percentage)	80
Figure 3.5. Share of businesses in India reporting a talent shortage, by industry, 2022 (percentage)	81
Figure 4.1. Labour productivity in Japan and average for the G7 countries, 2000–21 (GDP per hour worked).....	111
Figure 4.2. Potential growth rate in Japan, 2000–21 (percentage)	112
Figure 4.3. Decomposition of potential growth rate in Japan, 2000–21 (percentage)	113
Figure 4.4. Japan’s population, by age group, 1980–2050 (ten thousands).....	115
Figure 4.5. Annual working hours in Japan, 1990–2020	116
Figure 4.6. Labour force participation rate in Japan, by age and sex, 2000–21 (percentage)	118
Figure 4.7. Share of non-regular workers in Japan, by sex, 2000–21 (percentage)	119
Figure 4.8. Average monthly salary in Japan, by sex, 1990–2020 (thousand yen).....	124
Figure 4.9. Distribution of decent work policy scores among Japanese firms, 2015.....	140
Figure 5.1. Robot density in the manufacturing industry, Republic of Korea, 1990–2018 (robots installed per 10,000 employees).....	149
Figure 5.2. International comparison of labour productivity in 2020 (GDP per hour worked).....	150
Figure 5.3. Analytical model of human-centred work practices in the Republic of Korea.....	156
Figure 5.4. Human-centred workplace score of firms in the Republic of Korea, 2007–19 (average).....	159
Figure 5.5. Prevalence of selected human-centred work practices among firms in the Republic of Korea, 2007–19 (average scores)	160
Figure 5.6. Prevalence of selected human-centred work practices among firms in the Republic of Korea, by firm size, 2007–19 (average scores).....	161
Figure 5.7. Human-centred workplace score of firms in the Republic of Korea, by sector, 2007–19 (average).....	162
Figure 5.8. Human-centred workplace score of firms in the Republic of Korea, by union status, 2007–19 (average).....	163
Figure 5.9. Correlation between human-centred workplace score and firm performance, Republic of Korea, 2007–19.....	165
Figure 5.10. Correlation between human-centred workplace score and indicators of employee well-being, Republic of Korea, 2007–19.....	168
Figure 5.11. Government-sponsored consultancy activities on workplace innovation in the Republic of Korea, 2005–20	188
Figure 5.12. Policy framework for the promotion of workplace innovation in the Republic of Korea	191
Figure 6.1. Gender Inequality Index scores of China, India, Japan and the Republic of Korea, 1990–2021	209
Figure 6.2. Enhancing labour productivity sustainably through a high-road approach to human resources management.....	212

► **List of Tables**

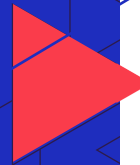
Table 2.1.	Areas for improvement.....	57
Table 4.1.	Changes in Toyota's Board of Directors, 2002–22.....	129
Table 4.2.	Profiles of chief executive officers in Japan and the United Kingdom, 2019.....	134
Table 4.3.	Female chief executive officers in Japan, 2004–15	136
Table 5.1.	Overview of the components of a high-performance work system.....	154
Table 5.2.	Determinants of the human-centred workplace score of firms in the Republic of Korea: Results of regression analysis.....	164
Table 5.3.	Effect of human-centred workplace score on firm performance in the Republic of Korea: Results of regression analysis.....	166
Table 5.4.	Effect of human-centred workplace score on wage and employment growth rates in the Republic of Korea: Results of regression analysis.....	169
Table 5.5.	Effect of human-centred workplace score on working hours: Results of regression analysis	170
Table 5.6.	Effect of human-centred workplace score on employee turnover rate: Results of regression analysis.....	171
Table 5.7.	Basic information on the three companies in the case studies.....	174
Table 6.1.	Factors influencing labour productivity	200

► **List of Boxes**

Box 2.1.	Employee care initiatives in China during the COVID-19 pandemic	60
Box 3.1.	Bridging the skills gap in India	82
Box 3.2.	The Non-Traditional Livelihoods Network.....	84
Box 3.3.	Employee compensation at Elgi Equipments.....	87
Box 3.4.	The Social Compact initiative	92
Box 3.5.	How SCORE Training improved worker–employer relationships and productivity at J.P. Enterprises.....	93
Box 3.6.	How SCORE Training helped Stanfab Apparels to integrate women migrant workers, leading to improved effectiveness	95

Abbreviations

ACFTU	All-China Federation of Trade Unions
CEO	chief executive officer
CSR	corporate social responsibility
FDI	foreign direct investment
GDP	gross domestic product
HCW	human-centred workplace
HPWP	high-performance work practice
HPWS	high-performance work system(s)
HRM	human resources management
KLES	Korea Labor and Employment Service
NGO	non-governmental organization
OECD	Organisation for Economic Co-operation and Development
PPP	purchasing power parity
R&D	research and development
SCORE	Sustaining Competitive and Responsible Enterprises [ILO programme]
SMEs	small and medium-sized enterprises
TVET	technical and vocational education and training
WFH	working from home



1. Introduction

Nikolai Rogovsky and Fang Lee Cooke

► 1.1. Overview

Productivity, broadly defined as a measure of how efficiently resources are used (ILO, n.d.(a)), is one of the key priorities for the ILO, which has a long-standing interest in productivity studies, as reflected, for example, in its cooperation with the Asian productivity movement since the 1960s (ILO 1965). A great deal of effort has been invested by the ILO in helping governments to develop policies on productivity and in assisting regional and national productivity councils and organizations, many of which have a tripartite governance structure (Ramkissoon 2020). Productivity has also been one of the principal topics on the ILO's research agenda. This book presents findings from one of the most recent ILO research projects on productivity, which focused on four Asian countries, and identifies avenues for future research at the national, regional and global levels.

The ILO recently reaffirmed the importance of productivity when celebrating its 100th anniversary in 2019, using that as an opportunity to take stock of its main achievements and to set out its priorities for the coming years. Adopted in June 2019, the ILO Centenary Declaration for the Future of Work emphasizes that “[t]he ILO must carry forward into its second century with unrelenting vigour its constitutional mandate for social justice by further developing its human-centred approach to the future of work, which puts workers’ rights and the needs, aspirations and rights of all people at the heart of economic, social and environmental policies.” Such an approach involves harnessing “the fullest potential of ... productivity growth, including through social dialogue, to achieve decent work and sustainable development, which ensure dignity, self-fulfilment and a just sharing of the benefits for all”. Creating “productive workplaces” is critical in achieving that goal (ILO 2019a).

The ILO's human-centred approach translates into a more detailed “human-centred agenda” as described in the *Work for a Brighter Future* report that was prepared by the ILO Global Commission on the Future of Work. This is an action-oriented agenda that “puts people and the work they do at the centre of economic and social policy and business practice” and, accordingly, calls for greater investment in decent and sustainable work, as well as in people's capabilities and the institutions of work (ILO 2019b, 11–13).

The human-centred agenda is closely related to the “high road” approach to productivity that the ILO has consistently been promoting at both the macro and micro levels. This approach seeks to enhance productivity through better working conditions and full respect for labour rights, in contrast to the “low road”, which implies exploitation of the workforce (ILO, n.d.(a)). Although the human-centred agenda is largely a policy-level concept, at the workplace level it is related to a set of human resources management (HRM) policies and practices that are very similar to the ones traditionally viewed as comprising the “high road”. That is why we believe it is appropriate to use the terms “high-road approach” and “human-centred approach/agenda” interchangeably in this book.

The promotion of a high-road approach to raising productivity echoes the notion of high-road HRM and employment relations advocated by many scholars (see, for example, Milkman 1998; Michie and Sheehan 1999; Harvey and Turnbull 2010). High-road HRM refers to a high-skill, high-wage model of managing human resources (Milkman 1998), including the adoption of HRM practices such as “functional flexibility through a high level of training, high-involvement/commitment, high rewards and quality initiatives” (Cooke 2001, 325). By contrast, low-road HRM refers to “[a] ‘bleak house’ form of work organization in which low pay, low job security [and] work intensification are the main characteristics” (Cooke 2001, 325, citing Sisson 1993; see also Gittell and Bamber 2010). Although low-road HRM is often associated with low business costs, empirical evidence suggests that a high-road approach is necessary to achieve organizational competitiveness, especially in the service sector, where good customer service is the key to success (Harvey and Turnbull 2010). High-road HRM implies investing in employees. Indeed, leading HRM scholars have long argued that research in that field should pay greater attention to employee well-being and associated management techniques, rather than focusing on determining which HRM practices can improve organizational performance (Guest 2017).

There is some evidence that a high-road approach to management leads to higher productivity. For example, ILO data from the Better Work programme and the Sustaining Competitive and Responsible Enterprises (SCORE) programme show that “improved workplace cooperation, effective workers’ representation, quality management, clean production, human resource management and occupational safety and health, as well as supervisory skills training, particularly among female supervisors, all increase productivity” (ILO 2021,

para. 27). Moreover, better management “helps to lower accidents at work and employee turnover and reduces the occurrence of unbalanced production lines (where work piles up on one line while other workers are sitting idle). Evidence also points to increased productivity and profitability associated with a reduction in verbal abuse and sexual harassment” (ILO 2021, para. 27).

However, it is important to note that not all enterprises increase their productivity by using high-road policies and practices. In many emerging economies and developing countries – where laws and labour standards are not always complied with and workers are often not well organized and represented, either owing to a lack of organization or the declining strength of unionism – the low-road approach is still widespread. This has sometimes led to devastating consequences, such as the Rana Plaza disaster in Bangladesh in 2013 (Hoskins 2015; Morris, Jenkins and Donaghey 2021). In countries where labour regulations are more strictly enforced, businesses tend to create a dual labour market, on the one hand applying high-road HRM practices to permanent employees, and on the other resorting to an expanding range of non-standard employment arrangements to drive their costs down and avoid accountability. At the same time, the low-road strategy is becoming more and more common in developed countries. For example, many enterprises there have been replacing the “employee empowerment” approach (which typically manifests itself in high-performance HRM practices) with an “optimization” approach primarily based on technological innovation and the introduction of artificial intelligence-driven algorithms. Technology-centric optimization seems to appeal to many organizations and, as a result, employee empowerment as a driver of productivity is being largely neglected (Cappelli 2020).

Human resources management systems are configured and implemented within a broader national context (Boxall and Purcell 2016; Jackson and Schuler 1995; Jackson, Schuler and Jiang 2014). However, in studies looking at how HRM affects performance, there has been a growing tendency to focus on the individual and firm levels without taking institutional factors into account (Cascio 2015; Kaufman 2020). Therefore, further research is necessary to understand the extent to which firms in different countries are adopting high-road HRM practices to improve their productivity and how the national context shapes a country's economy and productivity.

By way of illustration, this book examines the characteristics of national productivity and the role of labour productivity in four Asian economies: China, India, Japan and the Republic of Korea. We explore the following research questions in particular:

1. Does productivity growth at the macro level correlate with positive dynamics in employment, social protection, equality and wages in the four Asian countries studied?
2. What are governments, employers and trade unions in these four Asian countries doing to support and promote a high-road approach to enhancing workplace productivity?
3. How do various enterprise-level HRM practices affect productivity?
4. How do social dialogue and collective bargaining affect productivity at the enterprise level?
5. Which high-road HRM practices have been adopted by enterprises, and what are their effects on employee performance and workplace productivity?
6. How do countries learn from one another in relation to the high-road productivity agenda?

► 1.2. Why focus on these four Asian economies?

China, India, Japan and the Republic of Korea were selected for analysis in this book because of their considerable and still growing weight in the global economy. More specifically, our choice was influenced by the following rationale that makes these four countries particularly relevant to a general discussion on productivity:

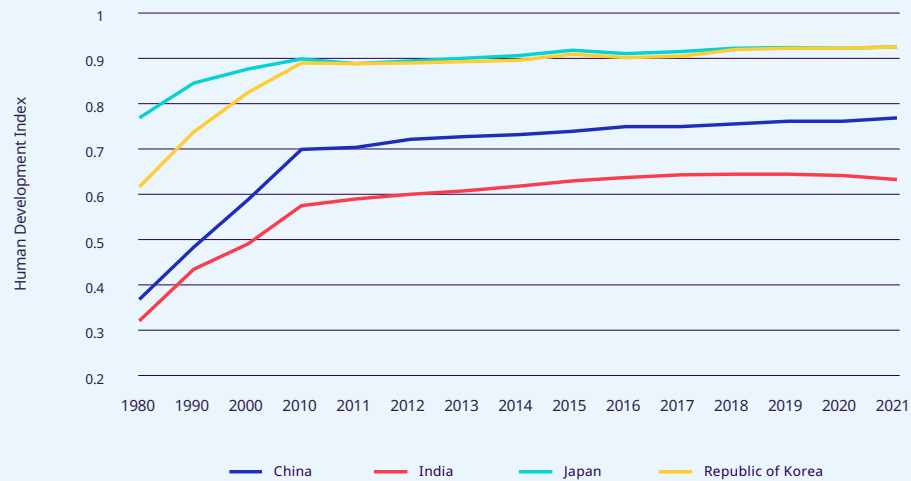
1. China, India, Japan and the Republic of Korea are the four largest Asian economies, having experienced rapid growth since the 1970s (in the case of Japan and the Republic of Korea), the 1980s (China) and the 1990s (India). However, this economic development has arguably not always been accompanied by parallel social development in terms of human capital investment, gender equality and wage equality. Nor have these countries' productivity models been human-centred and characterized by high-road HRM practices, as will become clear in the individual country chapters. All four countries have nevertheless achieved significant progress in human development over the past three decades. In particular, the Republic of Korea has caught up with Japan on the Human Development Index, with both jointly ranked 19th out of 191 countries in 2021, whereas China and India were ranked 79th and 132nd, respectively (UNDP 2022; see figure 1.1 below).
2. National productivity systems differ from one another and are influenced by an array of institutional, economic and cultural factors. Firms in these four countries are likely to encounter different incentives and pressures to adopt a high-road approach to productivity. For example, manufacturing firms in Japan and the Republic of Korea tend to be geared towards high-tech products and are arguably more interested in investing in their employees. By contrast, Chinese and Indian firms are more likely to be reliant on the large supply of rural migrant workers in those two countries and may tend to operate in a "cost containment" mode.
3. These countries present interesting cases because the manufacturing industry has traditionally played a significant role in China, Japan and the Republic of Korea, and to a lesser extent India, in terms of

providing employment and contributing to national gross domestic product (GDP). Given its share of the national GDP (which is higher than in many other parts of the world) and also the labour-intensive nature of manufacturing, labour productivity improvement may have a strong impact on the sector's overall productivity and, consequently, on national productivity. However, manufacturing has been experiencing rapid technological change in recent years, causing production workers to be displaced by machines on the one hand, and necessitating upskilling of the workforce on the other. An important consideration for our analysis is that labour productivity is easier to measure for manufacturing jobs. In addition, manufacturing is more heavily unionized than other industries in India, Japan and the Republic of Korea and, therefore, susceptible to industrial action. In China, too, there are often wildcat strikes in that sector (Bamber et al. 2021). Although the country chapters deal mainly with the manufacturing industry, other industries are discussed as well, where possible.

4. Labour productivity is influenced by a country's economic structure, education system, labour market arrangements, the characteristics of industrial relations, and management practices. Are there intrinsic features of Asian models related to HRM practices and labour productivity that could be shared with countries in other regions?

It is generally recognized that measuring productivity is an immense challenge, in part owing to the indirect nature of some of the inputs, but also because some of the outputs are intangible. This book does not intend to offer a scientifically precise description of the national productivity model implemented by firms in the four Asian countries. Rather, the primary objective is to identify key challenges and emerging trends. Even though firms may not be adopting high-road HRM practices systematically, there may be certain practices common to several industries in the four major Asian economies that have implications for other countries. To obtain findings that are focused, representative and comparable, each country chapter will examine a few industries, namely those that best reflect (a) changes in the economic structure, demographics and the level of human capital; (b) technological developments; and (c) the role of key institutional actors in shaping HRM policy and practice. The findings presented are expected to contribute to the policy debate on the role of the private sector in a world of rapid change confronted with major technological, social and economic challenges.

▶ Figure 1.1. Human Development Index of China, India, Japan and the Republic of Korea, 1980–2021



Note: The Human Development Index is a composite index measuring average achievement in three basic dimensions of human development: “a long and healthy life, knowledge and a decent standard of living” (UNDP 2022, 276).

The index is 1 in a country that achieves the maximum value aggregated across these dimensions and 0 for a country that is at the minimum value.

Source: Compiled on the basis of UNDP (2022) and the source data for figures in that report, available from: <https://hdr.undp.org/content/human-development-report-2021-22>.

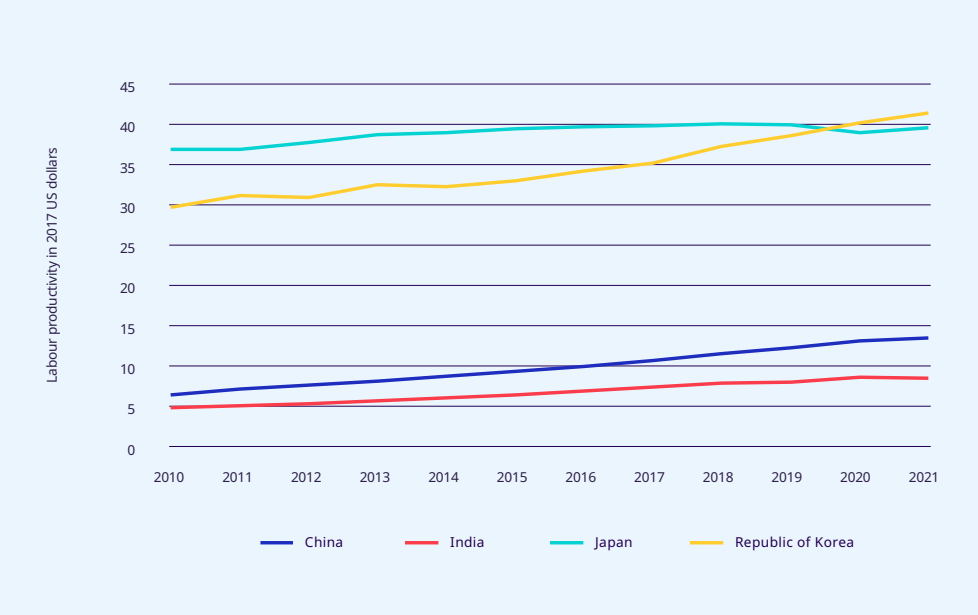
▶ 1.3. Factors influencing labour productivity

What are the current productivity trends in the countries studied in this book? Before addressing this question, it is important to note that labour productivity, measured as GDP or gross value added per hour worked or per worker, is one of the most widely used measures of productivity (OECD 2021). Capturing the efficiency with which inputs are used in an economy to produce goods and services, labour productivity allows one to gauge economic growth, competitiveness and living standards in a country (ILO 2016, 131).

Figure 1.2 below shows how labour productivity has evolved over the past decade (2010–21) in China, India, Japan and the Republic of Korea. This metric is significantly lower in China and India than in Japan and the Republic of Korea. While labour productivity has, on the whole, grown continuously in China, India and the Republic of Korea, it has somewhat stagnated in Japan in recent years. Labour productivity in all four countries was affected by the COVID-19 crisis, albeit to varying degrees.

Labour productivity is critical to economic growth and competitiveness (ILO (n.d.(b))), especially in an uncertain and competitive environment (Bušelić and Pavličić 2016). Higher productivity is linked to higher incomes and standards of living. Conversely, low labour productivity is regarded as one of the root causes of “working poverty”, that is, a situation where people work long hours and intensively but are unable to make ends meet. Raising labour productivity, along with ensuring that the benefits of growth are fairly distributed, is key to eradicating this negative phenomenon (ILO, n.d.(a)).

► **Figure 1.2. Labour productivity in China, India, Japan and the Republic of Korea, 2010–21 (2017 US dollars)**



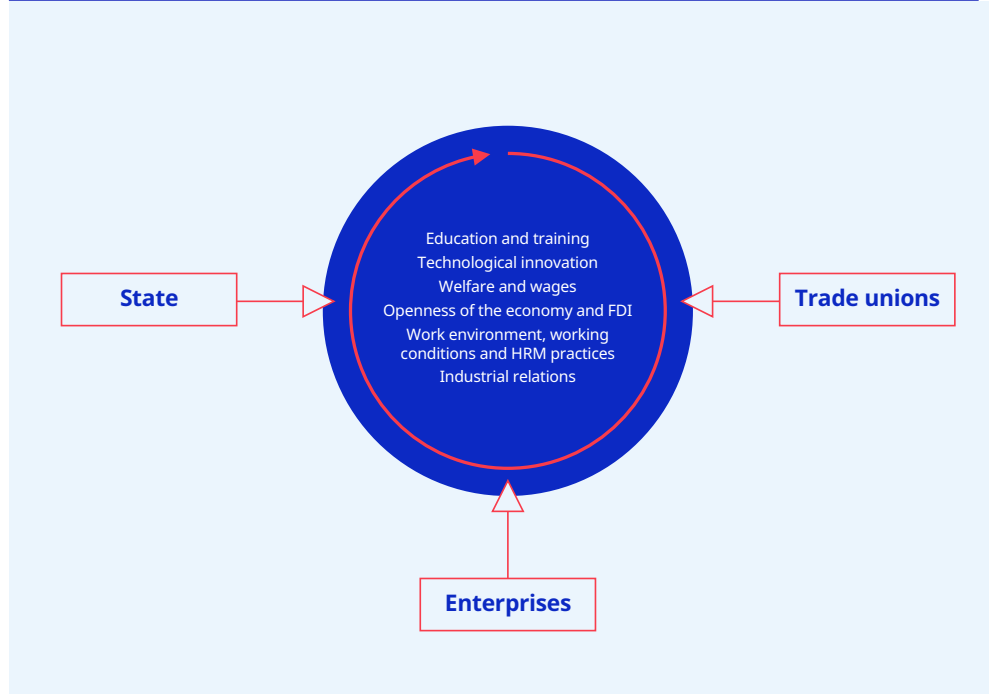
Source: Compiled from ILO (n.d.(c)).

Despite the difficulty of measuring labour productivity, existing research shows that several factors involving key institutional players at various levels (notably the State, enterprises and trade unions) are important when it comes to improving that indicator (see figure 1.3; see also Goel, Agrawal and Sharma 2017 for a comprehensive review). These factors are the focus of our discussion in the present book and include the following:¹

¹ The approach taken in this book is similar to the “productivity ecosystem” approach described in a document on decent work and productivity that was presented to the Governing Body of the International Labour Office in 2021 (ILO 2021).

- investment in human capital development, such as vocational education and training provided by the State and training and development opportunities provided by employers
- investment in technological innovation and level of technological progress
- level of social welfare provision
- wage levels and workplace benefits
- openness of the economy and, consequently, level of foreign direct investment (FDI)
- work environment and working conditions
- HRM practices
- industrial relations.

► **Figure 1.3. Factors influencing labour productivity**



1.3.1. Human capital

There is broad consensus that a skilled workforce is one of the most important drivers of a country's economic performance and competitiveness. As Porter (1990, 7) argues, “[a] nation’s firms must also develop the capabilities required to compete in more and more sophisticated industry segments, where productivity is generally higher.” According to Boxall (1995, 7), workforce capability “includes all the skills, abilities or competencies ... that contribute to the economic performance of those firms with operating activities or establishments in a nation”. In other words, it is about “what the workforce ‘can do’” (Boxall 1995, 7).

Existing studies note that high-skilled workers have contributed the most to overall labour productivity growth in Asian countries. In the service sector, a high-skilled workforce has been the main driver of labour productivity, suggesting that upskilling and training are instrumental in services-led development (Helble, Long and Le 2019).

At the country level, analysing panel data covering all large and medium-sized manufacturing firms in China over the period 2003–07, Liu and Lu (2016, 254) found that “(i) training helps boost firm productivity and wages; (ii) the higher the training expenditure per capita, the higher the increase in productivity and wages; [and] (iii) firms benefit more from training than workers.”

Despite the critical role of human capital in national productivity, many countries have been grappling with skills shortages not least because of insufficient investment in vocational education and training, mismatches between skills training and demand, and a lack of qualified trainers. For instance, in India, to combat the problem of youth unemployment and underemployment due to the lack of job skills, the “Skill India Mission” initiative was launched in 2015 to help young people acquire skills that can increase their employability and productivity in jobs. The scheme has led to a significant increase in the economic status of trainees after entry into the labour market; however, its success has been tempered by the unwillingness of jobseekers to migrate for work, by mismatches between the skills trained and the jobs available, and by a shortage of skilled trainers (Ghosh, Goel and Bhongade 2022).

1.3.2. Technological innovation and advancement

Technology is one of the engines of economic growth (Landau and Rosenberg 1986; Colecchia and Schreyer 2002; Nelson 2005). Firms are the main player in the processes of technological catch-up and innovation through which most workers are affected (Cirera, Comin and Cruz 2022). There is a significant divide in technological capabilities across firms and between developed and developing countries, which means that some workers are trapped in a vicious circle of low-technology, low-productivity and low-quality jobs. In addition, technologically sophisticated firms are more resilient to economic and other crises and more likely to be able to bounce back (Cirera, Comin and Cruz 2022).

A comparative study by Bhattacharya and Rath (2020, 465) found that “innovation affects the labour productivity positively” for large and medium-sized Chinese and Indian manufacturing firms, although “its impact on firm productivity is relatively weak in [the] case of India as compared to China.”

In reality, technological innovations often have job-displacing effects at the firm and industry levels across countries as a result of skills becoming obsolete and the replacement of humans by machines (Kletzer 1998; Kogan et al. 2022). Firms may sometimes not adopt a re-employment strategy to accommodate displaced workers if they want to reduce costs by cutting their workforce or if they want to undermine union power.

1.3.3. Social welfare

It has been argued that improved provision of social welfare reduces the financial burden of employers and encourages them to create more and better-quality jobs (see, for example, Esping-Andersen 1990). This welfare state model, often accompanied by compressed wage structures, has been adopted, with some variations, across Nordic and Western European countries. However, it may reduce the incentive both for individuals to seek employment (because of the generous welfare benefits) and for employers to hire workers with disabilities or migrants, who are perceived to be less productive and less skilled, as has been observed in Nordic countries, where enterprises are increasingly moving into high-skill activities (Halvorsen, Hvinden and Schoyen 2016).

The social welfare–employment dichotomy may be more intense in developing countries, where the State is not sufficiently wealthy to provide universal and comprehensive welfare coverage to its citizens and is under pressure to create jobs. As productivity may be relatively low and managerial competencies may be limited in many domestic firms that operate with a low profit margin, the adoption of high-road HRM practices may not be viable without adequate public subsidies. Even when firms are competitive, they may be more interested in pursuing profit than in investing in people, unless they have to in order to attract and retain skilled workers.

1.3.4. Wage levels and workplace benefits

Good wages and workplace benefits are important incentives for workers to increase their productivity and play a major role in consolidating the employment relationship (Block, Berg and Belman 2004). From an economic perspective, paying wages above the market rate is likely to motivate employees to strive for higher performance because they have more to lose if they lose their current job. This approach is known as the “efficiency wage” (Wadhvani and Wall 1991; Yellen 1995).

Empirical evidence corroborates the logic of higher wages for higher productivity. For example, using data from Eurostat, the Organisation for Economic Co-operation and Development (OECD) and the World Bank, Fatula (2018) found a strong correlation between wages and labour productivity in European Union countries, and likewise between the relative price level and average hours worked on the one hand, and productivity on the other. Similarly, drawing on World Bank Enterprise Survey data, Mawejje and Okumu (2018) examined the relationship between labour productivity and wages in manufacturing firms in 39 African countries. They found that “wages reflect labour productivity and worker skills” and that “the adoption of management quality standards, foreign ownership, and location in the capital city are all positively associated with wages” (Mawejje and Okumu 2018, 386).

Providing a wage floor, for example through minimum wage regulations, not only ensures that low-paid workers can enjoy an adequate standard of living but also improves productivity. In a study of the impact of the National Minimum Wage on productivity in low-paying sectors in the United Kingdom of Great Britain and Northern Ireland, Rizov, Croucher and Lange (2016, 819) found that the minimum wage “positively affected aggregate low-paying sector productivity”, suggesting that “living” wages may be productivity-enhancing, with strong policy implications. The main problem is that, in practice, many countries do not have a mandatory minimum wage, or, in the case of

those that do, the minimum wage is not set at an adequate level and sufficient coverage is not provided for different categories of workers.

It is important to note the intersectional effects of gender and other factors on productivity and wages. For instance, analysis of economic census data from Egypt by Said, Galal and Sami (2022) showed that “gender diversity is positively associated with productivity and wages in the knowledge-intensive service sector”, but that “there is a negative or no association between gender diversity and productivity and wages among less knowledge-intensive service and both high- and low-tech manufacturing firms.”

In some countries, performance-related bonuses and workplace benefits are traditionally used to top up wages. For example, the provision of subsidized canteen meals and transport services for commuting to work is part of the culture of many Asian countries, as is the handing out of gifts to employees on festive occasions. While meals and transport are mainly about economies of scale and efficient use of money, gifts symbolize goodwill and reciprocation, which are intended to motivate employees to work harder and stay with the firm. On the other hand, employees may be offended if the gifts offered by the company are below the financial value they expect. That may even lead to industrial conflicts and, consequently, productivity loss (Saini 2016). Some firms have begun providing workplace welfare benefits as an effective approach to improving employment relations (see, for instance, Lin, Yao and Zhao 2014).

1.3.5. Openness of the economy and foreign direct investment

Several studies have found that openness of the economy, as reflected in exports and FDI, is beneficial in terms of increasing the skill level of the workforce, technological innovation, managerial efficiency and, consequently, labour productivity (see, for example, Liu, Qiu and Yu 2017). Trade liberalization makes competition more intensive and reduces profit levels (Baldwin and Forslid 2000). In order to remain competitive, firms need to raise their productivity by investing in skills training, technological upgrading and managerial competencies. Those that fail to do so will not be able to survive for long.

Cross-country comparative studies suggest that, for FDI recipient countries to benefit from spillover effects, human capital development needs to be stepped up. For instance, a study of countries in Asia and the Pacific by Ahmed and Kialashaki (2023, 575) shows that the spillover effects of FDI inflows on labour productivity are “input-driven and highly dependent on absorptive capacity per worker”. Moreover, technology transfers and

human capital skills development, that is, the FDI spillover effects, were found to contribute significantly to raising labour productivity in China, Japan and the Republic of Korea (Ahmed and Kialashaki 2023).

At the country level, Le, Duy and Ngoc (2019) found that FDI and human capital had exerted a positive impact on labour productivity in Viet Nam in the long run, which suggests that policymakers need to devise plans to enable workers to improve their knowledge and skills if a country is to achieve sustainable development.

1.3.6. Work environment and working conditions

A productive workplace is essential to raising labour productivity. While enhancing managerial competencies can contribute to more effective management and thus workplace productivity, this needs to be supported by good managerial practices aimed at creating a conducive work environment (both physical and psychological) and working conditions. For instance, a study of activity-based offices in a large Swedish government agency by Haapakangas et al. (2018) indicates that satisfaction with the physical environment, privacy and communication is strongly correlated with self-rated productivity and well-being at work. Studying a multisite logistics company in Europe, Marsden and Moriconi (2011, 115) found that “good consultation and communication at the local level are associated with lower absenteeism” and that “lower absence is associated with higher efficiency, productivity, quality of the service, and profitability of the firm.”

Conversely, uncivil organizational behaviour, such as workplace bullying and violence, has been found to pose a risk to employees’ health, aggravating the risk of cardiovascular disease (Xu et al. 2019) and leading to emotional exhaustion (Anasori, Bayighomog and Tanova 2020), among other longitudinal consequences (Boudrias, Trépanier and Salin 2021). Similarly, research shows that burnout, often caused by a dysfunctional work environment, is among the most significant on-the-job hazards faced by workers today and a main cause of productivity loss (Maslach and Leiter 2022).

1.3.7. High-road HRM practices

As mentioned earlier in this chapter, high-road HRM is considered beneficial to improving workplace productivity. This is essentially an HRM model designed to encourage workers’ commitment, involvement and, ultimately, performance. Employee training, in particular, has widely been found effective with regard to improving productivity (see,

for example, Bartel 1994). However, the positive effect of employee involvement cannot be taken for granted. Rather, it is contingent upon the nature of the involvement, the workplace environment (Vranjes, Notelaers and Salin 2022) and the level of work–life conflict of the employee (Chen et al. 2018).

For instance, a study by Peutere et al. (2022, 853) looking at the benefits of high-involvement management practices found that the association between the intensity of the use of such practices and productivity was not always additive and that the benefits were most pronounced in industries where such practices were used least frequently, especially in the service sector. This suggests that firms need to consider what their high-road HRM practices entail and how they are implemented, so as to better align them with the workforce’s needs and expectations. Similarly, Datta, Guthrie and Wright (2005) found that contextual conditions, such as industry capital intensity, market growth and industry differentiation, influenced the effect of high-performance HRM practices on productivity.

1.3.8. Industrial relations

Labour productivity has been a main focus of research and practice in the field of industrial relations (also referred to as labour relations or employment relations). Collective bargaining and the resulting agreements are regarded as an important institutional mechanism for establishing a cooperative relationship between management and labour to ensure productivity (Buchele and Christiansen 1999; Katz et al. 1987; Kleiner, Leonard and Pilarski 2002). Looking at advanced capitalist economies, Buchele and Christiansen (1999, 87) argued that “cooperative labor–management relations encourage workers to make positive contributions to technical and organizational innovations that raise labor productivity” and that “an industrial relations system that secures strong worker rights fosters cooperative labor–management relations.” Similarly, Garrero, Rycx and Terraz (2020, 936) found, in the Belgian context, that “firm-level agreements benefit both employers and employees – through higher productivity and wages – without being very detrimental to firms’ performance.”

The positive effect of high-road HRM and industrial relations practices on labour productivity applies to developing countries as well. For instance, a study by Yang et al. (2018) of 264 manufacturing firms and 6,921 workers in China found that high-performance work systems were a key mechanism for realizing decent work, and that there was a synergy between such systems and trade unions in achieving higher levels of employee engagement. Moreover, a cooperative (as opposed to adversarial) industrial relations climate was observed to reinforce

that synergy, highlighting the importance of developing good industrial relations in the workplace (Yang et al. 2018, 553).

The effects of collective agreements on wages and productivity vary across countries, industrial sectors and firms, and are contingent upon contextual factors as noted above (Datta, Guthrie and Wright 2005). They also depend on the demographic profile of workers, notably on age, sex, and level and field of education (Ilmakunnas and Maliranta 2005). Older workers and women may be under-represented among those with technical education and less likely to belong to a trade union. They may, therefore, be under-compensated in relation to their productivity.

1.3.9. Combined and interactive effects of different factors

It is important to note that the above factors, and those that have not been explicitly discussed here, do not operate in isolation. Rather, they often have combined effects that may lead to a “virtuous” or “vicious” circle. Moreover, their effects may differ depending on the national context. For instance, globalization and structural change have been found to be the main drivers of labour productivity enhancement in China and India (Mallick 2015).

The combined effect of multiple factors on labour productivity can be more pronounced for some sectors and occupational groups than others. For example, Bhattacharya and Rath (2020, 465) found that “factors such as average wage of the workers, education of production workers and training do significantly boost the labour productivity of Chinese manufacturing firms as well as for Indian firms.”

A study by Dasgupta et al. (2021) dealing with the effect of climate change on labour productivity reveals that the times allocated for work and weather conditions can have a significant impact on labour productivity, particularly in labour-intensive industries. Specifically, those workers who have to perform their tasks outdoors and are exposed to severe weather conditions are likely to exhibit reduced productivity and this negative effect may be cumulative. Over time, this is expected to have “income and distributional consequences in terms of increased inequality and poverty, especially in low-income countries” (Dasgupta et al. 2021, e455). If management can find ways to improve working conditions – for example, by scheduling work so as to avoid exposing workers to severe weather conditions (such as extreme heat during the day) and by introducing digital assistive technology – this may help to preserve workers’ energy and health in the longer term and raise labour productivity (Liu, Zhang and Ren 2022).

For investment in one area to generate productivity gains, there has to be a similar investment or major changes in other areas. A case in point is the construction industry, which is one of the largest industrial sectors in most countries (as measured by GDP) and one that has long been characterized by relatively low levels of labour productivity (Belman, Druker and White 2021). As noted by Cooke, Dickmann and Parry (2023, 469), the industry “is undergoing some major technological changes, with implications for different occupational categories from architects and project managers to manual skilled workers ... Some construction companies are taking a more radical step than others in embracing new technology in building design, utilisation, maintenance and decommissioning as a response to workforce ageing, skill shortages, labour relations problems, climate change, energy transition and responsible consumption of materials.”

Similarly, the automotive industry is undergoing major changes with regard to vehicle design in connection with the transition from combustion engine-powered vehicles to electric ones. Companies in this industry are facing skills shortages as they seek to adapt to the new production paradigm. Despite widespread lay-offs, some companies are recruiting (digitally enabled) workers. The HRM-related challenges here include developing a workforce with the skills required for the digital future of work; designing HRM practices that enable workers to find sustainable employment, and firms and countries to achieve sustainable productivity; devising innovative HRM strategies to support the digital transition and the transformation of work; and establishing partnerships with trade unions to improve industrial relations.

As mentioned above, labour productivity is one of the main topics for researchers and practitioners in the field of industrial relations. In contrast, HRM studies have tended to adopt a relatively narrow focus on individual, team and organizational performance (see Budd 2020; Kaufman 2020 for critiques) instead of examining issues related to productivity. However, at the firm level, business strategy and HRM practices play a critical role in labour productivity. It is therefore high time to extend the discussion of labour productivity into the field of HRM and investigate how HRM policies and practices in workplaces are formulated within the broader context and how policymakers can incentivize firms to improve their productivity through high-road HRM. We recognize that there is considerable overlap between employee performance and labour productivity. Our intention in this book is to provide a multilevel analysis of institutional and organizational factors that shape labour productivity, thereby taking a different approach from the existing literature on HRM and performance, which focuses on the micro level and is increasingly behaviour-oriented.

► 1.4. Structure of the book

This book consists of six chapters, as described below.

Chapter 1, that is, the present introductory chapter, lays out the rationale for devoting our book to a human-centred approach to increasing workplace productivity – a topic that has not been receiving sufficient attention from researchers in recent years despite its importance for the sustainability of firms and national economies. It first explains why the four major Asian economies have been chosen for study. This is followed by an outline of key factors that influence labour productivity and the main challenges faced by countries in improving it. Also highlighted in this chapter is an important aim of the book, namely to generate interest in labour productivity – traditionally the preserve of industrial relations studies – from an HRM perspective. A summary of the book's subsequent chapters is provided as well.

Chapter 2 examines national and industry-level factors that shape productivity in China² and the role of labour productivity as a component of national productivity. It also examines firm-level practices aimed at increasing productivity. The chapter shows that, while there is growing evidence that businesses are adopting certain high-road HRM practices to improve the experience of their workers and thus productivity, many of the HRM methods used in workplaces are far from being human-centred or high-road. Employers' actions to improve labour productivity are primarily short-term and output-oriented, leaving the burden of human capital investment to sustainably enhance labour productivity to be shouldered by the State and individuals. As a result, labour productivity remains low in China in both relative and absolute terms, a situation exacerbated by significant disparities in the allocation of resources (including human capital) across regions, industries, and the public and private sectors. The chapter highlights a number of policy implications for the State and trade unions if China is to improve its labour productivity through a human-centred and more equitable approach to economic and social development.

Chapter 3 focuses on India, a country that has been plagued by low labour productivity. It examines the reasons for this and the attempts made by firms and the Government to remedy the situation. Some analysts argue that low productivity is a consequence of the Indian economy having been slow to undergo a structural transformation that moves surplus labour from agriculture and other informal economic activities to higher value-added activities in the non-farm economy. Not surprisingly, the lower labour productivity in the informal sector vis-à-vis the formal sector has been well documented. One reason for the difference between the two sectors is that globalization of the economy has prompted formal sector organizations to view their employees as a source of competitive advantage, rather than as a cost. Therefore, higher levels of job motivation are arising from the adoption of HRM practices and the provision of greater opportunities for job training and skills upgrading in the formal sector. In addition, unions confronted with liberalization policies have signed collective agreements that link wages to productivity. Attempts to improve productivity in the informal sector have been undertaken in the framework of programmes such as the ILO's SCORE programme and the Government's skills development initiatives.

Chapter 4 discusses the current situation regarding labour productivity in Japan. It shows that the increase in productivity is minor compared with the average for all G7 countries, and that the potential growth rate has decreased. As skills are one of the most important determinants of productivity, the chapter discusses traditional skill formation in large Japanese firms, especially under the "competence rank system", in which there is a strong correlation between in-house training and employee wages. Although the impact of training on productivity is significant, some firms have no or very limited training programmes for their employees. A number of regulatory measures are in place that may help to improve the country's human capital and promote equitable and inclusive workplaces. For example, the new Corporate Governance Code emphasizes respect for human rights and fair and appropriate treatment of employees, including caring for their health and ensuring a positive work environment. The Code also encourages firms to increase diversity in their workforce, particularly in managerial positions. However, not many companies have adopted decent work practices.

2 The four country studies appear in alphabetical order.

Chapter 5 examines the human-centred approach to workplace innovation in the Republic of Korea and its effect on firm performance and workers' well-being. The analysis draws on three company case studies and also considers the historical evolution of government policies supporting such innovation. In general, the country's firms do not score high on human-centred work practices, and there has been a declining trend over the past decade. The main reasons for this are an authoritarian management style; a labour-exclusive approach to innovation; a Fordist production regime; a lack of awareness among employers and trade unions regarding a human-centred approach to workplace innovation and its benefits; and adversarial relations between workers and employers.

Chapter 6, the final chapter, brings the book to a close by summarizing key findings and commonalities across the four Asian countries. Several of the main challenges faced by these countries in improving labour productivity are highlighted. Moreover, a number of avenues for future research are presented with a view to contributing to the policy debate on a high-road approach to labour productivity as an integral part of sustainable development.

► 1.5. Summary

The sustainable development of countries depends on sustainable labour productivity, which is shaped by several macro- and micro-level factors. In this book, we focus on just a few key factors that are closely related to HRM. We argue that a high-road approach to productivity needs to be underpinned by human-centred management practices. At the firm level, this includes investing in employees' skills, managerial competencies, good working conditions and a positive work environment, and decent wages and workplace benefits. At the national level, these HRM practices have implications for broader, important socio-economic outcomes.

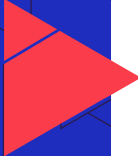
Accordingly, this book explores the key characteristics of productivity in four selected Asian countries and the contribution of labour productivity to those countries' overall productivity. In particular, it considers how firms there have adopted human-centred management practices to improve labour productivity and, ultimately, their own productivity. The book draws on academically informed, evidence-based research and seeks to appeal widely to policymakers, practitioners, researchers and students.

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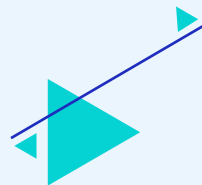
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2. Towards a human- centred approach to increasing workplace productivity: A multi- level analysis of China*

Fang Lee Cooke



► 2.1. Introduction

China¹ has experienced rapid and unprecedented economic and social development since the adoption of its open-door economic policy in 1978, making it the world's second-largest economy by 2022. However, this remarkable achievement has been driven largely by a low-cost and low-skilled export-oriented manufacturing sector, in which rural migrant workers have constituted the main source of labour supply (Meng 2000; Cheng 1982). According to international comparative statistics, labour productivity in China is relatively low. For example, the labour productivity of China, measured by GDP per hour worked (with GDP at purchasing power parity (PPP) in constant 2017 US dollars), was US\$13.8 in 2021, whereas the values for Hong Kong (China), Taiwan (China) and Macao (China) were US\$59.8, US\$53.5 and US\$50.0, respectively. China's labour productivity is far below that of leading economies such as Singapore (US\$73.7) (ILO, n.d.). Given the substantial amount of unpaid overtime worked in China, the actual labour productivity may be lower. However, the vast labour supply that has propelled China's economy in recent decades cannot be taken for granted because the country is experiencing low population growth despite the relaxation of the one-child policy since the 2000s. Demographic data show that the population is ageing and that the working-age population (those aged 15–64 years) is shrinking. For instance, in 2010, 74.5 per cent of the population were aged between 15 and 64 years and 8.9 per cent were aged 65 years or older; in 2020, those proportions were 68.6 per cent and 13.5 per cent, respectively (China, National Bureau of Statistics 2021). To sustain its economic growth rate, China needs to substantially improve its labour productivity.

As China looks to upgrade its economic structure and technological competence in the face of intensifying international politico-economic tensions and rising competition from other Asian countries with lower costs, the adoption of a high-road approach to human resources management (HRM) becomes necessary to increase employee well-being and labour productivity. What are the incentives, pressures and challenges for firms in adopting a high-road approach to HRM?

* The author would like to acknowledge the support of the Economic and Social Research Council (ESRC) is through the Digital Futures at Work Research Centre (grant no. ES/S012532/1).

¹ For the purposes of this chapter, "China" refers to mainland China. Similarly, the statistical information cited in this chapter applies to mainland China only, unless otherwise specified.

What are governments, employers and trade unions doing to support and promote enterprises' quest for high-road productivity? These questions are addressed here by drawing on secondary and first-hand empirical data.

This chapter consists of four main sections (2.2–2.5) together with the present introduction and a concluding section. Section 2.2 provides an overview of productivity in China at the national, regional, provincial and industry levels; section 2.3 examines the role of the State in raising productivity at the central and regional levels; section 2.4 discusses the corresponding role of trade unions as a key industrial relations actor at the national strategic level and the local operational level; and section 2.5 looks at emerging HRM practices adopted by firms to enhance (labour) productivity. The chapter concludes that, while there is growing evidence that businesses are adopting certain high-road HRM practices to improve the experience of their workforce and thus productivity, many of the HRM practices used in workplaces are far from being high-road or human-centred. In addition, the chapter highlights a number of policy implications for the State and trade unions if China is to improve its labour productivity through a human-centred and more equitable approach to economic and social development.

It is worth noting at the outset that this chapter does not intend to paint a rosy picture of productivity in China. Rather, it seeks to draw attention to what can be done by institutional actors (notably the State and trade unions) to help promote workplace productivity, and to identify emerging good practices at the firm level that support a human-centred approach to raising productivity and that deserve to be disseminated more widely. Another point that needs to be borne in mind is that measuring China's economic growth and productivity is very challenging, not least because of the distortion of prices, state intervention in the allocation of resources, and state control of many industries, in part through state-owned enterprises. These factors were more pronounced during the period when a centrally planned economy prevailed and in the first two decades of the open-door economy. The different accounting systems used by China and Western countries present additional complications as regards obtaining internationally comparable data on China (see, for example, Hu and Khan 1997). Finally, China is a large and diverse country. Any discussion of labour productivity, therefore, needs to be sensitive to the local institutional and economic conditions and human capital environment in order to generate a more nuanced understanding, since the macro-level picture may conceal substantial disparities across the country.

► 2.2. Productivity in China: A macro- and meso-level overview

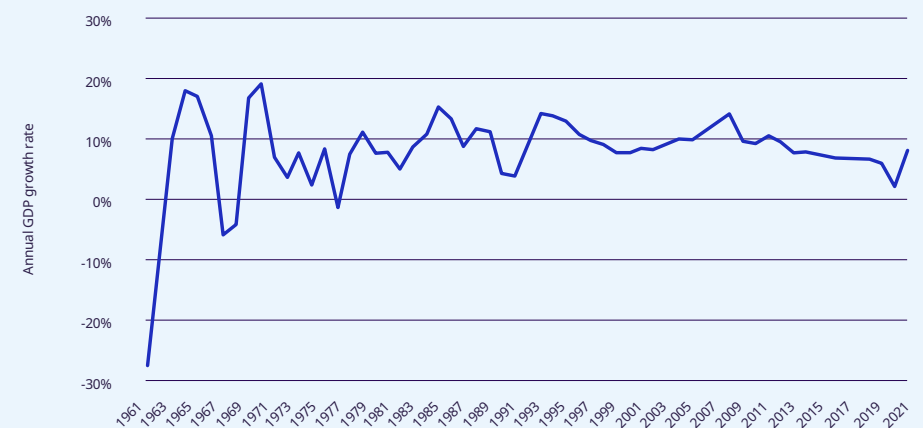
This section addresses two main questions. What factors contribute to China's productivity in its contemporary economy? And what is the contribution of labour productivity? It first outlines the key characteristics of China's post-1978 productivity in general, and then examines the extent to which the country's productivity growth can be attributed to labour productivity improvement or deterioration. It highlights a number of macro- and meso-level factors influencing labour productivity, such as the decline of the working-age population, which has led to a contraction of the workforce (mainly rural migrant workers) and talent shortages. Other factors associated with labour productivity are considered in the remainder of the chapter when discussing the role of the State, trade unions and employers with a view to identifying opportunities, bottlenecks and potential solutions for China to raise its labour productivity through human-centred policy and practice.

2.2.1. Productivity trends in China since 1978

China has experienced unprecedented economic growth since 1978, with an average annual GDP growth rate of 9.3 per cent between that year and 2014 (Zhang 2017; see also figure 2.1). Although there has been a downward trend since the early 2010s and a significant dip occurred in 2020 as a result of the COVID-19 crisis, the growth rate bounced back in 2021 (World Bank, n.d.(a)). An International Monetary Fund study suggests that China's economic growth during the period 1979–94 was largely due to a sustained increase in productivity following the economic reform that began in 1978. According to that study, productivity increased at an annual rate of 3.9 per cent during those years, compared with 1.1 per cent during 1953–78 (Hu and Khan 1997). China's economic growth has stalled since the global financial crisis in 2008 for several reasons, including the economic slowdown of

the countries negatively affected by the crisis and the size of China's economy, for the rest of the world would not have been able to keep up with the products produced and exported by China if its economy had continued to grow as quickly as between the late 1970s and the mid-2000s (Zhu, Zhang and Peng 2019). Population ageing and skills and labour shortages are additional factors behind this stalling. In the 2020s, the Government shifted its emphasis from a high economic growth model to a high-quality and sustainable growth path for the post-COVID-19 recovery. This is not least because, according to the World Bank (n.d.(b)), China's high growth based on investment, low-cost manufacturing and exports has, on the whole, reached its limits and led to economic, social and environmental imbalances. Reducing these imbalances requires shifts in the structure of the economy from manufacturing to high-value services, from investment to consumption, and from high to low carbon intensity.

► Figure 2.1. China's annual GDP growth rate, 1961–2021 (percentage)



Source: Compiled from World Bank (n.d.(a)).

China’s economic growth and productivity improvement since 1978 have been attributed to three main factors. First, its productivity level was low in the first place, which made any initial improvement relatively easy to achieve (Black and Morrison 2019). Second, labour productivity was substantially improved by reallocating human resources from low- to high-efficiency sectors – in particular, by shifting a large number of surplus rural workers engaging in the low-productivity agricultural sector to more productive urban jobs in industrial and service sectors and by shrinking the inefficient state-owned sector and expanding the private sector (Black and Morrison, 2019; Brandt et al. 2020; Cai 2018; Mallick 2015; Molnar and Chalaux 2015; Zhang 2017). A third factor is that China was able to offer access to its market in return for productivity-enhancing technology from foreign firms (Black and Morrison 2019; Molnar and Chalaux 2015). The sharp increase in the number of private businesses and the use of financial incentives, such as performance-related pay or bonuses, have played a significant role in raising labour productivity. Overall, this productivity boom can be ascribed to the market-oriented reforms that have taken place in the country (Hu and Khan 1997).

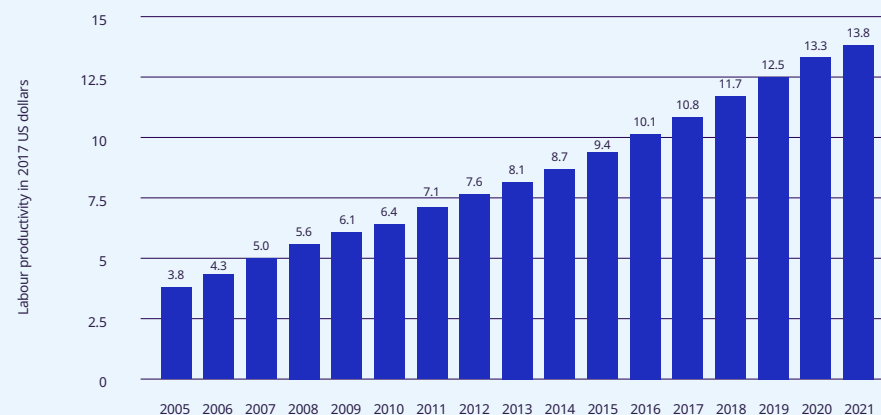
2.2.2. The role of labour productivity in GDP growth

Labour productivity is critical to economic growth, especially in an uncertain and competitive environment (Bušelić and Pavličić 2016). Despite the remarkable economic growth, labour productivity remains relatively low in China (see figure 2.2) and also in absolute terms compared with that in developed economies. Bušelić and Pavličić (2016, 407–408) have summarized the situation as follows:

Chinese labour productivity has had a long-term growth at an extremely high average rate of an annual 8.2% (1970–2012) and 8.9% in the period 1995–2012. The highest growth rate was realized in the period 2001–2007, namely 10.6% (OECD, 2014). According to data from the Asian Productivity Organization (APO), the whole Chinese economy has registered an average annual growth in labour productivity of 9.1% in the last two decades (1990–2010). The most significant growth in labour productivity was realized in the period from 2005 to 2011 when it amounted to 10.2% and reached the sum of 13.500 USD (9.700 EUR) of the GDP per employee. Although progress is evident, Chinese labour productivity in 2011 still represents only 14.5% of the level of labour productivity in the USA, that is 17.2% of the level in EU15 (APO, 2014). A high heterogeneity in the economic development of individual Chinese regions reflects in the trends of their labour productivity.

At the subnational level, labour productivity is highly uneven across the country, with the eastern coastal cities (such as Shanghai, Guangzhou, Shenzhen and Tianjin) and provinces (such as Guangdong, Jiangsu and Zhejiang) enjoying a much higher level of financial capital investment, human capital stock and, consequently, labour productivity than inland provinces and municipalities (Brandt et al. 2020; Chancellor and Lu 2016; Su and Heshmati 2011). A higher level of foreign and domestic investment in the eastern regions than in the western and central ones means that resources are unequally allocated across these regions, including human resources as a result of worker migration, which exacerbates the disparities (Bhattarai and Qin 2022). In addition, it has been argued that labour productivity in state-owned enterprises is lower than in private firms (Brandt et al. 2020), and that labour productivity improvement in the manufacturing industry, once the backbone of economic growth, has slowed down in 2022 and 2023 compared to 2021.

► **Figure 2.2. Labour productivity per hour worked in China, 2005–21 (in 2017 US dollars at purchasing power parity)**



Source: Adapted from Statista (n.d.(a)).

2.2.3. Factors influencing labour productivity

As shown by various studies, investment in research and development (R&D), innovation and equipment, openness to trade (for example, through exports), technological spillovers and human capital investment have all had a positive effect on China's labour productivity improvement and wage growth (Bušelić and Pavlišić 2016; Cheng and Deng 2020; Herrerías and Orts 2012; Kang and Peng 2018). In particular, Liu et al. (2001, 421) have argued that “[f]oreign direct investment (FDI) may have a positive impact on labour productivity in recipient industries through direct introduction of capital, technology and management skills and indirectly through spillover effects on domestic firms.” Bhattarai and Qin (2022) found that the spreading of FDI from the eastern regions of China to the western ones was a driver of labour productivity convergence across the regions.

Bušelić and Pavlišić (2016, 408) observed that “[t]he labour productivity of the Chinese manufacturing industry grows at an average annual rate of 7% (2000–2009) and contributes to the total labour productivity growth rate with 2.9 p.p. [percentage points,] which accounts for 31% of the total labour productivity growth.” The authors conclude that “connected and complementary technological, social, educational and institutional changes, along with an efficient adjustment of economic policies as well as a gradual liberalization and opening of the economy”, such as that found in China, “can lead to an increase of labour productivity in the manufacturing industry, to long-term economic growth and higher global competitiveness of the country” (Bušelić and Pavlišić 2016, 417).

Given the limited provision of training and development opportunities in firms and the fact that a large proportion of workers are in informal employment, on-the-job learning is critical in raising productivity, especially for rural migrant workers. For instance, Ye et al. (2019) found that the impact of migrant workers on total factor productivity was very significant. They argue that the main reason for this is the improvement of migrant workers' quality, achieved mainly through “learning by doing” (Ye et al. 2019, 1).

It has been pointed out in the literature that investment in social security has two different types of effects on labour productivity: a cost effect and an incentive effect (Cheng and Deng 2020). Employers in China largely see the social security premium as a substantial labour cost to be avoided by not signing employment contracts with

their employees or by relying on non-standard employment. Using data from employer–employee matched surveys at the enterprise level, Cheng and Deng (2020) found that, as far as the impact of social security on labour productivity was concerned, the incentive effect was stronger than the cost effect. In particular, they found that a 10 per cent increase in social security investment per capita translated, on average, into a 3.5 per cent increase in labour productivity. Their findings further suggest that enterprise productivity is improved by employees who have been motivated by the enterprise investing in social security for their benefit, although this poses serious financial challenges for smaller private companies that have low profit margins. Cheng and Deng (2020) conclude that, given China's relatively low level of economic and social development and low social security coverage, higher social security investment and more effective social security policies can induce enterprises to pay greater attention to employee welfare, so that employees are more motivated to work and contribute to the continuous improvement of enterprise productivity.

In contrast, Wu (2007, 69–70) argues that “China's industrial reform has been largely investment-driven” and that “[o]ver-investment in many industries has brought about strong growth and rapid welfare improvement through rising labour productivity, but it is inefficient and unlikely to be sustainable.” Molnar and Chalaux (2015, 7) concluded that labour productivity growth in China was mainly due to within-industry growth achieved by tapping into global knowledge through FDI (foreign-funded subsidiaries, mergers and acquisitions, and joint ventures). Moreover, a study by Li et al. (2022) of a sample of Chinese manufacturing firms from 2007 to 2019 found that uncertainty regarding economic policy had a negative effect on firms' labour productivity, but that this could be greatly mitigated by “industrial intelligence”, which the authors define as comprising three main aspects: (a) infrastructure construction; (b) production application; and (c) competitiveness and efficiency.

Meanwhile, wage arrears and informalization of employment are widespread, especially among rural migrant workers. Over 60 per cent of urban workers are engaged in informal employment, largely because of employers' reluctance to assume greater responsibility, for example in the form of social security contributions (Cooke 2021). These findings highlight the patchy nature of labour productivity improvement. There is significant scope for further increases in labour productivity, at least in part by overcoming the challenges outlined in the following subsections.

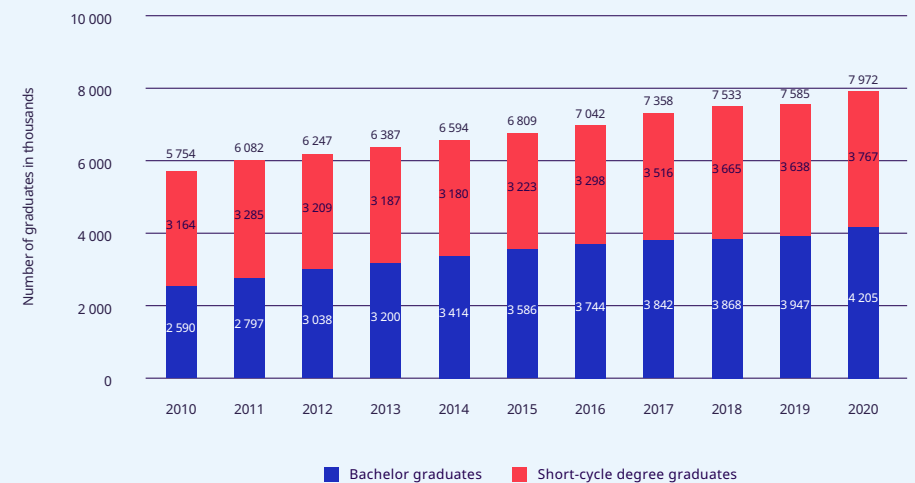
2.2.4. Demographic change and its impact on productivity

As in many developed countries, China’s population growth rate has been declining over the past decade or so despite the adjustments to population policy since the mid-2010s that ended the one-child policy introduced in 1980. China’s economic acceleration during the past 40 years relied to a large extent on surplus rural labour migrating to urban areas to take up construction and manufacturing jobs and provide services such as cleaning and catering, yet that resource is increasingly in short supply. This means that the demographic dividend that drove the economic development is no longer sustainable. In the decades to come, China will experience a continuing decline in the working-age population and a reduction of labour supply, including that provided by rural migrant workers. As a result, economic growth will stall unless there is a substantial increase in labour productivity (Black and Morrison 2019). The most effective way to achieve that is through a better educated and higher-skilled workforce – a point we will come back to when discussing the role of the State (section 2.3).

2.2.5. Talent shortages

Human capital is an important factor that contributes to long-term economic growth (Becker 2009) and China is no exception in that regard (Herrerías and Orts 2012). Although several millions of students graduate from Chinese universities every year (see figure 2.3 for 2010–20; there were over 8 million new graduates in 2021 and nearly 11 million in 2022), employers are encountering increasingly severe skills shortages. Indeed, one of the key challenges hampering China’s economic development during the four decades since the opening up of the economy in 1978 is the growing shortage of talent, despite the dramatic expansion of the higher education sector in the early 2000s. For example, China was ranked 42nd out of 132 countries in the Global Talent Competitiveness Index 2020, though that was nevertheless a substantial improvement from 54th place in the 2017 ranking (Lanvin and Monteiro 2020). There is a growing mismatch between talent demand and supply, with regard not only to the quality of employees (both in terms of aptitude and attitude) but also to the mutual expectations of employers and employees. On the one hand, employers require employees with technical skills and the willingness to work hard during long hours; on the other hand, university graduates have a high level of academic knowledge but no practical knowledge or skills, yet they are eager to receive rapid pay rises and promotions.

► Figure 2.3. Number of graduates from public colleges and universities in China, 2010–20 (thousands)



Source: Adapted from Statista (n.d.(b)).

Several global and national factors are compounding the uncertainty of business environments in the 2020s, with implications for the type of talents needed and how they are managed. One such factor is the Government’s awareness that China has already lost its cost advantage from cheap labour to less developed countries and that a low-cost, low-skilled development strategy is not sustainable, which has prompted it to actively promote a knowledge economy, the development of high-tech firms, and technological upgrading in the manufacturing sector through “smart manufacturing”. For example, “Made in China 2025”, one of the national strategic initiatives launched by the Government in 2015 to facilitate China’s transition from a “large manufacturing country” to a “strong manufacturing country”, emphasizes innovation powered by digital technology and artificial intelligence (Kania 2019). The success of such a strategic shift hinges on, inter alia, a well-educated workforce equipped with the skills and knowledge required by employers. As local governments play an important role in regional and municipal economic affairs and seek to develop their own strategic

industries and flagship companies, they compete with one another to attract talent through favourable policies, such as the provision of housing, access to good schools for children, additional healthcare insurance, relocation packages and generous remuneration (Zhao et al. 2023). This competition exacerbates the problem of talent and skills shortages in less developed regions, entrenching and even widening regional economic and labour productivity disparities.

Moreover, during the COVID-19 pandemic, many traditional manufacturing companies had to close down or were forced to adopt robotics technology at an even faster pace. A large number of workers with digital manufacturing skills are needed in the sector as it undergoes further transformation, but there is a severe shortage of such workers. At the same time, technologically upgraded companies are, on the one hand, making semi-skilled workers redundant and, on the other, recruiting new employees with digital and other skills.

Another factor is the Government's commitment to net zero emissions as a way of tackling climate change. This entails the closure or transformation of some traditional companies and industries and the creation of new, "green" sectors and enterprises, for which the education system is not yet well positioned to develop talent. The severe shortage of workers with digital and green skills has major implications for the ability of businesses to become digitally enabled or digitally driven, to embrace the concept of a green economy and, in some cases, to move into the green sector.

This section has provided an overview of China's economic growth since 1978, the contribution of labour productivity to this growth, and factors influencing labour productivity at the national and sectoral levels. It has also highlighted the human capital challenges that are likely to constrain economic growth in the years to come. The next section discusses what the State can do to promote a human-centred approach to raising labour productivity that will contribute to the country's long-term economic and social development.

► 2.3. The role of the State in raising productivity

As discussed earlier in this chapter, China's open-door economic policy implemented from 1978 onwards has led to the growth of FDI, the transfer of technology, dissemination of managerial know-how, the shifting of millions of farmers from agriculture into industrial and service employment in urban areas, greater market competition and a rising level of human capital. All these are important factors for labour productivity improvement. However, labour productivity in China remains comparatively low and uneven across regions, industrial sectors and ownership forms because different regions, industries and types of firm are characterized by different levels of structural constraints and resources (notably financial resources, human capital and management capability). Moreover, China's earlier economic model based on a massive labour supply and low wages cannot be sustained because of demographic change. In order to maintain economic growth, it is important not only to improve labour productivity further but also to achieve this in a more equitable manner. The promotion of a human-centred approach to raising labour productivity and, ultimately, fostering social development is particularly important now that China is shifting to a path of high-quality and sustainable growth in line with the Government's aspirations. In this section, we examine the State's role in the following critical areas and their implications: (a) economic policy for a more balanced development; (b) education policy to support human capital development; (c) public health policy; and (d) labour policy for improving labour standards and labour market equality.

2.3.1. Economic policy for a more balanced development

China's economic development has been characterized by uneven resource allocation not only between the public and private sectors but also between the eastern and western regions. Noting that "the effects of human capital and FDI on productivity convergence are asymmetric across provinces and sectors", Bhattarai and Qin (2022, 1) conclude that economic policies promoting competition and more equal distributions will be "better for convergence in labour productivity across provinces and sectors in China".

Similarly, most of the special economic zones and science parks in China are located in developed eastern coastal regions to attract foreign investment, high-performing companies and talented individuals, the ultimate aim being to stimulate innovation, exports and economic development. These zones and parks are mostly subsidized by local governments through favourable policies, tax reductions and other incentives. Although place-based economic policies have their limitations, they have proven to yield positive results in China with regard to raising productivity and fostering economic growth. For instance, in a study of the special economic zone in Shenzhen in southern China, Koster et al. (2019) found that firm productivity was approximately 15 to 25 per cent higher as a result of the opening of science parks in the Shenzhen area. As wage levels at firms in such zones and parks are usually higher than outside, they are able to attract a younger workforce of better quality (measured in terms of education, skill level and self-discipline), which further raises productivity. The State should provide more incentives for the less developed regions to set up similar special economic zones, science parks and incubation centres to stimulate economic growth and firm productivity.

2.3.2. Education policy to support human capital development

Despite the rising level of educational attainment in China as a whole, as reflected especially in the remarkable expansion of higher education since the early 2000s, the situation in rural areas remains unsatisfactory, in terms of both formal educational attainment and the quality of education. Many rural children left behind by parents who have migrated to the city for work either drop out of school early or eventually join their parents in the large urban centres, where they suffer from inferior access to public services, including education and healthcare

(Wang and Liu 2018). The level of educational attainment of girls is lower than that of boys in rural areas, which has a significant impact on their prospects of gainful employment and on the productivity of the female workforce, since some of these girls will later migrate, albeit temporarily, to urban areas in search of employment. Examining the impact of workforce gender composition on firm productivity, Tsou and Yang (2019, 19) found that, all things being equal, "increasing the fraction of highly educated female workers significantly improves firm performance" in all private firms, and that small firms benefit more from gender diversity among employees with a high level of education than medium-sized and large firms.

Central government expenditure on education remains relatively low in terms of percentage of GDP, while local government expenditure varies significantly (Kang and Peng 2018). In poor regions, funds for education may be misused and teachers employed by local governments are often faced with wage arrears. Leading universities are mostly located in developed regions. In addition, the current approach to education is not conducive to innovation and creativity, which are the principal drivers of growth (Bai, Sun and Chiu 2020). Education reform is needed to develop human capital more strategically and effectively, which implies focusing not so much on abstract learning as on the acquisition of practical skills and business acumen.

On top of these challenges related to the development of human capital is the problem of its misallocation. For one of the most salient features of the Chinese labour market is the imbalanced allocation of human capital across industries and between the private and public sectors, in that workers tend to opt for public sector employment (which brings job security and prestige) and for jobs in high-income monopoly industries, such as financial services and utilities. Yian (2019) found that the misallocation of human capital reduces total factor productivity significantly by hampering the upgrading of industrial structure, technological innovation and labour productivity. This suggests that policy interventions are necessary to introduce incentives that would cause more human capital to be channelled into innovative and entrepreneurial activities, thereby increasing productivity.

Finally, programmes for the development of managerial competencies can help to improve productivity. A study of matched employer-employee data by Cheng (2018) shows that managerial efficiency has a significant positive causal effect on labour productivity in enterprises and is an important driving force for these to enhance labour productivity. This is because enterprises with high managerial efficiency can attract higher-quality employees, introduce advanced equipment

more easily, share knowledge within the enterprise more effectively and achieve higher product quality. Cheng’s finding is not unique to China but does suggest that greater investment in the development of managers’ skills to improve managerial efficiency, something that the Chinese Government undertook intensively during the 1980s and 1990s (Warner and Goodall 2010), would be highly beneficial in terms of improving labour productivity. In addition, Cheng (2018) has suggested that the Government could use public procurement, special financial subsidies and other methods to encourage managers and entrepreneurs to participate in various high-quality training and development programmes with a view to acquiring contemporary professional managerial skills (as opposed to traditional approaches to management).

2.3.3. Public health policy

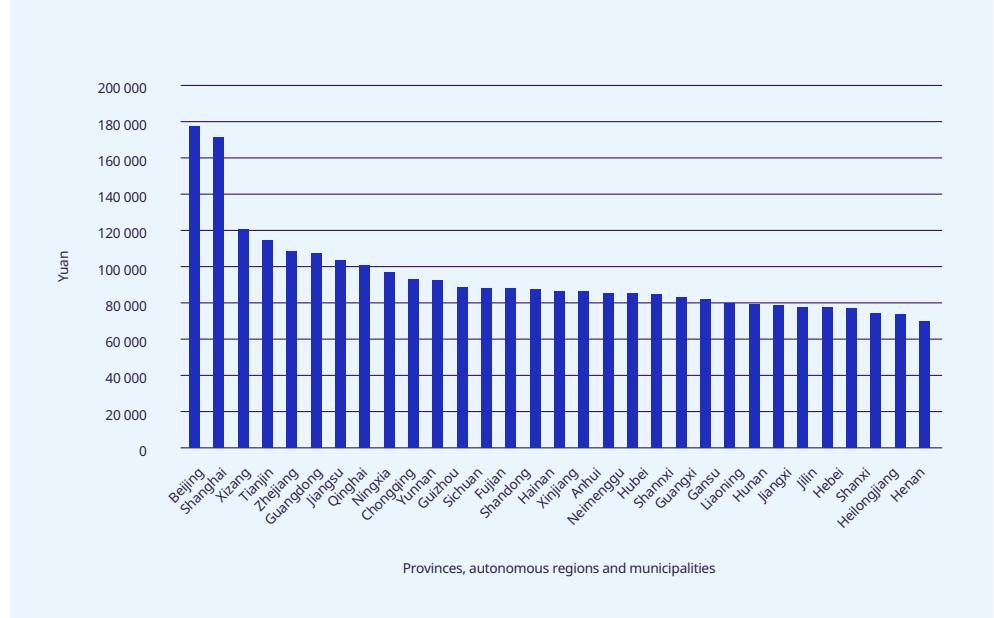
As noted by Feng, Xia and Kong (2018, 319), public health expenditure “plays a significant role in promoting non-agricultural labour productivity and agricultural labour productivity through improving people’s cognitive abilities”. In particular, “public health expenditure has a greater impact on areas with lower economic development” (Feng, Xia and Kong 2018, 319). These findings not only provide part of the explanation for the economic disparity across the country’s regions but also have important implications for public health expenditure and investment.

The State can target specific health problems and launch appropriate interventions. For instance, according to Hird et al. (2019), there were an estimated 56.4 million working-age people in China in 2017 (7.1 per cent of the total) suffering from diabetes. Based on GDP per full-time worker in 2017, the loss in productivity-adjusted life years amounted to US\$2.6 trillion in lost GDP owing to reduced productivity, with an average of US\$45,959 lost per person with diabetes. Since their study “demonstrates the significant cumulative impact of diabetes on productivity across the working lifetime in the Chinese population”, Hird et al. (2019, 1995) emphasize the “potential economic benefits of diabetes prevention in the longer term”. This is an area in which public health policy can clearly play a role by educating and directing the population towards a healthy lifestyle, even though not all types of diabetes can be prevented. Similarly, state-initiated health promotion programmes and public health policy initiatives can be supported by employers – for example, through employee assistance and wellness programmes – to improve the health and well-being of workers, thereby helping to raise productivity.

2.3.4. Labour policy for improving labour standards and labour market equality

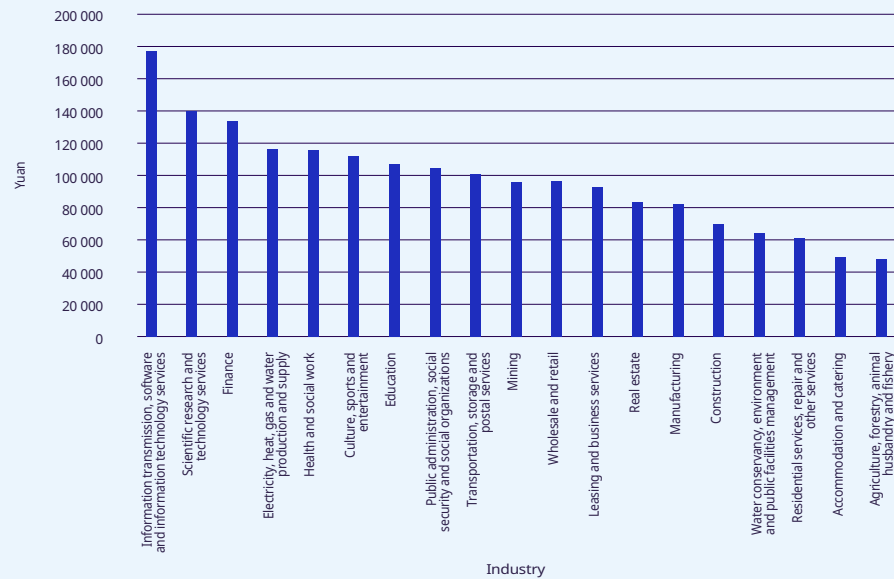
Decent employment terms and conditions, including wage levels, are essential to increasing labour productivity. Wage levels differ widely across China’s regions (see figure 2.4) and industrial sectors (see figure 2.5). Wage growth has been slower and smaller than economic growth in general, despite wages being pushed up by skills and labour shortages since the mid-2000s (see figure 2.6), resulting in a persistently high Gini coefficient (see figure 2.7). As the minimum wage is determined by provincial and municipal governments on the basis of the local average wage level and local governments influence the average wage to some extent, the State should encourage these to promote wage increases, making it easier for the governments of poorer regions to do so through subsidies and favourable policies.

► **Figure 2.4. Average wage across various Chinese provinces, autonomous regions and municipalities, 2020 (yuan)**



Note: 1 yuan ≈ US\$0.15 in 2020.
Source: Compiled from China, National Bureau of Statistics (2021).

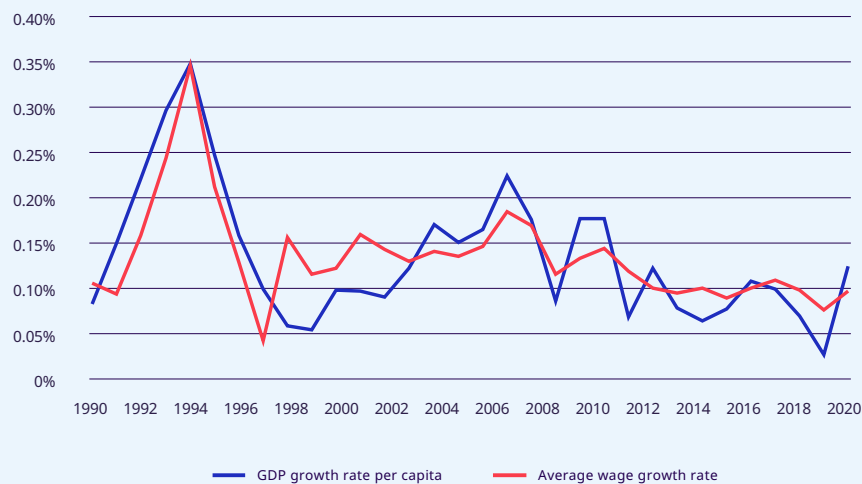
► Figure 2.5. Average wage across various industries in China, 2020 (yuan)



Note: 1 yuan ≈ US\$0.15 in 2020.

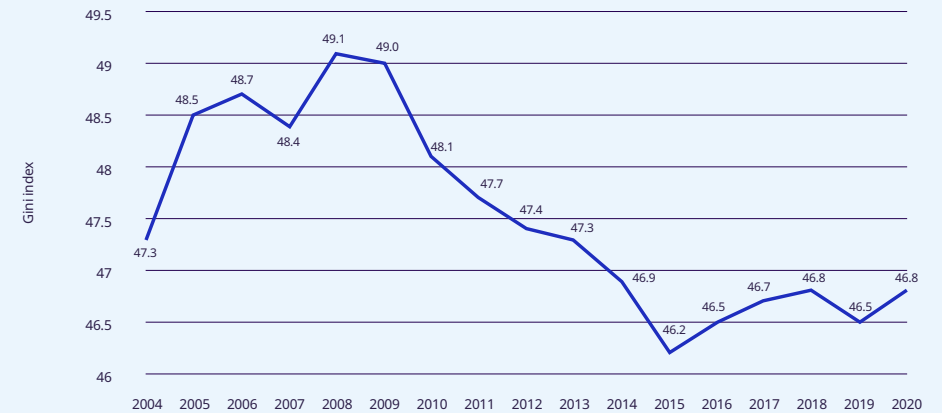
Source: Compiled from China, National Bureau of Statistics (2021).

► Figure 2.6. Gross domestic product growth rate per capita and average wage growth rate in China, 1990–2020 (percentage)



Source: Compiled from China, National Bureau of Statistics (2021).

► Figure 2.7. Gini index: Inequality of income distribution in China, 2004–20



Source: Adapted from Statista (n.d.(c)).

A relevant labour market dynamic in China is the fact that, since graduate employment is a performance indicator for universities, students are often “encouraged” by their university to find an employer and sign an employment contract or become an “entrepreneur” (self-employed) before they graduate. The second of these paths deprives young graduates not only of employment security and other social security protections but also of opportunities to develop their skills and competencies further by receiving training from their employer, though not all employers are willing or able to invest in talent development. A high self-employment rate also increases the constraints on the State in organizing training and development to raise the level of human capital.

At the same time, the Government’s adoption of a three-child policy in 2021, which lifted the restriction on the number of children that each married couple may have, has led to a renewed wave of discrimination against young women by employers seeking to avoid employment

costs associated with maternity leave and childcare (Lindberg 2021; Zhu et al. 2022). This means that many women may not be given the opportunity to fully realize their potential and to receive training from their employment organization that would help to raise their productivity in the long term.

Inadequate labour standards and labour market inequalities not only undermine workers' rights and welfare but also erode their well-being and motivation, which are essential for gainful employment and labour productivity. As mentioned earlier, wage arrears and informalization of employment have been distinctive features of the Chinese labour market for some time (Cooke and Brown 2015). Non-compliance with labour laws often goes unpunished (Cooney 2007). There is much scope for the State to improve its regulation of labour with regard to both extending the coverage of protection to workers in informal employment (including forced self-employment as in the case of takeaway delivery riders) and monitoring of compliance. In addition, the State can promote collective bargaining more effectively through the trade unions, which are an important stakeholder in employment relations and labour productivity, as discussed in the next section.

► 2.4. The role of the trade unions

Research and practical evidence suggest that trade unions can play an active and positive role in raising productivity in various economies, including the Chinese one.² The All-China Federation of Trade Unions (ACFTU) is the only officially recognized trade union in the country; it operates under the guidance of the Chinese Communist Party and receives financial support from the Government to carry out its functions at various administrative levels (Cooke 2020). This section examines the role of the ACFTU organizations in general, while their role in the workplace will be covered in section 2.5, which deals with HRM practices that affect labour productivity at the firm level.

2.4.1. Dual functions of the ACFTU: Production and protection

The functions of the ACFTU are typical of those defined for the trade unions in socialist countries (see Clarke 2005). According to the typologies presented by Ross Martin in 1989, Chinese trade unions fall within the "authoritarian" category as "State instruments" performing a "decisively subordinate role" that is "concerned with *both* production and protection" (Martin 1989, 70 and 78; original emphasis). In other words, trade unions assume a dual function of organizing workers in ways aimed at helping to improve the enterprise's productivity on the one hand (for example, through employee suggestion schemes, problem-solving teams, skill contests and welfare activities), and at representing the workers and defending their rights and interests on the other. During the state-planned economy period, the ACFTU's role was largely confined to facilitating production. Its inadequate representation of workers became more and more evident following the economic reforms launched in 1978 (Cooke 2020). Nevertheless, ACFTU organizations are adapting to the protection role by engaging in collective consultations, the defence of workers' rights and labour dispute resolution.

² This section is based partly on Cooke (2020).

In November 2015, the Government called for another wave of union reform through the ACFTU Reform Pilot Programme, whereby ACFTU organizations are expected to strengthen three dimensions (*zengsanxing* 增三性) and remove four dimensions (*qusihua* 去四化). *Zengsanxing* refers to enhancing the “politicalness” (as reflected in adherence to the Party’s agenda); “advancedness” (in terms of, say, thought leadership and being up to date with technology); and “mass nature” of trade union work (that is, working with the grassroots workforce). *Qusihua* refers to “de-bureaucratizing”; “de-aristocratizing” (since higher-level trade union officials sometimes behave like aristocrats and are detached from the ordinary workers they are supposed to represent); “de-entertainment-orienting” (since too much energy and resources may be spent on entertainment as part of union activities); and “de-administratizing” (since some unions have been criticized for operating like administrative organizations) (ACFTU Reform Pilot Work Leading Group, 2017). The ACFTU organizations at the provincial and municipal levels have responded by implementing a number of initiatives, which then cascaded down to lower levels of the ACFTU hierarchy. Initiatives have taken various forms, reflecting local conditions, and some of them have been extended to unionized enterprises. Reports from the official websites of provincial and municipal ACFTU organizations indicate that the reform programme’s main objectives are to simplify the organizational structure of unions through mergers and downsizing, to ensure a greater connection with the grassroots, to build competence, and to digitalize the services offered by unions to workers and their communication with these.

The ACFTU is also aligning itself with national strategic development plans. When launching the “Made in China 2025” plan in 2015 to comprehensively upgrade China’s manufacturing industry, the Government raised the issue of “transforming and upgrading” the industrial workforce as well. In 2017, the ACFTU proposed to focus on strengthening skills development among the industrial workforce to support the innovation-driven strategy. In other words, the ACFTU’s productivity enhancement function is being emphasized. In addition, enterprise union organizations have launched new initiatives to improve rank-and-file workers’ welfare and well-being (see the next subsection).

2.4.2. Collective consultation and collective contracts

The concept of collective bargaining was introduced in employment relations in China in the early 1990s, after the Trade Union Act (1992) authorized unions at the enterprise level to conclude collective contracts with employers. The State authorities prefer using the term “collective consultation” rather than “collective bargaining”: they maintain that consultation is a more constructive approach than bargaining, as it is in keeping with the Chinese culture of non-confrontation and conflict avoidance. In 1994, the Ministry of Labour and Social Security issued detailed regulations to support the implementation of the provisions on collective contracts laid down in the Labour Act of the same year (Taylor, Chang and Li 2003; Brown 2006). Unions have been officially tasked with representing workers in consultations with employers. The unions’ role in this process was reinforced and expanded through the amendments made in 2001 to the Trade Union Act of 1992 and the improved regulations on collective contracts, which were issued in 2004 and superseded the 1994 regulations. In line with the amended Trade Union Act, a union is required to represent employees when negotiating and signing a collective contract. The matters that may be covered by a collective contract include pay, working time, rest breaks, vacations, occupational safety and health, training, insurance and welfare. In addition, local labour authorities are responsible for facilitating and monitoring the consultation process.

This tripartite consultation system is an important mechanism for the Government, unions and enterprises to strengthen social dialogue and cooperation in coordinating labour relations. Although many workers are still not aware of, or participate in, collective consultations or the arrangements under collective contracts, several good collective agreements that benefit workers have been concluded through genuine bargaining since the system was introduced. The scope of collective contracts is widening to cover a range of aspects relevant to labour standards, though pay remains the major issue (Lei 2017). The ACFTU is also pushing for collective contracts that provide broad coverage, notably region-based and industry-wide contracts.

However, there is still room to improve the collective contract system that has emerged since the late 1990s (Lee, Brown and Wen 2016; Lei 2017). For a start, the consultations do not provide an independent framework for regulating employment relations. Most collective contracts are standard agreements made between the employer and the union without the direct involvement of workers or any real negotiation process. Where there is collective bargaining, it takes place mostly at the enterprise level. The Government has been trying to

promote industry-based bargaining, or multi-establishment bargaining for enterprises (often multinational firms) that have operations in various parts of China. However, region-wide or nationwide collective contracts may be too broad to take local needs into account. This gives managers an excuse to ignore local union representatives (Cooke 2012).

In their study of the evolution of collective bargaining in the country, Lee, Brown and Wen (2016, 229) observe that, although it is true that workplace labour relations are carefully controlled by the local federated trade union, “the new election practices for enterprise union committees and wage bargaining create an institutional space for rank-and-file workers to articulate their views and to negotiate with management at the workplace.”

2.4.3. Unions, productivity and wage increases

Empirical evidence points to a positive relationship between trade unions and workers’ wage level, productivity, welfare, job satisfaction and employment relations – a relationship that manifests itself in various ways. For example, Fang and Ge (2012) found that the presence of trade unions and their productivity-oriented role – as reflected, for example, in their questioning the legitimacy of management decisions and putting forward productivity-enhancing suggestions – encouraged firms to innovate and to invest in R&D. Drawing on provincial-level data from the period 1994–2008, Budd et al. (2014, 185) found that “union density does not affect average wage levels, but is positively associated with aggregate productivity and output.” These findings support the argument that ACFTU organizations act mainly “as agents of the enterprise and the state in delivering productivity enhancements at the expense of, rather than through the cooperation of, workers” (Budd et al. 2014, 203).

In a study of four local union organizations during 2005–07, Liu (2010) identified considerable differences in organizing strategies and their effect on workers’ collective wage bargaining. Other researchers have arrived at more positive conclusions. For instance, a smaller-scale study by Yao and Zhong (2013) drawing on single-year data revealed a positive relationship between union presence and wage increases. A survey of rural migrant workers by Booth et al. (2022) found that those in workplaces with active unions tended to earn more and were more likely to have a written employment contract with social security coverage, to receive fringe benefits and to voice work-related grievances through official channels. Such workers also generally felt more satisfied with their lives and were less prone to mental health problems.

2.4.4. Unions and occupational safety and health

Improving occupational safety and health is one of the ACFTU’s key priorities. Given that a safe and healthy work environment contributes directly to workers’ well-being and workplace productivity, ACFTU organizations can have a tangible impact by, for example, educating employees and conducting workplace inspections. Indeed, unions should make effective use of the institutional and resource support that they receive from the State and seek to play a greater role in improving labour standards more generally. They can adopt a broader approach to understanding and handling such issues. For example, occupational safety and health should include the protection of workers in extreme weather conditions (in the summer of 2022, several workers were reported to have died of heat exhaustion in China because the private companies for which they worked had provided inadequate cooling facilities to save costs).

Liu, Zhang and Ren (2023, 1) found that high-temperature weather was negatively correlated with labour productivity and that the impact was most pronounced in non-state-owned enterprises, heat-sensitive industries and in southern China. Among the measures that could be adopted by firms to alleviate this negative impact were increased remuneration for their employees and digital transformation. Their study has implications for firms that require workers to work in severe weather conditions.

As climate change is affecting many parts of the planet, extreme weather is likely to occur more frequently, exposing millions of workers to harsh weather conditions in developing countries such as China. At an aggregate level, climate change is expected to reduce global productivity because workers may have to work fewer hours and be less productive during working hours as a result of their adopting a slower pace of work, making more mistakes and experiencing more accidents and injuries (Dasgupta et al. 2021). ACFTU organizations are well placed to develop innovative ways to help companies in addressing such issues.

Moreover, the role of trade unions in occupational safety and health could be extended to the service and public sector as well. For example, Li et al. (2019) looked at a sample of 340 female nurses in public sector hospitals and found that 74 per cent of them had found themselves working during illness. Such “presenteeism” was observed to be significantly associated with health and productivity loss. Since most public hospitals have trade unions, these should play a more active role in promoting health and safety practices together with the hospital management.

► 2.5. HRM practices to enhance productivity at the firm level

Although human-centredness is very much in line with the traditional Chinese notion of being “people-oriented” (*yǐ rén wéi běn* 以人为本) and is increasingly emphasized in the rhetoric of the State and in management literature, existing research evidence and media reports suggest that some of the HRM practices adopted by firms, especially private businesses, are far from being human-centred or high-road (Cooke 2021). Instead, informalization (more than 60 per cent of workers are in informal employment), work intensification, long working hours and low remuneration are the norm, as can be seen from the reasons given for labour disputes and the distribution of such disputes across companies by the form of ownership in the most recent *China Labour Statistical Yearbook* (China, National Bureau of Statistics 2022). As the majority of Chinese workers are relatively low earners and are striving to improve living standards for themselves and their families, financial rewards (in the form of wages, social security, bonuses and other material incentives) are very much valued by white- and blue-collar workers alike and remain a strong performance motivator. This section discusses some of the HRM practices adopted by firms to improve employees’ workplace experience and well-being as they seek to enhance employee retention and performance. It also looks at the role of trade unions in facilitating the development of a harmonious labour–management relationship that has a positive effect on labour productivity. The examples in this section show that, while some of the HRM practices adopted by firms are human-oriented, they cannot necessarily be described as high-road but are, rather, interventions to cushion the negative effect on employees of work arrangements aimed at optimizing productivity or keeping the company operational.

2.5.1. Human-oriented HRM approach to enhancing productivity: Employee voice initiatives

Many workplace problems and employee grievances stem from poor management practices and the absence of effective communication (Cooke, Xie and Duan 2016). While not every employee request may be legitimate or can be resolved in a timely manner, listening to and investigating such requests and communicating with employees about the decision taken by management will help to improve labour–management relations and, ultimately, employee satisfaction, commitment and productivity. Below are two brief case studies illustrating how enterprise trade unions can adopt a “listen – communicate – improve” approach to addressing employees’ concerns. They both feature award-winning companies based in the Tianjin Economic-Technological Development Area (TEDA), some 45 km to the south-east of the coastal city of Tianjin, that have been actively implementing the “3-one” (三个一) approach at the enterprise level. This step-by-step approach involves (a) *listening* to employees’ opinions; (b) *communicating* with management officials; and (c) introducing *one measure* to improve labour relations. Promoted by the TEDA trade union, the “3-one” approach was designed to help enterprise trade unions in handling workplace issues and foster harmonious labour relations at the enterprise level by addressing employee concerns through employee voice mechanisms.

Case study 1: The “3-one” approach at Jinya Electronics (Tianjin)

Established in 1996, Jinya Electronics specializes in providing automation solutions for companies in various industries. The Jinya trade union in Tianjin adopted the “3-one” approach, in this case with four steps: collecting (listening) – resolving (communicating) – categorizing (improving) – filing (institutionalizing). This approach has helped the company to capture and respond to employee requests promptly, learn appropriate lessons and identify trends related to workplace issues.

Specifically, in 2017, the company collected employee requests through a telephone hotline, regular meetings with new and existing employees, and social media such as WeChat. The trade union committee held meetings twice a month to discuss routine issues as well as meetings twice a year for collective consultation (as mentioned in section 2.4, this is the term used in China instead of collective bargaining, reflecting the more collaborative and harmonious organizational relations promoted in Chinese culture). The union recognized that not all employee demands could be met but that it was important to listen, communicate and develop a systematic approach to addressing the concerns. After several rounds of listening, the union collected 146 separate requests and categorized them into three groups: (a) 125 requests falling under “employee support and services” (requests concerned with, for example, the quality of meals provided at the canteen, the timing of and pick-up locations for company transport to and from work); (b) 12 requests falling under “work environment”; and (c) 9 requests falling under “welfare and benefits”. The requests came from employees across the entire company, including managerial and non-managerial staff.

The trade union then worked with the company management and identified four main areas for improvement (see table 2.1). They tackled the problems one by one – for example, improving the quality and variety of canteen meals; organizing light physical exercise at lunchtime; providing afternoon tea for relaxation; and improving the work–life balance by allowing employees to finish work two hours earlier on the last Friday of every month. As a result, the employee satisfaction rate increased from 75.8 to 81.5 per cent, while the employee turnover rate was reduced from 5.1 to 3.7 per cent.

► **Table 2.1. Areas for improvement**

<p>Work environment and atmosphere</p> <ul style="list-style-type: none"> • Work environment • Career development • Management system • Internal and external cooperation • Communication and exchange channels 	<p>Support and services for employees</p> <ul style="list-style-type: none"> • Working conditions, safety and health protection • Work equipment • Accommodation and canteen • Transport to and from work (place and time)
<p>Motivation and development</p> <ul style="list-style-type: none"> • Recognition incentives • Coaching and mentoring • Discussion of work-related issues • Employee activities • Work achievements 	<p>Work-related issues</p> <ul style="list-style-type: none"> • Skills training • Pressure of work • Competence required for work • Opinions related to work-related matters • Communication and exchange

It is worth noting that providing subsidized meals is very common in Chinese workplaces, and that the quality of meals has often been a key source of employee (dis)satisfaction, as has the provision of company transport for commuting to work. Since employees in companies like Jinya Electronics are relatively young and the turnover rate is high, improving the support and services provided to employees is critical to increasing employee satisfaction and retention rates, as illustrated by this case study. However, the “3-one” approach is largely enacted in a top-down manner. What is missing is evidence of genuine employee empowerment as advocated in the literature on high-road HRM. It therefore remains unclear whether and how such empowerment could help to sustainably improve labour productivity in the Chinese context.

Case study 2: Managing sick leave entitlement in Novo Nordisk (Tianjin)

The insulin manufacturing plant established by Novo Nordisk in Tianjin in 1996 employs nearly 1,000 employees and has a policy of providing paid sick leave beyond the statutory requirement. Some employees exploited this policy to take sick leave when they were not actually ill, causing a rise in sick leave absence. About 30 per cent of the employees suggested in 2018 that the company should introduce an award for those who did not take sick leave to ensure fair treatment of all workers. This is an issue that has a bearing on employees' commitment and their physical and mental health. The trade union looked into the proposal together with managers from various departments (human resources, quality control, production, and occupational safety and health) and ultimately decided not to set up such an award. The main reason given was that there was a risk of sick employees coming to work in order to remain eligible for the award and thereby jeopardizing their own health and that of other employees. Meanwhile, the company tightened the relevant procedure: those employees found taking sick leave repeatedly when not actually ill would be given a warning, and if they persisted in doing so, their conduct would be taken into account when their employment contract came up for renewal. The managers interviewed for this case study emphasized the importance of ensuring that sick leave was used by those employees who genuinely needed it and not abused by others, so that the company's resources were not wasted.

2.5.2. Employee care initiatives during the COVID-19 pandemic

Caring (关爱) for employees is deeply embedded in Chinese culture. Although such paternalism carries negative connotations in the West, this is not so in China, where leaders are seen as having an obligation to look after their subordinates (Zhu and Delbridge 2022). Care for employees often extends to their families as well, and in many cases it comprises both material assistance to alleviate hardship and emotional support to help people overcome traumatic experiences. Box 2.1 below gives two examples of how companies applied employee assistance practices during the COVID-19-related lockdowns to stay operational on the one hand, and to mitigate the stress and anxiety experienced by employees and their families on the other. These examples illustrate the pragmatic Chinese approach to solving problems and, more generally, the country's paternalistic and collectivist culture. Although these employee assistance and care practices may be incomprehensible or even unacceptable from the Western perspective of industrial relations, they are not in fact unique to China. Similar practices can be found in other developing countries as well (see, for example, Cooke, Dickmann and Parry 2022 for a discussion of Indonesia).

► **Box 2.1. Employee care initiatives in China during the COVID-19 pandemic**

Example 1

Founded in 2017, Fosun Kite Biotechnology is a Shanghai-based company specializing in R&D and manufacture of immune cell therapy products. Its chimeric antigen receptor (CAR) T-cell therapy is the first such treatment for cancer to be approved in China. The urgency of treatment is very high and preparation of the CAR T-cell product requires a production line customized for each individual patient. There is no inventory and the production line cannot be stopped. On 16 March 2022, the company carried out a three-day drill ahead of an anticipated COVID-19-related lockdown. More than 50 employees were retained and managed at the production base, where they were isolated from the outside world. Various problems identified during the drill could be resolved. When the lockdown was subsequently imposed in Shanghai, dozens of employees stayed behind at the production base to maintain the manufacturing process. The company continuously provided those employees with essential goods from its headquarters in the city's Zhangjiang Hi-Tech Park, including tents, sleeping bags, quilts, moisture-proof pads and toiletries. A psychological counselling platform was also established to provide one-on-one coaching.

Example 2

When the SAIC Motor Passenger Vehicle Company's plant in Lingang, Shanghai, was locked down in March 2022, several employees became agitated because they wanted to go home. Moreover, some of them had health problems. The trade union and Chinese Communist Party members began actively communicating with the locked-down staff. In addition to buying medicines from the internet and delivering them promptly, the trade union also made telephone calls

to the families of the factory's more than 4,000 employees to identify those who were struggling with daily household activities and supplies. The trade union delivered fresh vegetables, eggs and other essential products to these families in a timely manner. The person in charge of business operations at the company believes that, in the face of a crisis, quick and accurate decision-making is key. The board of directors must give front-line managers full authority to make decisions, because they are on-site in the factory and know the actual situation. At such a time, problems should be solved one by one according to their priority. The company adopted remote cooperation, multilocation cooperation, multi-stakeholder cooperation and the pooling of resources to deal with each such problem.

The management of the company understood that employees were confronted with many uncertainties during the pandemic. Open communication and transparency were essential for collecting employees' opinions and suggestions to inform decision-making and solve problems quickly. This management approach and organizational culture were considered to be highly beneficial in calming employees down. The managers walked around the shop floor every day to collect information on employees' needs and provide solutions where possible. For example, in order to solve the problem of access to bathing facilities for so many people, the company purchased two boilers promptly. Thanks to the flexible and fast decision-making and an organizational culture based on open communication, the employees were able to understand the company's situation – in particular, the need to maintain production to keep the supply chain operational – and they worked together with management to weather the crisis.

Source: Qin (2022).

2.5.3. An optimization approach to productivity still prevails

While there is growing evidence that firms in China are paying attention to creating productive workplaces through the protection of health and safety, respect for workers' rights and improved labour-management relations (not least in response to institutional pressure and for reasons of competition), there remains a strong emphasis on optimization. This is evidenced by the continuing practice of non-standard employment and the increasing use of robots and artificial intelligence to boost productivity, a trend that has accelerated following the COVID-19 pandemic (Cooke 2021). Work intensification is also on the rise, as reflected in reports of overwork-related deaths. On the one hand, employees are laid off to reduce costs; on the other, those who remain in employment are forced to work at an even faster pace and for excessively long hours. Major corporations have been urged by the Government to reflect on their labour practices and to improve the treatment of their staff. Some have responded by setting up trade unions for their workers (Toh 2021).

In addition to reducing labour costs through automation and work intensification, organizations have also been paring down the workplace benefits available to employees. Informal interviews with senior managers revealed that, in order to combat the economic decline triggered by the COVID-19 crisis, both public and private sector organizations have been asked by the Government to cut costs and improve efficiency as their primary goal. Many organizations have resorted to reducing employee benefits both qualitatively and quantitatively as they pursue that goal. For example, in the case of subsidized canteen meals and snacks, they have begun providing lower-quality meat (chicken instead of lamb or beef) and cheaper snacks (such as pot noodles and bread instead of dried meat and cakes), and using frozen instead of fresh seafood. Some companies have reduced or even abolished top-up social security benefits for their employees (Meng 2022). It remains to be seen how the rolling back of welfare benefits will affect employees' motivation, job satisfaction and engagement, which will in turn affect their performance and retention.

In sum, despite the arguments made in recent HRM literature about the benefits of a human-centred approach to managing the workforce, evidence at the firm level in China suggests that a cost-oriented approach is still predominant. While some firms have begun implementing employee well-being practices to enhance workers' performance and retention rates, the principal goal is to maximize profits and competitiveness. The long-term well-being of employees and sustainable productivity do not yet feature prominently in the managerial mindset and HRM systems in China.

► 2.6. Conclusions

Labour productivity remains relatively low in China in relative and absolute terms, a situation exacerbated by significant disparities in the allocation of resources, including human capital, across regions, industries and the public and private sectors. China's economic success and productivity enhancement since 1978 have been driven largely by FDI, labour migration from agricultural to industrial employment, and a low-skill and low-wage employment system rather than through high-road HRM practices characterized by improved employment security, adequate social security coverage, extensive training and development, workplace equality and wage growth. As China seeks to upgrade its industries and the skills of its workforce, a human-centred approach is essential to increasing labour productivity more equitably.

At the macro level, this requires the State to improve its economic, education and healthcare policies with a view to reducing regional disparities in the allocation of resources, and also to adopt regulations aimed at strengthening labour standards and tackling labour market inequalities. Various policy initiatives are being launched to help enterprises to upgrade their technology and the skills of their employees. However, given that over 60 per cent of the workforce are engaged in informal employment and are not well protected by labour regulation, any institutional efforts to raise productivity are likely to achieve little on their own.

As a key industrial relations actor at the national strategic and local operational levels, trade unions have an indispensable role to play in this process. Assisting companies to raise productivity is an essential part of the functions of trade unions in China, notably through participation in management decisions, organizing skills training for the workforce, facilitating employee suggestion schemes to improve management and production processes, and providing welfare support for employees and their families. In the years to come, trade unions will need to ensure that workers' rights and interests are taken into account in decisions on automation. Unions can also play a positive role in giving employees a voice on various aspects of improving workplace relations and productivity.

Employment and HRM practices in China range from models based on low pay, low employee investment and tight control to those based on high work intensity but with extensive provision of employee welfare and significant employee involvement, where the aim is to strike a balance between workers' needs and the company's productivity. The human-centred HRM model in China is informed by the country's paternalistic and collectivist culture and a pragmatic approach to problem-solving. It is therefore difficult to find an example of a company that has adopted a full-blown high-road model. Instead, hybrid models that combine performance-oriented HRM practices and employee care and welfare arrangements can be found in many workplaces, where they have been adopted in response to external and internal situations. This is arguably a common feature of firms in most Asian economies. What employers can do is hone their managerial competencies, improve management efficiency and develop a better understanding of employees' needs and expectations so as to align HRM practices with these.

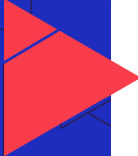
To conclude, the Government, trade unions and businesses in China need to make concerted efforts to promote human-centred HRM practices that can improve productivity at the individual, firm, industry and ultimately national levels. Several key questions should be addressed in future research to inform relevant policy and management decisions. These questions include the following: How can key institutional actors be induced to look at labour productivity with a greater emphasis on the human aspect so that labour productivity is enhanced sustainably? What kinds of HRM practices are most effective in raising employees' productivity, and under which conditions? How can HRM practices be designed to respond to demographic change and the expectations of employees? How can productivity-enhancing technologies be adopted in a way that minimizes the negative impacts on the workforce? What can the Government, trade unions and employers do to raise the level of human capital needed for the economic and social development of China so that its continued economic growth is underpinned by a skilled and productive workforce?

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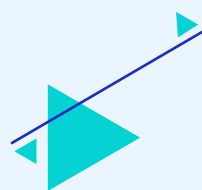
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3. The human-centred approach to increasing workplace productivity: Evidence from India

Ernesto Noronha and Premilla D'Cruz



► 3.1. Introduction

India's economy is currently the fifth largest in the world with a nominal GDP of US\$2.94 trillion, having overtaken the United Kingdom and France in 2019. Its GDP in purchasing power parity (PPP) terms is US\$10.51 trillion, exceeding that of Japan and Germany (World Population Review 2023a). Most of the country's economic growth did not take place until after 1991, when it loosened its trade restrictions (India, NCL 2002). However, because of its large population of 1.42 billion, India's GDP per capita stands at just US\$2,170 (for comparison, in the United States of America it is US\$62,794) (World Population Review 2023b). Nevertheless, owing to a declining dependency ratio, India entered the "demographic dividend" phase over two decades ago, that is, a situation where the working-age population is healthy, educated and gainfully employed. The working-age population (those aged 20–59 years) comprised 50.5 per cent of the overall population in 2011 and is projected to increase to about 60 per cent in 2041, while the share of older persons (those aged 60 years and above) will continue to rise steadily, nearly doubling from 8.6 per cent in 2011 to 16 per cent by 2041 (India, Ministry of Finance 2019).

Despite having a young population, India has long been plagued by low labour productivity. Measured by GDP per hour worked (GDP constant 2017 international US dollars at PPP), the labour productivity of India in 2021 was US\$8.47, compared with US\$13.53 for China, US\$74.15 for Singapore and US\$16.62 for its South Asian neighbour Sri Lanka (ILO, n.d.; see also figure 3.1). This is because low-productivity employment dominates the labour market in both agriculture and other informal sectors such as construction (Gupta and Gupta 2020; IHD 2014).

► Figure 3.1. Labour productivity per hour worked in India, 2000–18 (2017 US dollars PPP)



Source: Adapted from Statista (n.d.(a)).

There are several ways in which productivity can be improved, but here we focus on the human-centred approach. As emphasized in the ILO Centenary Declaration for the Future of Work, such an approach calls for investment in people's capabilities, in the institutions of work and in decent and sustainable work (ILO 2019a). The human-centred approach provides an opportunity to create decent work, facilitate the formalization of those in informal employment and reduce poverty. It also offers a means to boost labour productivity and creates incentives for businesses and financial markets to shift to a more sustainable and equitable form of value creation (ILO 2019b). The approach is based on the premise that a motivated and well-looked-after workforce directly engaged in production is key to economic growth (Mukherjee 2022). Workforce productivity can be unlocked by fostering cooperation and commitment and by honing the skills and attitudes of employees (India, NCL 2002). Therefore, enterprises that view people as prime assets and as the mainspring of their competitiveness focus on

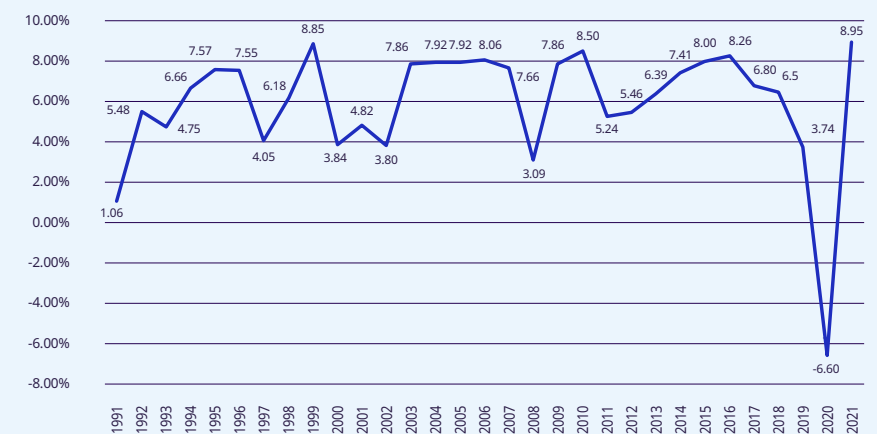
good industrial relations, skills development and retention of talent, rather than on reducing the cost of labour (Bain & Company 2013). Such enterprises have generally adopted high-performance work systems – that is, a set of HRM practices aimed at enhancing staff skills, commitment and productivity – because the way people are managed and treated in the workplace impacts on their productivity and efficiency (Punia and Garg 2013).

In the following sections we discuss the macro- and meso-level factors that are driving or dampening productivity in the Indian context.

► 3.2. Structural transformation and productivity

Some argue that the reason for India's low productivity is that its economy has been slow to undergo a structural transformation moving surplus labour from agriculture and other informal economic activities to higher value-added activities in the non-farm economy, particularly the manufacturing sector (Basole 2022). Although the share of agriculture in GDP has steadily declined, a substantial number of workers are still employed in that sector (Noronha and D'Cruz 2017, 2021a). Nevertheless, in 2018, the annual GDP growth rate for India at 6.5 per cent was higher than that of Singapore (3.7 per cent) (see figure 3.2 below; World Bank, n.d.).

► **Figure 3.2. Annual growth rate of India's gross domestic product, 1991–2021 (percentage)**



Source: Adapted from World Bank (n.d.).

In other words, economic growth in India is failing to deliver structural change because it relies on capital-intensive production to meet the demand of a small proportion of the population. Most workers can therefore find only informal and precarious employment (Basole 2022). The more recent trend of contractualization of work by formal enterprises has led to a greater presence of informal workers in formal settings (Abraham 2017; Noronha and D’Cruz 2021a, 2021b). The real expansion in employment has come in the form of self-employment, which means that workers are forced into low-productivity activities (Ghosh and Chandrasekhar 2007). Moreover, the hiring of informal workers is symptomatic of a “low road to growth” approach, where firms attempt to increase returns not through innovation or productivity growth but through cost-cutting. In fact, informal arrangements disincentivize employee training and skills enhancement, thereby hampering productivity (Abraham 2017). As for microenterprises, they typically operate in the informal sector and are characterized by lower productivity and wages (Verick 2018). Growth is therefore a necessary but not sufficient condition for structural change (Basole 2022). Indeed, Chandrasekhar and Ghosh (2014) argue that if workers are subjected to exploitative practices, the benefits of labour productivity accrue to those deriving rent, interest and profit incomes. While informal workers across all sectors are contributing to higher productivity, their absolute level of labour productivity is significantly lower than that of formal workers (Abraham 2017). Not surprisingly, the lower labour productivity of the informal sector in India is well documented (Abraham 2017; Aggarwal 2018). There are a number of reasons for this, including higher job motivation among formal workers and their greater access to capital and opportunities for training and skills upgrading. This highlights further the need for the creation of “good jobs” that are secure as well as productive to harness India’s demographic dividend and unlock the full productive potential of young people in the country (Abraham 2017).

► 3.3. The effect of labour laws and regulations

Indian employers have nevertheless often argued that informal workers are more efficient and productive than permanent employees (India, NCL 2002). In the view of employers, this is because the existing regulatory framework gives disproportionate power to workers and trade unions, leading to inflexibility, conflictive industrial relations and, consequently, lower industrial output (Badigannavar and Kelly 2012). In contrast, productivity in China was positively impacted by the Trade Union Act of 1992, which authorized unions at the enterprise level to conclude collective contracts with employers (see Chapter 2). One example often cited in the Indian context is how pay rises for employees of public sector enterprises are unrelated to increases in productivity. Organized workers have in the past been protected at the cost of workplace flexibility and efficiency (Bhattacharjee 2001). Employment security regulations in India required employers to obtain permission from the Government to retrench or lay off workers. As a result, larger establishments covered by these regulations tended to experience a decline in the demand for labour, while smaller, uncovered enterprises in the same industries did not (Fallon and Lucas 1991). These protective labour laws discouraged the hiring of unproven young workers and prevented the firing of less productive older workers, reducing plant-level total factor productivity¹ and increasing the average age of the workforce (Schwab 2020). Therefore, even the modest easing of regulations in some Indian states was sufficient to enable firms there to benefit from gains in total factor productivity. This easing was not simply limited to regulations under the Industrial Disputes Act of 1947. Rather, it encompassed a wider range of labour legislation, such as the Factories Act of 1948, the Shops and Commercial

¹ Total factor productivity refers to the entire bundle of inputs. The productivity of this bundle, which includes technology, processes and people, may be stimulated by an economic context that induces firms to increase their technical efficiency; use appropriate tools, equipment and methods; increase innovation; reduce their costs; improve managerial efficiency; improve capacity utilization; use raw materials efficiently; improve yields, systems and procedures; and eliminate unproductive practices and waste (India, NCL 2002).

Establishments Acts as promulgated in various states, and the Contract Labour (Regulation and Abolition) Act of 1970, and covered such areas as the role of inspectors, record-keeping, the filing of returns and union representation (Dougherty, Frisancho and Krishna 2014). Similarly, based on an examination of the Indian context, Sen (2018) draws the general conclusion that countries which disproportionately increase the bargaining power and rights of workers are likely to suffer a decline in productivity. Consequently, in response to employer demand, the Indian Parliament passed a new labour code on industrial relations in 2020 that allows for the retrenchment of staff without government permission in firms with up to 300 workers (previously only those with up to 100 workers could do so).

However, some argue that there is no convincing evidence to support the view that labour regulations have had a stifling effect on productivity. In practice, firms are usually able to bypass these regulations (Mitra 2016; Noronha and D’Cruz 2021b). Although the labour market regulations have not undergone significant changes, various state governments have allowed employers to adopt several measures to ensure flexibility, leading notably to rapid increases in contractual employment (Noronha and D’Cruz 2021b). Economic liberalization has put pressure on industrial relations institutions, forcing them to adapt. Many enterprises are resorting to cost-cutting by introducing voluntary retirement schemes and outsourcing arrangements (Noronha 1996). In addition, employers are pushing for joint consultations on how to improve productivity, and recent collective bargaining agreements have asserted management rights more forcefully than ever. Unions in India have become weaker and have acceded to concession bargaining across several industries (Noronha 2003). For instance, Das et al. (2013) point out that the efficiency improvements at the Bhilai steel plant did not occur until workers perceived their jobs to be threatened by liberalization. Labour market regulations cannot therefore be held responsible for the sluggish productivity growth in the manufacturing sector (Mitra 2016). In fact, with the decline in union militancy as reflected in the frequency of strikes falling dramatically in recent decades (Noronha and Beale 2011), the number of collective disputes coming up for conciliation has decreased while employers are increasingly using delaying tactics to wear out employees raising individual disputes and to force them to settle or withdraw (Noronha and D’Cruz 2019a). Rather than legislative reform, policies aimed at promoting competition by encouraging the entry of firms into the market can both benefit workers and boost economic growth (Maiti 2019). Moreover, regulations do not

necessarily leave firms worse off. For instance, evidence suggests that the profitability of firms is not reduced by increasing the minimum wage (Robertson et al. 2016). To remain competitive in the global market for services and manufacturing, India needs to generate quality employment that can significantly contribute to productivity growth and allow the country to move up the value chain (Arun 2022; Erumban et al. 2019; Mitra 2016). However, the labour codes on wages, social security, industrial relations and occupational safety, health and working conditions passed by Parliament in 2019–20 arguably make that task more difficult by further exacerbating informality (Noronha and D’Cruz 2021b).

► 3.4. Human capital and productivity

It is important to understand the linkages between employability, quality employment and productivity (Mitra 2016). Achieving growth-enhancing structural transformation – that is, making it easier for workers and enterprises to move out of declining or low-productivity activities and sectors – requires appropriate policies such as improving access to quality and relevant training that facilitates the reallocation of human resources from low- to high-productivity sectors (Erumban et al. 2019; Sanghi and Srija 2015).

However, the challenge of persistent skills gaps needs to be addressed. Barely 2 per cent of Indian workers formally acquire skills, compared with 26 per cent in China, 52 per cent in the United States, 68 per cent in the United Kingdom, 75 per cent in Germany, 80 per cent in Japan and 96 per cent in the Republic of Korea (Si 2022; Maitra and Maitra 2018). India is among the countries where it is hardest for employers to fill job positions, while at the same time those graduating from industrial training institutes find it difficult to secure immediate employment (Khare 2016; Kumar 2016). The country is thus in a paradoxical situation where the number of educated unemployed seems to keep increasing while employers across various sectors lament the lack of skilled human resources. Many jobseekers have a university-level education – there were about 38.5 million students enrolled in higher education in 2020 (see figure 3.3) – but they require a significant amount of further training to become truly “job-ready” (Noronha and D’Cruz 2021a; RoyChowdhury and Upadhyaya 2020).

► **Figure 3.3. Number of students enrolled in higher education in India, by sex, 2016–20 (millions)**

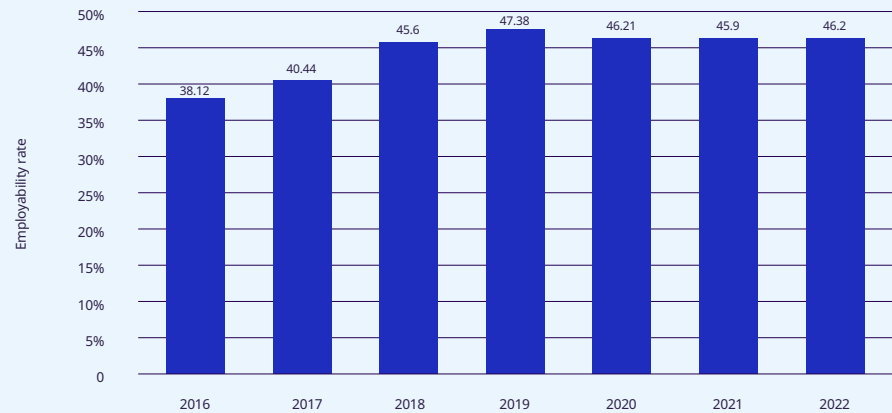


FY = financial year.

Source: Adapted from Statista (n.d.(b)).

For instance, in 2022, only about 46 per cent of young Indians were employable (see figure 3.4), those with a bachelor’s degree in engineering or technology having the highest employability rate at over 55 per cent.

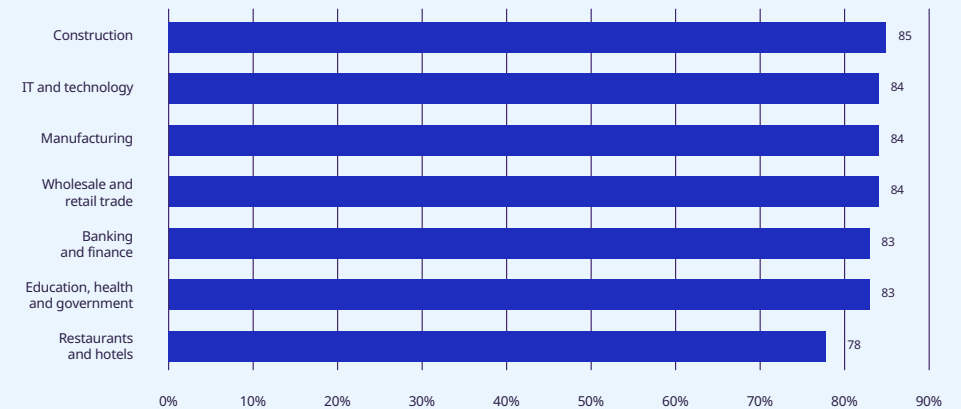
► Figure 3.4. Share of employable young people in India, 2016–22 (percentage)



Source: Adapted from Statista (n.d.(c)).

Significantly, 83 per cent of businesses in industries across India indicated that they faced talent shortages in 2022, with the highest share observed in the construction industry, where 85 per cent of businesses reported a shortage of skilled labour (figure 3.5).

► Figure 3.5. Share of businesses in India reporting a talent shortage, by industry, 2022 (percentage)



Source: Adapted from Statista (n.d.(d)).

A lack of training capacity is one of the main reasons why only a comparatively small proportion of Indian manufacturing workers are trained (Agrawal, Rao and Venkatesh 2016). Teaching staff at higher education institutions are inadequately prepared to introduce effective job-oriented courses that establish meaningful linkages between industry and academia (Khare 2016). Moreover, the outdated curriculum of the Apprenticeship Training Scheme from the 1960s is still being used (Pilz 2016). The low uptake of vocational training has to do not only with limited awareness of its availability but also with the fact that it is perceived to be of low quality by both students and parents (Aggarwal, Kapur and Tognatta 2012).

► **Box 3.1. Bridging the skills gap in India**

- The National Skill Development Corporation should improve the linkages between industry, academic institutions and private training agencies.
- The curriculum of the Apprenticeship Training Scheme needs to be revised.
- A compulsory practical component should be embedded in technical and vocational education and training, where industry could play an active role.
- Industry should be required to form partnerships with academic institutions.
- Academic institutions should align their curricula with industry requirements.
- Businesses should organize seminars and training sessions for teaching staff to give them an industry perspective.
- Businesses can learn from peer experiences and open their own academies.
- Non-governmental organizations can target unskilled informal workers and help them to enter the formal economy through training.

There is a mismatch between the skills requirements of employers and the skills base of jobseekers (Majumdar 2016). Bridging that gap through the actions summarized in box 3.1 would help young people to move into high-productivity sectors (Gupta and Gupta 2020). However, skilling the large and growing youth population starting from an exceedingly small base is a major challenge for India (Khare 2016). Technical and vocational education and training (TVET) infrastructure will have to be scaled up to meet the existing and emerging demands of industry (Gupta and Gupta 2020). A compulsory practical component would need to be embedded in TVET courses, with industry associations, sectoral councils and companies playing an active role in its delivery (Majumdar 2016). Accordingly, Sanghi and Srija (2015) argue that leading firms should take the initiative to achieve economies of scale in skills development. The linking of skills and productivity would not only be a boon to enterprises and the economy in general but would also allow marginalized groups in society to reap the benefits of economic growth. Industry associations such as the Confederation of Indian Industry

could partner with existing industrial training institutes to develop the infrastructure for a better learning environment (Ramasamy and Mani 2016). In that regard, some companies have formed a partnership with academic institutions to work on specific initiatives, such as faculty development, internships for students and the revision of curricula. For instance, Infosys works with educational institutions to align their curricula with industry requirements. The company organizes seminars and training sessions for the teaching staff to give them an industry perspective, enabling them to train students accordingly (Agrawal, Rao and Venkatesh 2016; Mitra 2016). Most firms in the information technology sector have launched in-house staff development programmes (Noronha and D’Cruz 2021a). For instance, Wipro established a dedicated training institution, the Wipro Academy of Software Excellence, to produce its own software professionals. It offers a four-year sandwiched postgraduate programme in collaboration with the Birla Institute of Technology and Science in Pilani. This scheme provides university teachers with an opportunity to work in software and information technology companies for about three months a year so that they can keep abreast of developments in the industry (Agrawal, Rao and Venkatesh 2016). In addition, the National Skill Development Corporation set up in 2008 can play a key role in improving the linkages between industry, academia and private training agencies to help India to increase its global competitiveness and enhance the productivity of its workforce (Agrawal, Rao and Venkatesh 2016). Similarly, non-governmental organizations (NGOs) that work with socio-economically vulnerable individuals should seek to make these part of the skilled workforce, thereby enabling them to escape poverty. By targeting unskilled workers in the informal economy and providing them with training, NGOs can help to bring them into the formal economy (Gengaiyah 2016). For instance, the work among marginalized communities performed by Janvikas, a training and support organization, is of particular significance (see box 3.2).

► **Box 3.2. The Non-Traditional Livelihoods Network**

The Non-Traditional Livelihoods Network is a collaboration of 34 organizations and individuals seeking to increase women's participation in the workforce, especially in occupations and trades that have traditionally been closed to them. Established in 2016, the Network aims to disrupt the gendered division of labour that forces women to occupy only certain "feminized" spaces, namely low-skilled and low-paid jobs. More generally, it aims to end occupational segregation based on gender, caste and class that limits the scope of economic activities available to the marginalized. The Network believes that one of the ways to break the vicious circle of denial of women's rights is to create training and development opportunities for resource-poor and marginalized women in non-traditional skills that are remunerative, such as driving, carpentry and plumbing, thereby increasing their access to decent jobs. Another way is to advocate the creation of "ecosystems of change" at home, in workspaces and in the market. The Network operates at the intersection of gender-livelihood skills and views its task as being to mainstream non-traditional occupations for women in the broader debate and action around women's work and labour participation. It aims to challenge the beliefs, practices and policies that contribute to the exclusion of women from traditionally male-dominated livelihoods as a result of gender-biased social norms and lack of knowledge and skills. As part of the Network, Janvikas provides livelihoods with dignity for resource-poor women living in the slums of Ahmedabad through the skills-based programme DriverBen, which allows them to acquire driving skills. A total of 412 women have been enrolled in the programme so far, of whom 154 have obtained a permanent licence; many are now in remunerative employment.

Sources: Website of Janvikas, <https://www.janvikas.in/copy-of-ulive>; website of the Non-Traditional Livelihoods Network, <https://ntlnetwork.in/about-us/>.

► **3.5. Human resources management and productivity**

Regulation may in fact encourage firms to experiment with alternative HRM policies that increase profits through improvements in firm performance (Robertson et al. 2016). The impetus for this in India has come from liberalization, which has compelled managers to take the "human factor" in organizations into account to survive and compete (Kundu and Gahlawat 2018). Despite misgivings as to whether Western HRM tools such as high-performance work systems would be effective in India – given the country's complex cultural characteristics such as high power distance, moderate to high masculinity, and a tradition of collectivism, which prioritized caste, networks and political connections over performance (Kundu, Kumar and Gahlawat 2019; Kundu and Gahlawat 2018) – Indian leaders are increasingly committed to the fostering of human capital (Rai 2012). According to the universalistic theory of HRM, there is a distinctive set of management practices that can be adopted by any organization, irrespective of setting, to improve organizational performance (Muduli, Verma and Datta 2016). However, the mere adoption of Western HRM systems as an act of tokenism is not sufficient: Indian firms need to assess the utility of these systems in advancing their strategic goals (Kundu, Mor and Gahlawat 2021). Björkman and Budhwar (2007) argue that the local adaptation of HRM practices is positively related to the performance of foreign firms operating in India, which lends support to the notion of "crossvergence", namely that change involves cultural continuity rather than a complete break with past work systems (D'Cruz and Noronha 2012). Recent evidence suggests, furthermore, that the misgivings about the adoption of Western HRM systems should be put to rest as Indian employees do prefer low power distance and greater participation in decision-making (Noronha and Magala 2017).

Many organizations in India seek to encourage belongingness, participation, cooperation and team spirit among their employees (Rai 2012). They have started relying on HRM systems that facilitate organizational learning, promote empowerment and enhance employee adaptability (Kundu and Gahlawat, 2018) – in other words, on high-performance work systems, which can influence the degree of organizational and individual performance. Employees who are more

committed and more satisfied with their jobs strive to improve their performance and are less frequently absent from work (Garg and Punia 2017). Senior managers across organizations in India are increasingly treating HRM as a strategic function that has to do with establishing a competitive advantage and fostering higher work commitment, productivity and growth (Rai 2012). For instance, Tata Steel revamped its HRM practices to increase profits and growth across the organization by creating work teams and giving them autonomy and accountability in setting their own performance targets and ensuring that these are attained. In addition, promotion ceased to be seniority-based and became contingent on performance (Rai 2012).

Improved HRM policies can reduce costs and increase the productivity and profitability of firms (Manoj 2016; Robertson et al. 2016; Som 2012). Firms can achieve better financial returns by making sure that they recruit the most suitable individuals, training them effectively and rewarding them for doing their job well (Darwish et al. 2020). It has been suggested that indices based on employee productivity could be used to assess a firm's performance vis-à-vis its competitors (Afshan, Chakrabarti and Balaji 2014). Indeed, the four HRM practices of performance-based compensation, information-sharing, selection and promotion based on merit have been found to be strongly correlated with firm performance (Singh 2003). Indian employees are welcoming the efforts to empower them and are performing better at their jobs (Kundu, Kumar and Gahlawat 2019). When employees appreciate the quality of HRM actions directed at them, such as performance-based rewards and compensation, extensive training and empowerment, they feel a sense of obligation towards their employer and reciprocate by investing more of their personal energies in their work roles (Kataria, Garg and Rastogi 2019). Firm performance therefore depends on intrinsic rewards (both psychological rewards and opportunities to grow with the job – Darwish et al. 2020), direct rewards such as incentive pay and indirect rewards such as job enrichment and job-sharing (Punia and Garg 2013). Workers' wages have been found to enhance labour productivity across firms of various sizes (Bhattacharya and Rath 2020) – something that was well understood at Elgi Equipments (see box 3.3). Similarly, a study looking at the trialling of modern management practices by large Indian textile firms, including piece-rate pay for workers and performance-based pay for managers, found that these practices had considerable effects on productivity and profitability (Bloom et al. 2013). Workers and unions are clearly interested in productivity because wages depend on an organization's efficiency (Ahlawat and Renu 2018; India, NCL 2002).

► **Box 3.3. Employee compensation at Elgi Equipments**

Elgi Equipments, a manufacturer of air compressors based in the city of Coimbatore, delivers world-class goods and services by investing heavily in cutting-edge technology, innovation, downstream capabilities and, most importantly, its staff. As a result, there is a successful confluence of the company's philosophy and objectives with the life goals of its employees. Productivity improvement is not achieved by the white-collar employees alone: an equal contribution is made by the shop-floor workers. Elgi has assured its employees that their cost of living will be protected, no matter what the performance of the company. "If I am going to build a business strategy based on cheap labour, then I am shooting myself in my foot," said Dr Jairam Varadaraj, the company's Managing Director, who added: "I do not want to keep myself cheap, so why should I keep my colleagues cheap? Our goal is to make Indians expensive and still be competitive."

The existing employee compensation system was introduced in 1996, when Elgi's turnover was 2.5 billion Indian rupees (today it is close to 30 billion rupees). The cost of living is calculated using Elgi's internal basket, which comprises 370 items of consumption including haircuts, education fees, Wi-Fi access, laptops, vacation, consumer durables and provisions. A team from the company visits specified shops in Coimbatore, where most of its employees live, to determine the market prices of these items and the salaries are adjusted accordingly every year. The managers revise the consumption basket every five years based on employees' aspirations for a higher standard of living, but also ensuring that it is affordable for the company. The compensation matrix is designed taking the entire life span of employees into consideration, starting from their training period at the Elgi Vocational Training School until retirement. The various needs and expectations are co-created by the employees and the company. Elgi has set a target for employee costs of 12.7 per cent of annual sales turnover, which is higher than at other Indian companies of comparable size in the same sector.

The management at Elgi believes that higher wages, based on a logically designed system, contribute to enhanced participation by employees in productivity-related activities. Such a compensation system brings about a sense of personal commitment among employees and makes them feel valued within the organization.

The way that people are managed and treated at the workplace has an impact on their productivity and efficiency (Punia and Garg 2013). Productive organizations are those where employees have high job satisfaction, work well in teams and are highly motivated (George, Suppramaniam and Arumugam 2021). An organization's ability to facilitate open communication between superiors and subordinates and to enable the free exchange of information within departments improves through participatory HRM practices (Gahlawat and Kundu 2019). There is a positive association between a participative management style and employees' productivity and job satisfaction (Jain and Premkumar 2010). Workers' participation in decision-making through quality circles, employee suggestion schemes and shop-floor improvement groups contribute to firm-level productivity (India, NCL 2002). Participatory HRM in the form of self-managed teams and flexible work arrangements – that is, where organizations offer employees high flexibility and decision-making authority in drawing up plans for achieving specific goals – has a positive effect on the organizational climate (Gahlawat and Kundu 2019). One area of HRM that has been linked to productivity is the relationship between employees and supervisors (Robertson et al. 2016). Productivity-oriented team leaders recognize that the open-minded discussion of opposing views is quite useful for solving problems and getting things done. This helps the teams that they supervise to be effective and productive. The value of such “constructive controversy” stands in apparent contradiction to the traditional view that Indians rely on conflict avoidance because of their collectivist culture (Bhatnagar and Tjosvold 2012). Managers and supervisors who empower their employees and use transformational leadership can help to ensure that staff are less likely to want to quit (Gill et al. 2011). However, the role of social media in both diminishing and enhancing employee productivity has often been debated in IT companies. While the unregulated use of social media in the workplace for non-work-related purposes has certainly led to serious problems in maintaining productivity, it has been argued that employers can harness social media to their advantage and ensure that access to such platforms results in greater productivity. Some organizations have accordingly developed a social media policy in consultation with their employees, which may include assigning work in the form of “goals” that need to be accomplished within a certain period of time (Ahmad, Hussain and Ahmad 2022; Bharucha 2022).

Nonetheless, improvements in working conditions also play a significant role in augmenting value addition in terms of increased productivity and firm profitability (Mukherjee 2022; Robertson et al. 2016). Policies that induce firms to provide better working conditions improve worker performance. For instance, shorter hours are associated with higher productivity. Similarly, flexible schedules not only enhance productivity but also improve workers' health. A firm that offers employees a flexible schedule finds it easier to recruit new workers and reduce the attrition of existing staff (Robertson et al. 2016). Employees must be satisfied with physical working conditions at the company if they are to perform effectively and efficiently. Conversely, dissatisfaction with working conditions, notably those relating to health and safety and work hygiene, has an adverse effect on employees' work-related quality of life (Vijay and Sekar 2013). For instance, construction workers are often exposed to severe temperatures during their work that may potentially impair their work efficiency and productivity. Heat stress at work has physiological and psychological effects on workers and can lead to a reduction in work enthusiasm and productivity, along with an increased accident rate (Chinnadurai et al. 2016). In contrast, information technology and business process outsourcing organizations occupy ultra-modern buildings, offering state-of-the-art infrastructure and facilities. Most employer organizations in that sector seek to provide physical work environments meeting standards that resemble those in the West. The facilities provided on the office premises include individual lockers, cafeterias with wide-ranging menus at reasonable prices, recreation and de-stress rooms with bean bags, computers with internet access, music systems, televisions, indoor games (such as carrom boards, table tennis, chess and billiards) and reading spaces. On-site childcare and health facilities comparable to those of their strongest competitors in the United States and elsewhere are also provided (Noronha and D'Cruz 2016). When well-being is organization-driven, employees are motivated to contribute to the organization. Workplace well-being practices tend to reduce the adverse effects of high-performance work systems and work intensification (Chillakuri and Vanka 2021).

Like motivation-enhancing HRM practices, ability-enhancing practices have both direct and indirect effects on firm performance (Kundu and Gahlawat 2018). For instance, in addition to eliminating skills mismatches (Mitra 2016), the training provided to employees, workers and managers has a significant impact on productivity (Davar and Parti 2013; Singh

and Mohanty 2012). By improving employees' skills, training is one of the most fruitful methods for enhancing productivity. Supervisors who support training have a positive influence on employees' confidence to learn new skills. Recent research has shown that employees who embark on their training with higher levels of motivation learn more, perform better and are more likely to complete the training than their less motivated counterparts (Muduli and McLean 2021). Not surprisingly, training activities in call centres receive at least 25 per cent of the organization's budget (Budhwar et al. 2006) and comprise both generic training (notably cultural and linguistic training, communication skills and emotional labour skills) and process-specific modules (Noronha and D'Cruz 2009). However, for training to be effective in improving organizational performance, it must be aligned with a suitable HRM culture (Muduli 2015). During the COVID-19 pandemic, training, development and coaching were found to increase employees' resilience and ability to cope with the new challenges, contributing to their well-being at a difficult time (Agarwal 2021). Moreover, the use of HRM practices that went beyond the conventional boundaries of the workplace and showed concern for employees in their personal lives helped to enhance their job performance. Such practices made it easier to manage employees by reducing the stress and anxiety associated with the uncertainty of that period (Agarwal 2021). After lockdowns had been lifted, some organizations allowed employees to continue working from home, depending on their specific needs in terms of balancing their personal and professional lives (Chillakuri and Vanka 2021; D'Cruz and Noronha, forthcoming).

► 3.6. Global value chains and productivity

According to Gupta (2018), for firms to be able to contribute to the economic and social upgrading of global value chains, they need to have higher levels of labour productivity and be engaged in more skill-intensive activities. Therefore, firms should focus on human asset development, rather than on the management of labour costs, and work together with their stakeholders to lay the foundations for sustained growth and competitiveness (Bain & Company 2013). Managers can save time as there is no need to repeatedly resolve similar or routine issues. Clusters of lead firms should take the initiative to ensure the move to a high-road model (Arnold 2010). In a study comparing two Indian garment factories, Lake (2007) found that the one which had a good HRM system and offered opportunities for skills development, promotion and employee participation had higher retention rates – and consequently better product quality and higher productivity – than the one which viewed its workforce as a variable cost to be minimized, even though both factories were drawing from the same pool of skilled workers and paying the same basic wage.

However, firms operating on the edge of profitability in developing countries may not yet be aware of the long-term benefits of HRM policies that improve productivity or may simply follow local norms, rather than conducting an independent cost–benefit analysis of the various policies. Sharing information and providing incentives for trying out HRM policies could therefore help to improve working conditions in developing countries (Robertson et al. 2016).

While organizations continuously look for new ways to increase efficiency and productivity, they must also respond to calls from governments, pressure groups and consumers to adopt more responsible and sustainable practices across their supply chains. Some large corporations have demonstrated their commitment to driving change by introducing an auditing regime for suppliers. In this way, they have had some success in bringing about improvements at first-tier supplier companies, over which they have a high degree of leverage. It is now widely recognized, though, that audits alone cannot effectuate long-term change and that they can leave brands exposed to reputational damage despite their best efforts. Initiatives have therefore been launched to promote social values in supply chains, transcending the imperative of mere economic efficiency. An example is

the Social Compact, a multi-stakeholder initiative that seeks to catalyse an ethical transformation of Indian businesses to ensure greater dignity and equity for vulnerable workers and their families (see box 3.4; Noronha and D’Cruz 2021a; Noronha et al. 2022). Under the Social Compact, responsibility for the business chain is borne by the principal employer, who has the means to ensure consistent worker practices throughout the chain and is keen to establish an excellent reputation in local and global markets.

► Box 3.4. The Social Compact initiative

The Social Compact brings together companies, non-profit organizations and experts to pursue greater dignity and equity for industry-employed informal workers in India. The initiative was launched in 2020, immediately after the first COVID-19-related lockdown was announced. Drawing on information gathered by NGO partners on the ground, six key human-centric outcomes were identified – namely living wages, gender equality, safety against accidents, health and social security, access to entitlements, and participation in the future of work – that companies could help to advance so as to enable a more dignified life for workers, especially those working informally. The Social Compact encourages companies to reflect on their practices in these areas and offers valuable recommendations to address systemic gaps, improve business resilience and profitability, and secure a competitive advantage in a fast-growing field of domestic and international investors and customers that prioritize environmental, social and governance principles. It is an expanding community of practice with more than 300 participants, including over 60 principal and supply chain companies, involved in the journey towards more inclusive workplace practices. The initiative has already benefited over 53,000 vulnerable workers in India.

Source: Social Compact team. See also Noronha et al. (2022).

Similarly, as part of its Sustaining Competitive and Responsible Enterprises (SCORE) programme aimed at improving productivity, employee–manager cooperation and working conditions in small and medium-sized enterprises (SMEs), the ILO offers the SCORE Training package for suppliers, which is designed to bring about lasting improvements by highlighting the link between productivity and workplace practices (see box 3.5). Drawing on international best practices in the manufacturing and service sectors, the training helps SMEs to participate in global supply chains by focusing on the development of cooperative working relations, resulting in shared benefits for employers and employees alike.

► Box 3.5. How SCORE Training improved worker–employer relationships and productivity at J.P. Enterprises

Established in 2004 in the city of Nashik, J.P. Enterprises is a producer of plastic moulding and auto electrical parts. Before the SCORE Training programme was implemented, the company was beset by problems of communication between workers and their supervisors. A common grievance was that workers did not feel valued and involved in decisions, as instructions were simply handed down to them. Hierarchical relationships stifled cooperation between senior management and staff. Work on the shop floor used to take place haphazardly without proper planning, resulting in miscommunication and conflicts among both workers and their supervisors. However, ever since the company completed the first SCORE Training module in July 2017, there has been impressive progress in developing stronger worker–employee relationships and productivity. There is now a sense of collective ownership among workers and employers, which has boosted productivity, innovation, well-being and teamwork. As part of the SCORE Training, an Enterprise Improvement Team comprising both senior managers and rank-and-file employees was formed. It was the first time that management and staff came together to learn about each other’s challenges and find common solutions. The focus was on breaking with the top–down approach of the past and ensuring that decision-making became more participatory

and transparent. Many employees found this process empowering. The Enterprise Improvement Team now meets weekly, with a fifty-fifty representation of management and staff. A daily ten-minute stock-taking meeting on the shop floor was introduced. The SCORE Training emphasizes the collective ownership of workers and employers for the work that they do by promoting respect and trust, overcoming hierarchies and sharing knowledge so as to boost productivity, quality, innovation, well-being and teamwork. As a result, there has been a visible upswing in workers' morale. Employees are now eager to contribute, absenteeism has fallen, and many take pride in finding solutions to challenging situations. Time management issues, lack of planning and coordination problems all gradually disappeared and, on the whole, there has been a productivity hike of between 15 and 20 per cent.

Source: ILO (2017a).

The primary goal of the SCORE Training programme is for SMEs worldwide to effectively implement five core modules covering workplace cooperation, quality management, clean production, management of human resources, and occupational health and safety. SCORE Training reduces costs, waste and environmental impact; upgrades the working environment; increases process systemization; promotes the use of measurement to drive continuous improvement; strengthens communication; and activates joint problem-solving (ILO 2020). It is built on the assumption that productivity can be upgraded through better people management, better organization of work processes, and workplace practices guided by the principles enshrined in international labour standards. In the case of Stanfab Apparels (see box 3.6), SCORE Training helped to reduce employee turnover and to increase a sense of inclusion within the workforce. More than 100 pilot SMEs in India, with over 7,600 employees in total, have been trained under the SCORE programme since the first phase was launched in 2011. SCORE Training has improved productivity by up to 50 per cent in participating SMEs and boasts a 91 per cent satisfaction rate. This is an important achievement because India is home to more than 36 million micro, small and medium-sized enterprises (ILO 2016).

► **Box 3.6. How SCORE Training helped Stanfab Apparels to integrate women migrant workers, leading to improved effectiveness**

Established in Chennai in 1990, Stanfab Apparels manufactures a range of clothing from outerwear to swimsuits for retailers such as s.Oliver and Primark. In July 2015, the company joined the SCORE Training programme and successively completed the five core modules. A constant challenge for the company has been a consistently high staff turnover rate, which hovered around 28 per cent in 2017. Managing such rapid turnover was time-consuming and resulted in a loss of productivity. During the implementation of SCORE Training Module 4, a large number of women migrant workers were hired to work in operations, mostly in sewing. The newly established Enterprise Improvement Team worked closely with senior management to identify various key concerns that needed to be addressed to tackle high staff turnover, notably (a) lack of adequate skills to meet export quality standards; (b) personal challenges faced by new workers, such as linguistic barriers, culture shock, finding good and safe accommodation, choice of food and homesickness; (c) developing a cooperative and inclusive work environment for both local and migrant workers from various backgrounds; and (d) monitoring and improving the skills of new workers and providing much-needed assistance and motivation for first-time migrants. Accordingly, a "Buddy" programme was launched to ensure that new workers felt included and appreciated, enabling them to adapt more quickly to the new environment. Accommodation was provided for new migrant workers and formal induction training was introduced to prepare workers for their role. In addition, the data management system for monitoring labour turnover was enhanced. After the SCORE Training, the company was able to create a more positive and welcoming environment for female migrant workers, resulting in a smoother adaptation. These women have been encouraged to lead key projects and to become involved in the Enterprise Improvement Team and various committees such as the Management Review Committee.

Source: ILO (2017b).

► 3.7. Teleworking and productivity

There is considerable controversy over productivity in situations where employees work from home. The shift to working from home (WFH) during the COVID-19 pandemic caused an immediate and lasting change in work patterns and productivity (Gibbs, Mengel and Siemroth 2021). Infosys founder Narayana Murthy has argued that WFH arrangements lowered the productivity of employees and that they should be expected to work from the office again (Dataquest India 2022). One reason for this is that, while companies have been able to hold experienced employees accountable, working productively from home may be more difficult for employees who are less experienced and/or are performing jobs that involve a significant degree of collaboration and coordination (Gibbs, Mengel and Siemroth 2021; D’Cruz and Noronha, forthcoming). Some companies had difficulties in training interns and freshers who did not understand the organization’s culture or their job responsibilities, resulting in lower productivity (Borse, Mishra and Loudon 2022; D’Cruz and Noronha, forthcoming).

Employees were only able to maintain similar levels of output when teleworking by working longer hours. This was because employees had less “focus time” (uninterrupted time to perform tasks), the net effect being a drop in productivity (Gibbs, Mengel and Siemroth 2021). Teleworking employees often take fewer breaks, skip their meals and work longer hours, partly owing to the blurred boundaries between work and personal life and the lack of a distinct end point to the workday (Borse, Mishra and Loudon 2022; D’Cruz and Noronha, forthcoming). Teleworkers in India are required to be available at any time of the day, log on for a specific number of hours, complete a given amount of work every day and communicate regularly with the office via email, with weekly follow-up meetings. Overall, the main concern of organizations implementing WFH arrangements is control (Noronha and D’Cruz 2019b). The attempt to strike a balance between work and family often leaves the participants with a sense of strain, offset by gains in terms of reassurance about family well-being and fulfilment of teleworkers’ desire to work (Noronha and D’Cruz 2008a). However, there are also after-hours telecommuters (“moonlighters”) who display a sense

of focus and work very hard while absorbing the strain of multiple demands and roles assigned to them in order to meet financial needs and fulfil their desire for upward socio-economic mobility (Noronha and D’Cruz 2008b). During the COVID-19 pandemic, the negative effect of teleworking on employee productivity was more pronounced for women than men because of the domestic duties they had to attend to on top of regular working hours (Farooq and Sultana 2022). Moreover, productivity tends to be lower for teleworkers with children at home – a situation that was exacerbated by the closing of schools during the pandemic (Gibbs, Mengel and Siemroth 2021).

Even those teleworkers without children at home suffered a decline in productivity during the pandemic. They found themselves with less focus time, more time spent at large meetings and reduced one-to-one communications, all of which had an impact on working relationships, opportunities for coaching, development and building professional networks, and on corporate culture in general. This suggests that the costs of communication, collaboration and coordination are higher when work is done virtually (Farooq and Sultana 2022; Gibbs, Mengel and Siemroth 2021). Moreover, employees’ lack of visibility in the team means that remote work is often perceived as a drag on career growth (Borse, Mishra and Loudon 2022). Among the factors that influence the productivity of remotely working employees are job motivation, access to the resources needed to get work done, the amount of communication from managers and benefits received from the organization (Borse, Mishra and Loudon 2022).

Productivity should improve as a firm refines its implementation of WFH arrangements and moves to a blended model that also involves working from the office. Under such a hybrid model, employees can enjoy greater flexibility and lower commute times (Gibbs, Mengel and Siemroth 2021). For instance, management at Tata Consultancy Services are learning to make remote employees feel central to the organization’s success to keep them productive, contented and motivated. The company recently announced a “25x25” operating model vision, which means that by 2025, up to 25 per cent of its workforce will be working remotely at any given time (Subramaniam 2021). As pointed out by Gibbs, Mengel and Siemroth (2021), “[f]irms will have to develop tools, training and policies to give greater emphasis to interpersonal interactions during WFO [working from the office], improve the effectiveness of virtual communication, and train supervisors and employees to schedule work time at home more efficiently.”

► 3.8. Conclusions

The prevalent explanation for low productivity in India is the inability of its economy to shift from agriculture to manufacturing despite high growth rates. Because of the lack of structural change, there is a large informal economy that has low productivity levels compared with the formal sector. The difference in productivity levels between the two sectors is due to formal workers having greater job motivation and more opportunities for job training and skills upgrading. This highlights the need to create “decent jobs” to ensure higher productivity. Nevertheless, employers have been demanding greater flexibility in the terms and conditions of employment, leading to informalization of some parts of the formal workforce. Regulation encourages companies to experiment with alternative HRM policies that can help to improve productivity. Effective HRM practices not only motivate employees to raise their own performance but also benefit organizations in terms of generating higher profits, attracting talent, reducing employee turnover and providing a safer work environment. In addition, productivity can be enhanced by skills development. However, the persistent mismatch in India between the skills required by employers and the skills base of jobseekers is a major challenge. Firms should invest in human asset development and join forces with relevant stakeholders to improve the country’s TVET infrastructure with a view to achieving sustained economic growth and boosting competitiveness. Moreover, initiatives such as the Social Compact and the ILO’s SCORE programme, with their emphasis on improving working conditions and processes, can make a significant contribution to productivity enhancement in India.

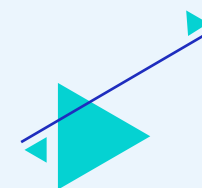
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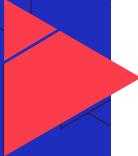
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4.
**Towards a human-
centred approach to
increasing workplace
productivity:
The case of Japan**

Katsuyuki Kubo

► 4.1. Introduction

Japan is a country with a population of 126 million. In 2021, its GDP was 541.6 trillion Japanese yen (around US\$4.9 trillion), the third largest in the world after the United States of America and China. The Japanese economy displays a number of distinctive features. After the asset price bubble burst in the early 1990s, the economy stagnated for 30 years and the GDP in 2021 did not differ much from that reported in 1994, namely 506 trillion yen (US\$4.6 trillion). In other words, GDP growth over that period was negligible. However, despite the stalled economy, the unemployment rate has been stable, decreasing from 4.8 per cent in the first quarter of 2000 to 2.6 per cent in the second quarter of 2022. Prices have also been stable during that period, with the consumer price index varying narrowly from 95.8 in 2002 to 99.8 in 2021. The Bank of Japan has adopted a loose monetary policy through zero interest rates and quantitative easing in an effort to make the inflation rate positive. This monetary course and the accompanying fiscal policies have not been sufficiently effective to kickstart Japan's economy. The focus of the present chapter is a different aspect of the economy, namely labour productivity, which nevertheless is clearly related to economic growth.

We start by describing, in section 4.2, the current situation regarding labour productivity in Japan. It is shown that the increase in productivity has been minor compared with the average for all G7 countries, and that the potential growth rate has decreased. We also decompose the decline in potential growth between 2000 and 2021 – an exercise that reveals that one factor behind this decline is the decrease in working hours. Up to 2010, the contribution of the number of workers is negligible, but after that it becomes positive, meaning that the number of workers increases after 2010.

Section 4.3 looks at the changes in the labour force in terms of population, participation rate, working hours and type of employment. The share of the elderly population is increasing significantly, while that of the working-age population is decreasing. We focus on working hours and labour force participation rate because labour input depends on these factors. One finding is that the proportion of workers working very long hours is decreasing. Productivity may be improving as a result, as workers are able to avoid the health problems associated with excessive hours. This section also reveals an increase in the proportion of non-regular workers. Their labour productivity may be relatively lower because they have less training than regular workers and because they tend to work in sectors with lower productivity, such as the service sector.

Section 4.4 discusses the changes in human resources management (HRM) in Japan and their effect on productivity. One of the essential characteristics of traditional HRM in large Japanese firms is the “competence rank system”, where employees are rewarded according to their rank. This creates a strong incentive for employees to acquire specific skills so that they can be promoted to a higher rank. At the same time, their firms can achieve higher productivity when they upgrade their skills. However, as technology develops significantly, the advantages of this system are becoming less apparent. It is also noted in this section that the correlation between age and salary is decreasing, suggesting that traditional skills formation through in-house training may no longer be adequate for employees to accumulate skills. Education and other types of training, such as vocational training, are essential for workers to improve their skills.

Section 4.5 provides an overview of the literature on education and training, particularly emphasizing the relationship between these two activities and productivity. Although the impact of training on productivity is significant, some firms have no or very limited training programmes for their employees. Reference is made to previous studies which show that workers with a postgraduate degree achieve higher productivity than those without.

Section 4.6 presents some relevant policy packages, including one entitled “Grand Design and Action Plan for a New Form of Capitalism”, in which the Government emphasizes the importance of investment in human capital. The new Corporate Governance Code underlines respect for human rights and fair and appropriate treatment of workers, which includes caring for their health and the working environment. The Code also calls upon firms to improve diversity, particularly in managerial positions. Some firms encourage their senior executives to focus on employees by strengthening the links between executive compensation and employee-related indicators, such as the share of female managers.

Section 4.7 examines gender diversity in greater detail, with a focus on female chief executive officers (CEOs). The proportion of female CEOs is very small in Japan, and despite policy initiatives to increase the number of women in leading positions, it has remained quite stable.

In section 4.8, we consider Japanese firms' policies related to decent work. Although the literature suggests that there is a positive relationship between decent work and productivity, not many firms are adopting relevant policies. Section 4.9 offers some concluding remarks.

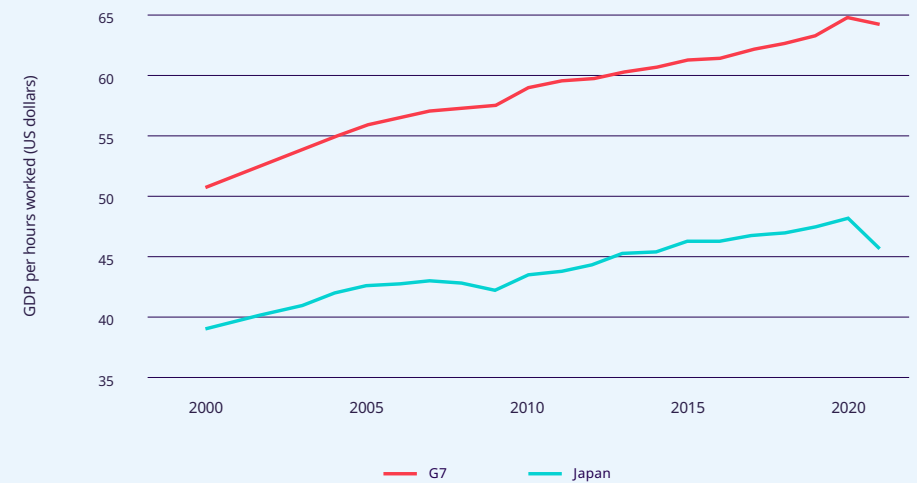
► 4.2. Productivity in Japan: A macro- and meso-level overview

In this section, we examine the following questions: What are the productivity trends in Japan? How can we explain the change in productivity? We first describe the evolution of labour productivity and the potential growth rate, focusing subsequently on several supply-side factors that may explain the decrease in the latter.

4.2.1. Trends in labour productivity and potential growth rate

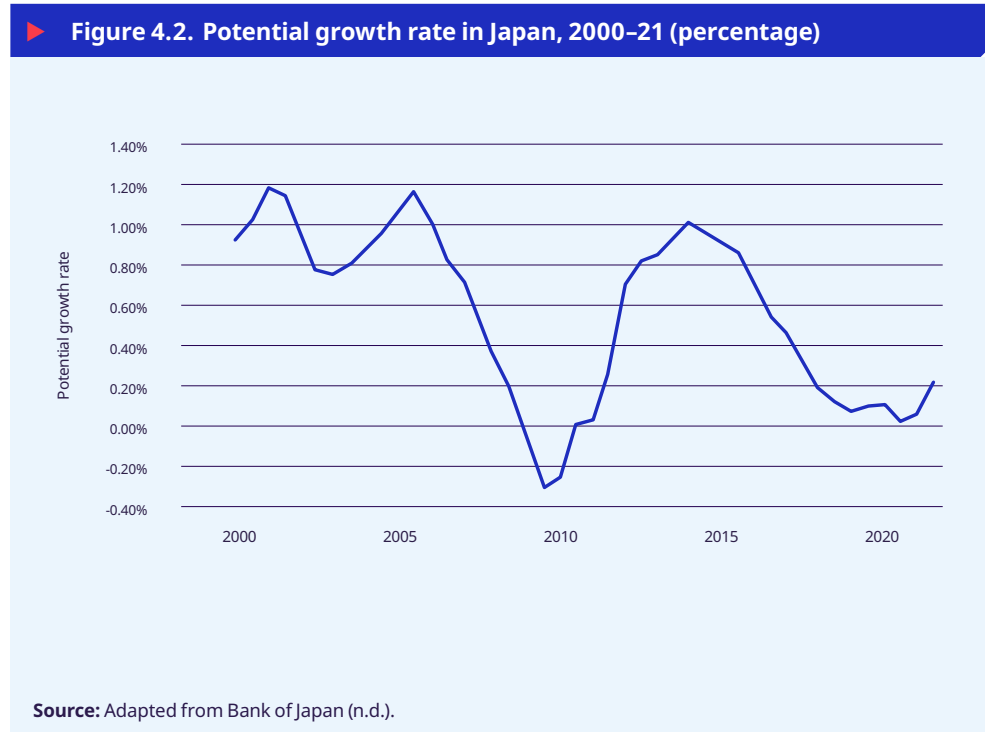
The evolution of labour productivity in Japan and the average for all G7 countries from 2000 to 2021 are presented in figure 4.1. Labour productivity is calculated as GDP per hour worked in US dollars. It may be seen that labour productivity is consistently lower in Japan than the G7 average. At the same time, the differences between G7 countries have become more pronounced during this period. In 2000, labour productivity in Japan stood at US\$39.0, while the G7 average was US\$50.8. In 2021, this metric had increased to US\$45.5 in Japan and to US\$64.2 as the G7 average, which means a growth rate of 16.6 per cent in Japan compared with 26.4 per cent for the G7 countries on average.

► Figure 4.1. Labour productivity in Japan and average for the G7 countries, 2000–21 (GDP per hour worked)



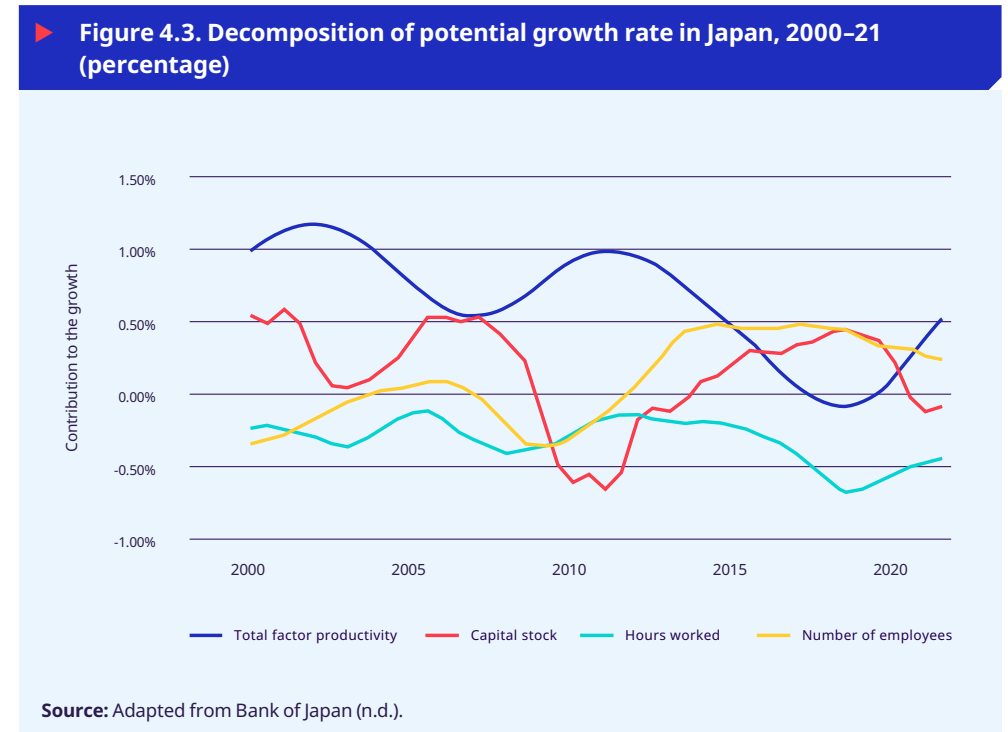
Source: Adapted from OECD (n.d.).

The evolution of the potential growth rate from 2000 to 2021, based on data from the Bank of Japan, is presented in figure 4.2, which indicates a declining trend. The potential growth rate is the year-to-year change (as a percentage) in the growth capacity of Japan's economy from a long-term perspective. This rate was 0.93 per cent in 2000 and had fallen to 0.22 per cent by 2021. It is much lower than the value of 3 to 4 per cent reported throughout the 1980s.



4.2.2. Analysis of the potential growth rate and its evolution

According to Kawamoto et al. (2017), changes in the potential growth rate can be explained by changes in capital accumulation, labour input and total factor productivity. Changes in labour input can be further decomposed into changes in the number of employees and in the hours worked. By means of this decomposition we can understand the contribution of each factor to the decline in the potential growth rate, as shown in figure 4.3.



For example, as already noted, the potential growth rate in 2000 was 0.93 per cent, which is the sum of +0.99 per cent growth explained by total factor productivity, +0.53 per cent growth explained by capital stock, –0.24 per cent growth explained by hours worked and –0.35 per cent growth explained by the number of employees. In other words, the decrease in the number of employees and in hours worked made a negative contribution to the potential growth rate in 2000. Figures 4.5 and 4.6 further down show how both working hours and the labour force participation rate declined between 2000 and 2021.

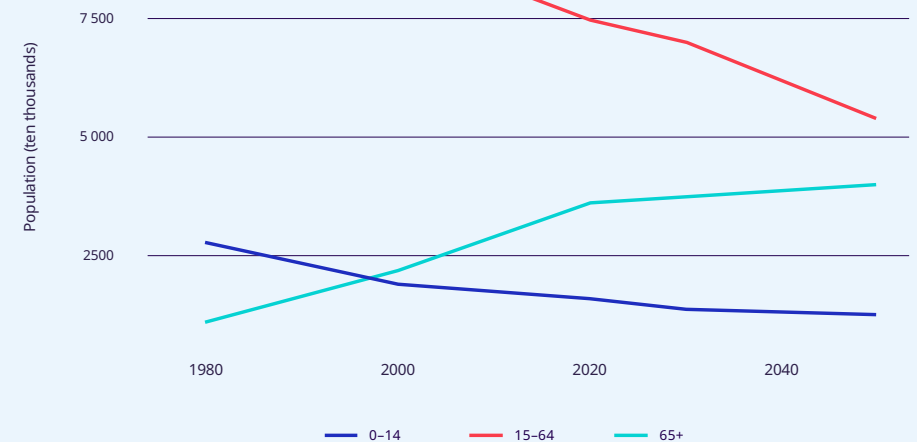
There are several striking features in figure 4.3. First, the contribution of the number of hours worked to the potential growth rate is negative throughout, that is, the number of hours worked decreased consistently over this period. Second, the contribution to growth ascribed to the number of employees increased. It was around or below zero before 2010 but grew steadily thereafter for several years. As discussed in the next section, a certain proportion of this increase in the number of employees can be attributed to greater participation of female and older workers in the labour force. However, the contribution of this factor is offset by the reduction in hours worked. Finally, figure 4.3 shows that the contributions made by changes in, respectively, capital stock and total factor productivity also decrease during the period in question.

► 4.3. Composition of the workforce

4.3.1. Demographic change

In this section, we describe the changes in the composition of the workforce in more detail, since this affects productivity significantly. One of the most notable characteristics of Japan as a country is its ageing population. Figure 4.4 shows the evolution of the Japanese population from 1980 to 2050, based on the 2019 revision of the *United Nations World Population Prospects*. As may clearly be seen there, the elderly population (those aged ≥ 65 years) is increasing, while the working-age and younger populations are declining. In 1980, the share of older people in the total population was 8.9 per cent, and this is set to increase to 37.7 per cent by 2050. The working-age population (15–64 years) is expected to decline from a share of 67.5 per cent in 1980 to 50.7 per cent in 2050, or from 79.53 million to 53.66 million. The total population of Japan is projected to decrease from 117.82 million in 1980 to 105.80 million in 2050.

► Figure 4.4. Japan's population, by age group, 1980–2050 (ten thousands)

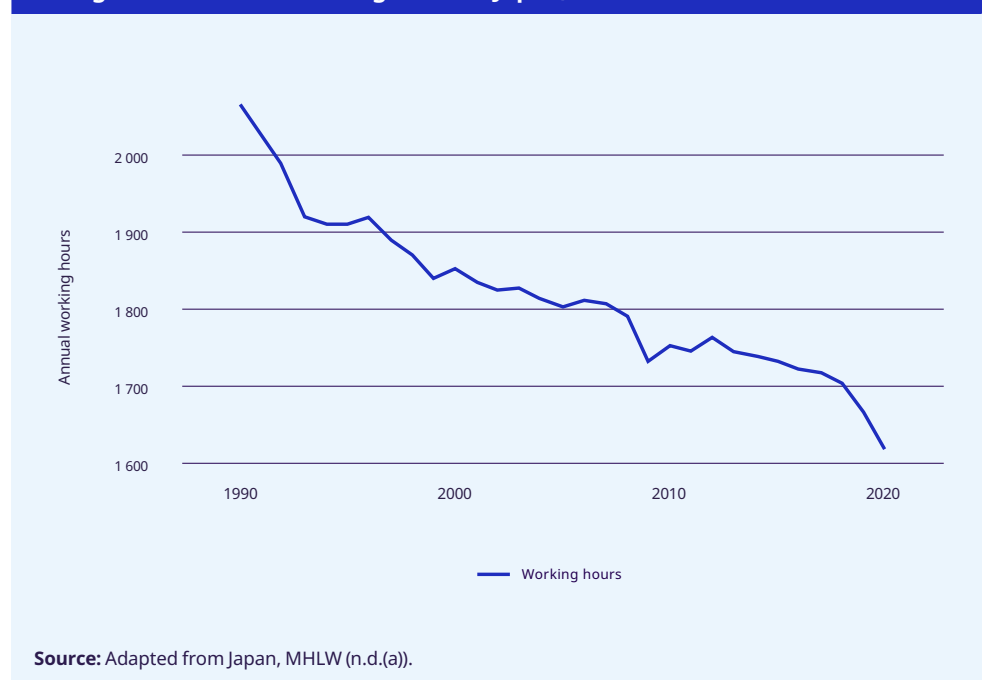


Source: Adapted from UN (2019).

4.3.2. Working hours

The fact that the population is shrinking and ageing does not necessarily mean that GDP will decrease because labour input depends on the number of hours worked, the labour force participation rate and workers' skills. Ogura (2009) has noted that workers in Japan work longer hours than those in other OECD countries, although figure 4.5 below, which is based on data from the Monthly Labour Survey, indicates that working hours have continuously declined in Japan. The figure shows the total number of hours worked by regular workers during the survey period, including both scheduled and non-scheduled hours, such as overtime. On average, hours worked declined by around 27 per cent from 2,064 hours/year in 1990 to 1,621 hours/year in 2020. Figure 4.5 captures the working hours of regular workers but does not reflect the increase in non-regular workers, which will be discussed below. One possible inference from this trend is that the decrease in working hours may lead to a reduction in output.

► Figure 4.5. Annual working hours in Japan, 1990–2020



Source: Adapted from Japan, MHLW (n.d.(a)).

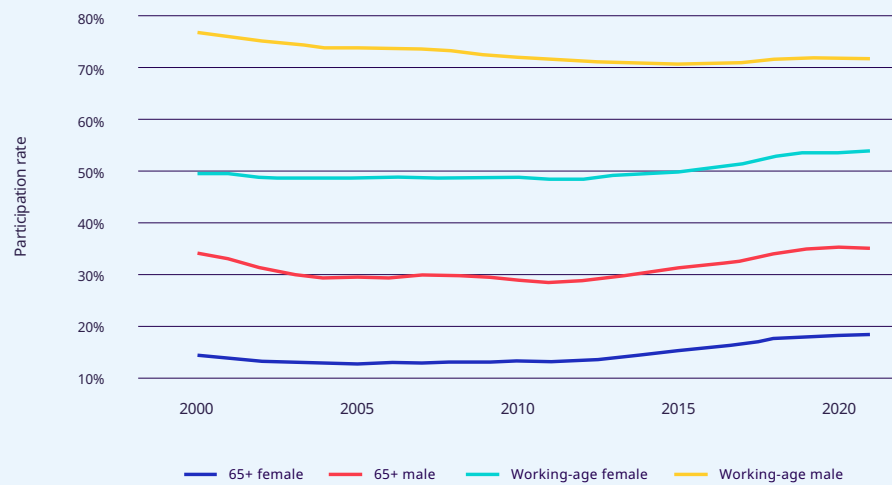
It may be the case that long working hours reduce labour productivity. In general, if the amount of overtime done by a worker exceeds a certain threshold, productivity declines because of, for example, fatigue and loss of concentration. Ogura and Sakaguchi (2004) suggest that labour efficiency would increase if working hours were to be cut. Other statistics likewise show that the proportion of workers who work long hours is decreasing. According to the Japan Institute for Labour Policy and Training, the share of workers who work more than 49 hours per week decreased from 32.0 per cent in 2010 to 21.5 per cent in 2020 (JILPT 2022). However, that share for 2020 is still higher than in other G7 countries – for example, 18.3 per cent in the United States, 12.3 per cent in France and 8.9 per cent in Germany. In Japan, the problem of long working hours is particularly severe among middle-aged male workers. A white paper on the labour market shows that 12.5 per cent of male employees worked more than 60 hours per week in 2012, although that proportion had decreased significantly to 6.5 per cent by 2020. Productivity per hour may well improve if a working week of fewer than 60 hours becomes even more widespread (Japan, MHLW 2021).

One mechanism whereby long working hours have a negative impact on productivity is that the workers concerned tend to get insufficient sleep. In addition, a person with less sleep time may consume more alcohol and smoke more. There may also be an association between short sleep time and increased mortality. Modelling the economic costs of insufficient sleep in Canada, Germany, Japan, the United Kingdom and the United States, Hafner et al. (2016) estimated that annual economic loss in Japan could reach US\$138 billion by 2025. In view of the direct link between insufficient sleep and long working hours, it may legitimately be argued that economic growth can be increased by reducing the number of working hours. According to Monthly Labour Survey data for 2022, the working hours of regular employees in transport and postal activities, construction and the food service industry are exceptionally high.

4.3.3. Labour force participation rate

Another important factor that determines labour input is the labour force participation rate, which is the ratio of the labour force to the total working-age population (those aged 15–65 years). The evolution of this rate in Japan from 2000 to 2021 is shown in figure 4.6 on the basis of Labour Force Survey data. As in other countries, the labour force participation rates of women and older people are comparatively low. In 2000, the rate for working-age men was 76.4 per cent, compared with 34.1 per cent for older men (≥65 years), 49.3 per cent for working-age women and 14.4 per cent for older women (≥65 years). The labour force participation rate for working-age men decreased to 71.3 per cent in 2021, partly owing to the ageing population. One important trend that can be seen in figure 4.6 is that the participation rates for working-age women and older men increased considerably from 2011 to 2021, namely from 48.2 to 53.5 per cent and from 28.4 to 34.9 per cent, respectively. This increase in labour force participation rates contributes to an increase in the potential growth rate (figure 4.3). Using a general equilibrium model populated by overlapping generations, Kitao and Mikoshiba (2020) concluded that an increase in participation by female and older workers can mitigate the effect of demographic ageing on the macroeconomy.

► **Figure 4.6. Labour force participation rate in Japan, by age and sex, 2000–21 (percentage)**



Source: Adapted from Japan, Statistics Bureau (n.d.).

4.3.4. Type of employment

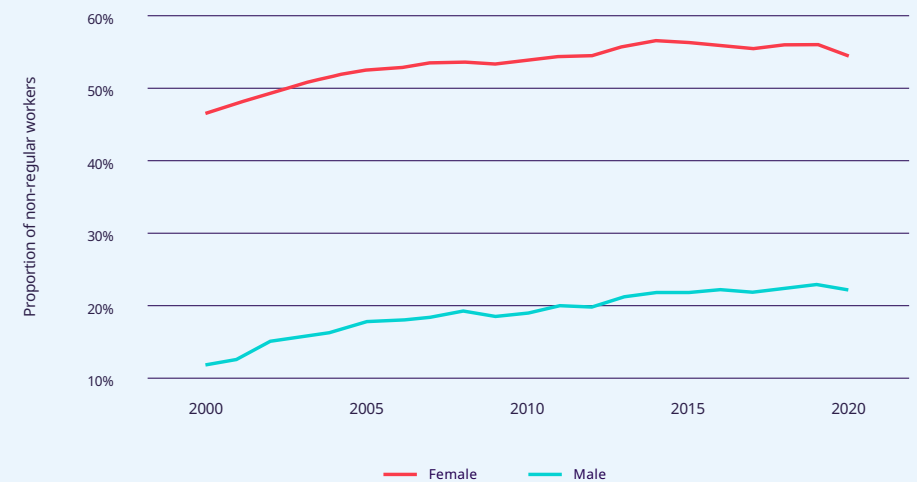
Another notable feature of the Japanese labour market is that there is a high proportion of non-regular workers¹ among female workers. The effect of an increase in non-regular workers on the potential growth rate should be smaller than that of an increase in regular workers because, on average, non-regular workers work fewer hours. In addition, it is often the case that non-regular workers receive less training. One of the key differences between regular and non-regular workers has to do with job security, in that it is easier for firms to lay off the latter. Therefore, non-regular workers have less of an incentive to stay with the same firm. The evolution of the share of non-regular workers among male and female workers is shown in figure 4.7, which is based on Labour

¹ Employees are classified into regular and non-regular workers according to the job title that they have in their workplace.

Force Survey data. This share has increased considerably for both sexes. In 2000, it stood at 11.7 per cent among male workers and 46.4 per cent among female workers, rising to 22.1 per cent and 54.4 per cent, respectively, by 2020. One reason for this may be the increase in service sector workers, such as those employed in supermarkets, convenience stores or the care industry.

The increase in non-regular workers can have a negative impact on labour productivity. First, the productivity of such workers tends to be lower because they receive less training from employers and develop their human capital more slowly. In addition, non-regular workers may have a lower incentive to acquire skills, especially if they expect to leave the firm soon, and they tend to work in less productive sectors, such as the service sector.

► **Figure 4.7. Share of non-regular workers in Japan, by sex, 2000–21 (percentage)**



Source: Adapted from Japan, Statistics Bureau (n.d.).

► 4.4. Skills formation in traditional Japanese firms

It is often argued that seniority-based pay is an essential characteristic of HRM in large Japanese firms. Some believe that wages in such a system depend on age and length of service. Although there is a strong correlation, it does not necessarily mean that wages are determined exclusively by age. If that were the case, there would be no incentive for employees to acquire additional skills or to work hard.

Earlier studies have revealed that so-called seniority-based pay is in fact based on employees' skills (Koike 1994; Tsuru, Abe and Kubo 2005; Uehara 2009; Cooke, Kubo and Lee 2018). Cooke, Kubo and Lee (2018) note how the traditional wage structure in large Japanese firms motivates their employees to acquire skills.

Traditionally, salaries in large Japanese firms are determined according to competence rank, which is based on an employee's skills. Newly recruited employees are assigned the lowest rank in the hierarchy. Employees are typically required to acquire specific skills if they want to be upgraded to a higher rank. In addition, they need to spend a specific number of years within a given rank before being upgraded. Given that many middle managers are expected to occupy the same position for a long time before they are promoted, managers who have been with the firm for many years tend to receive a higher salary than those with shorter tenure because rank is a significant determinant of salary. However, long tenure does not guarantee a higher salary. Many employees receive relatively low salaries even though they have been with a firm for a very long time. Employees therefore have a strong incentive to acquire skills so that they can be upgraded. As employees expect to stay in the firm for an extended period, they are happy to spend time and effort on acquiring skills. At the same time, firms are likely to invest in their staff because employee retention is not a problem even after skills upgrading.

There are two types of skills: firm-specific and general. Firm-specific skills refer to those that are useful to a specific firm; general skills comprise the knowledge and competencies that enhance a worker's productivity, not only in a given firm. For example, knowledge of information technology and accounting falls into the category of general skills because these subjects are useful in many firms. By contrast, specific knowledge of a firm's products and human network counts as firm-specific skills. Although these skills are helpful in a particular situation, workers may not use them any more once they move to another firm. Under a competence-rank wage system, employees are strongly motivated to acquire firm-specific skills because the skills required for promotion to a higher rank are defined differently by each firm.

On the whole, though, workers often prefer to acquire general rather than firm-specific skills. In such cases, firms may need to create an incentive for employees to acquire firm-specific skills because a firm's competitiveness is likely to depend precisely on these. For example, one of the most important factors underpinning Japan's competitiveness in the automotive industry is its close network of firms, or keiretsu (Asanuma 1989). Car manufacturers have a long-term relationship with supplier firms, which in turn have close links with their own suppliers. The connections in this network are essential for firms to cooperate with a view to achieving higher productivity. In these circumstances, firms may want to provide workers with incentives for them to stay longer and acquire firm-specific skills – something that comes mainly with experience and on-the-job training. However, such arrangements have become less relevant to skills formation because of technological change. The traditional system implicitly assumes that, once acquired, skills do not depreciate with time. In other words, older employees receive a higher salary because they have accumulated a greater number of skills. However, as a result of rapid changes in technology, various types of skills may become obsolete, resulting in younger employees having more up-to-date skills than their older colleagues. Traditional HRM practices are therefore becoming less suitable for raising productivity as the importance of firm-specific skills decreases. In addition, young workers have a lower incentive to acquire firm-specific knowledge.

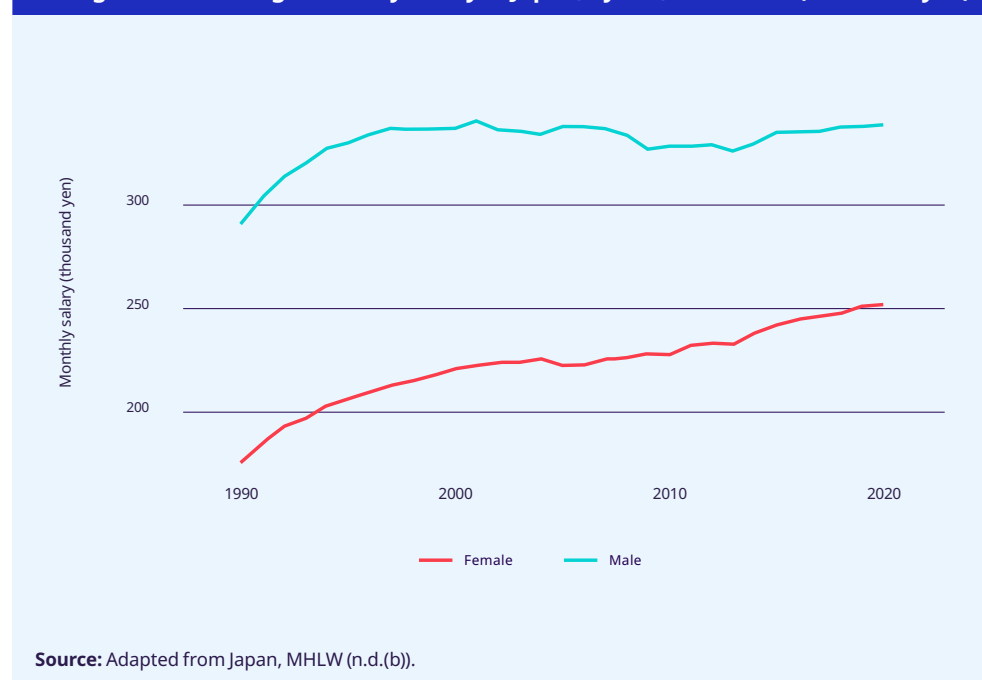
Tsuru, Abe and Kubo (2005) found that the relationship between age and salary is becoming weaker. They used wage data from three firms and estimated the relationship between age and wages using the coefficient of determination (R^2) of the regression, in which the dependent variable was each employee's salary and the only independent variable was the employee's age. They showed that the coefficient became smaller as the firm reformed its wage structure. For example, in one of the firms the coefficient of determinants was 0.794 in 1996 – that is, around 80 per cent of the wage variation in that firm could be explained by the age of employees. By 2001 the coefficient had decreased to 0.301, indicating a weaker correlation. Similarly, Cooke, Kubo and Lee (2018) also observed a weakening of the relationship between age and salary. Using data from the Basic Survey on Wage Structure, they examined the age–wage profile of workers with university degrees in firms with more than 1,000 employees in 1981, 2000 and 2014. They found that this age–wage profile became flatter with time, which is consistent with the findings of Hamaaki et al. (2012) based on large-scale microdata from the same survey series. In particular, Hamaaki et al. (2012) showed that the correlation between age and wages became particularly weak for workers in the middle or final phases of their career. These results suggest that the traditional system for skills formation is not as effective as it used to be, and that workers may need alternative mechanisms to acquire skills.

► 4.5. Education, skills and training

Since the productivity of workers depends on their skills, examining developments in education, skills and training in Japan is crucial. In this section, we first outline the evolution of wage differences between men and women before proceeding to analyse trends related to education and skills and their impact on productivity. We also describe the impact of education and training on wages, bearing in mind that there is a positive association between productivity and wages.

Figure 4.8 shows the evolution of monthly salary from 1990 to 2020, based on data from the Basic Survey on Wage Structure. One interesting feature here is that the average monthly wage of a male worker has remained essentially unchanged since the mid-1990s, whereas the average for female workers has increased. The average monthly salaries of male and female workers were, respectively, 330,000 yen and 206,200 yen in 1995, and 338,800 yen and 251,800 yen in 2020. Thus, the average salary of a male worker increased by just 2.7 per cent between 1995 and 2020, while that of a female worker increased by 22.1 per cent. It is possible that the proportion of skilled workers among female workers increased during this period. At the same time, there is still a wide gender pay gap.

► Figure 4.8. Average monthly salary in Japan, by sex, 1990–2020 (thousand yen)



The effect of education on productivity has been studied extensively (Hanushek and Woessmann 2011; Konings and Vanormelingen 2015; Morikawa 2015; Meghir and Rivkin 2011; Onishi and Nagaoka 2018), with the findings of most such studies pointing to a positive relationship between the two. For example, an increase of one standard deviation (100 score points on the Programme for International Student Assessment (PISA) scale) in a country’s intellectual skills raised the average growth rate by 2 percentage points over a 40-year period (Hanushek and Woessmann 2011). Some of these studies examined the association between education and wages as a proxy of productivity in the United States and the United Kingdom, concluding that more extensive education leads to higher salaries. In other words, private returns on education tend to be positive. However, only a few such studies have focused on Japan (for example, Morikawa 2015), one reason for this being that many government statistics do not distinguish between undergraduate and postgraduate degrees. Morikawa (2015) investigated the effect of postgraduate education on labour market outcomes, drawing mainly on microdata from the 2007 Employment Status Survey, which covered around 450,000 households, or 1 million people. His analysis showed an increase in the number of workers with

postgraduate education. In 2007, the proportion of young (25–29 years) workers with a postgraduate degree (master’s or doctorate) was 3.8 per cent, compared with 1.1 per cent for those aged 55–59 years. Overall, the number of workers with a postgraduate degree was 1,273,000 (2.2 per cent of all workers).

Morikawa (2015) also reported a difference in the age–wage profile between those with undergraduate and postgraduate degrees. For those with only undergraduate education, wages dropped significantly after they reached the age of 60, which was not the case for those with a postgraduate degree. The wage premium for postgraduates relative to undergraduates was between 30 and 40 per cent for both male and female workers, which is comparable with data from the United States and the United Kingdom. In addition, Onishi and Nagaoka (2018) have identified a positive relationship between postgraduate education and innovation.

The effect of on-the-job and off-the-job training on productivity and wages has also been studied extensively (Ariga et al. 2013; Kurosawa 2001; Leuven 2005). Konings and Vanormelingen (2015) found that firm-level productivity improved by 1.7 to 3.2 per cent with a 10 per cent increase in the share of trained workers. Morikawa (2021) used a large panel data set for 2009–18 from the Basic Survey of Japanese Business Structure and Activities to examine how off-the-job training affected productivity. The survey in question comprises one of Japan’s most comprehensive firm-level databases and includes around 30,000 firm-year items. Morikawa (2021) found that the effect of firm-provided off-the-job training on productivity was significant: an increase of 1 per cent in accumulated training stock led to an increase of 0.0307 per cent in productivity. The increase was larger in the service industry (0.0359 per cent) than in manufacturing (0.0224 per cent). He also found that returns on a firm’s employee training were generally high, and considerably higher for firms in the service sector. Furthermore, training had a positive impact on wages. These findings suggest that the current level of training is insufficient and that firms can improve their performance by investing more in employee training.

Ariga et al. (2013) conducted a questionnaire-based survey among workers at a car assembly plant to investigate the relationship between on-the-job training and productivity. They reported that assemblers received training when assigned to a new operation, and that there was a positive relationship between such training and productivity. One mechanism through which productivity is increased involves the number of skills – indeed, it has been observed that factories with multiskilled workers perform better (Koike 1994).

In addition to training by firms, the Government offers several types of vocational training, particularly for jobseekers, through the Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers, including its local centres and prefectural offices. These provide vocational training as well as counselling and assistance from advisers. In addition, the Government provides training for employed workers and those who have just left secondary school. In 2022, a white paper on the labour economy, drawing on large-scale microdata, examined whether such public vocational training helped jobseekers to find jobs (Japan, MHLW 2022). Of 1.2 million jobseekers in 2020, 25,000 received training and found a job; 10,000 individuals received training but did not find a job; 328,000 did not receive training and found employment; and 833,000 did not receive training and did not find a job. Analysis by the Ministry of Health, Labour and Welfare using propensity score matching to compare the effect of training between groups with similar characteristics found that jobseekers who receive public vocational training are more likely to find jobs (Japan, MHLW 2022). In addition, jobseekers who do not have experience in the fields of healthcare or social care can find work in these sectors after training. On the whole, public vocational training helps jobseekers to find jobs in certain sectors and to enhance labour mobility across sectors.

► 4.6. Government policy to enhance investment in human capital

Traditionally, Japanese companies have not placed so much emphasis on maximizing shareholder wealth, focusing instead on the interests of stakeholders such as banks and employees. Yoshimori (1995) investigated this topic using a questionnaire-based survey in which respondents from several countries were asked to choose between two options to describe how corporations were managed in their countries: (1) “Shareholder interest should be given the first priority”; and (2) “A firm exists for the interest of all stakeholders.” Most managers in the United Kingdom and the United States were of the view that companies were run for the benefit of shareholders, whereas the overwhelming majority of their Japanese counterparts believed that they were run for the benefit of all stakeholders, including employees (Yoshimori 1995). Several anecdotes support the notion that Japanese firms prioritize employees’ interests. In 1998, Moody’s, a credit rating firm, downgraded Toyota’s corporate bonds, citing as one reason the fact that Toyota was seeking to maintain its lifetime employment system. In response, the Chairman of Toyota Motor Corporation observed: “We are not going to lay off any employees in order to raise the stock price and dividends” (*Nihon Keizai Shimbun* 1998). From this we can conclude that Toyota at that time was managing its business with an emphasis on the interests of its employees. Similarly, the Chairman of Nikkeiren, a major federation of employers’ associations, made the following statement in 1994:

Of course, it is better to pay more dividends, but a company is a component of society (rather than belonging to the shareholders). It is up to the shareholders to decide how much they are willing to put up with. (*Nihon Keizai Shimbun* 1994)

However, there has been much criticism of this attitude in view of the poor performance of large Japanese firms. Nakano and Aoki (2016) compared the profit margins of Japanese listed companies over the period 1982–2007 with those of similar companies in Australia, Canada, France, Germany, Italy, the Netherlands, the Republic of Korea, Spain, the United Kingdom and the United States. Return on assets in Japan averaged 2.5 per cent, which was lower than all other countries, such as the United States (4.4 per cent) and the United Kingdom (5.2 per cent). Another important finding was that Japan had the smallest dispersion in return on assets among these 11 countries. In other words, Japanese firms can be considered as being characterized by low risk and low returns compared with those of other countries. More recent data confirm this finding. The Ministry of Economy, Trade and Industry compared returns on assets and equity for TOPIX 500 companies in Japan, S&P 500 companies in the United States, and Bloomberg European 500 Index companies in Europe during the fiscal year 2018. The average returns on assets and equity of Japanese companies were found to be 4.0 per cent and 8.7 per cent, respectively, whereas those of US companies were 6.2 per cent and 15.6 per cent, and those of European companies were 4.2 per cent and 12.2 per cent, respectively. This indicates that Japanese companies are underperforming compared with their counterparts in the United States and Europe (Japan, METI 2019).

In response to the criticism of Japanese companies' poor performance, a number of policies have been implemented since the 1990s to revitalize the capital markets. Examples of such institutional changes include the 1997 amendment to the Antimonopoly Act, which eliminated the absolute prohibition on pure holding companies, and the 1999 amendment to the Commercial Code, which introduced share exchange and transfer systems. Furthermore, several corporate governance measures have been adopted since 2010, including the 2014 amendment to the Companies Act, the Stewardship Code in 2014, the Corporate Governance Code in 2015 and the Practical Guidelines for Corporate Governance Systems in 2017.

As a result of these policies, corporate governance in large Japanese companies has changed considerably. For example, in recent years, many listed companies have brought in outside directors (as opposed to internally appointed ones). Table 4.1 shows the composition of the Board of Directors at the Toyota Motor Corporation over the period 2002–19. It is worth noting that Toyota had a large Board before 2023, when the number of directors was reduced from 58 to 26. In 2011, the number was reduced further still, from 27 to 11. A recent emphasis on diversity is also evident. In 2019, two of the nine directors were non-Japanese

and one was a woman. In addition, outside directors were introduced in 2013; a similar change can be observed in the boards of directors at many other Japanese listed firms. There have been significant changes in ownership structure as well. Cross-shareholdings have decreased, and the ratio of foreign ownership has increased (Miyajima and Kuroki 2007; Miyajima and Nitta 2011). Investment by investment funds has also increased (Kubo 2014). Because of these changes, senior managers in listed firms are under strong pressure to maximize shareholder value.

► **Table 4.1. Changes in Toyota's Board of Directors, 2002–22**

Year	Board size	Outside directors	Foreign directors	Women
2002	58	0	0	0
2003	26	0	0	0
2010	27	0	0	0
2011	11	0	0	0
2013	16	3	1	0
2019	9	3	2	1
2022	12	3	2	2

Source: Compiled from Toyo Keizai (n.d.).

Behind these governance reforms was the belief that they would increase corporate value. However, as the focus has shifted to investor interests, relatively less attention is now accorded to employees and other stakeholders. In addition, it has been pointed out that as external monitoring has become stronger, companies may be prioritizing short-term interests rather than long-term ones. The relative neglect of employees' interests could potentially limit corporate growth in the long run. Similarly, the International Trade Union Confederation has expressed concerns that the increased emphasis on short-term performance may have a negative impact on how employees are treated (ITUC 2007). However, if investment in employee skills and a good work environment increases corporate value, companies with good corporate governance will adopt that approach.

It has been asserted both in Japan and elsewhere that investment in human capital – in the broad sense of employee skills and work environment – is essential to increase corporate value and develop the economy. The “Grand Design and Action Plan for a New Form of Capitalism” approved by the Cabinet of Japan in June 2022 emphasizes the importance of targeted investment in human capital to realize a new form of capitalism. As noted by the Government,

[I]t is necessary to strengthen investment in people through efforts ranging from those in early childhood education as well as childcare and at elementary and junior high schools to those within enterprises. We must respect diversity and inclusion for the purpose of creating a society where all citizens can participate and play an active role, including women, young people, non-regular employees and those in local regions, while establishing an environment where each individual can create added value. (Japan, Secretariat of New Form of Capitalism Realization Headquarters 2021)

The Government has taken other initiatives to motivate investment in human capital and to encourage firms to disclose such investments. Two reports on human capital management in Japanese companies prepared by a study group under Kunio Ito, a professor emeritus at Hitotsubashi University, and issued by the Ministry of Economy, Trade and Industry in 2020 and 2022, respectively, emphasize the importance of linking management strategies with human resource strategies. The “Draft Guidelines for Visualization of Non-financial Information” published by the Cabinet Secretariat in August 2022 and the report of the Working Group on Corporate Disclosure of the Financial System Council published by the Financial Services Agency in December 2022 both require companies to disclose their sustainability-related efforts, in particular investment in human capital and diversity. Similarly, the US Securities and Exchange Commission, the European Union (through its Non-Financial Reporting Directive), the International Organization for Standardization (through the ISO 30414 standard), the International Integrated Reporting Council and others have proposed various frameworks for human capital disclosure. The underlying idea is that investment in human capital is indispensable for the long-term growth of a company and the enhancement of its corporate value.

4.6.1. Corporate Governance Code

One of the most important instruments designed to encourage firms to invest in human capital is the Corporate Governance Code, which was revised in 2021. Among other things, it states:

2.3.1 The board should recognize that dealing with sustainability issues, such as ... respect [for] human rights, fair and appropriate treatment of the workforce including caring for their health and working environment, ... are important management issues that can lead to earning opportunities as well as risk mitigation, and should further consider addressing these matters positively and proactively in terms of increasing corporate value over the mid to long term.

...

2.4.1 Companies should present their policies and voluntary and measurable goals for ensuring diversity in the promotion to [key positions], such as the promotion of women, foreign nationals and mid[-] career hires to middle managerial positions, as well as disclosing their status.

In addition, in light of the importance of human resource strategies for increasing corporate value over the mid to long term, companies should present [their] policies for human resource development and internal environment development to ensure diversity, as well as the status of their implementation. (JPX 2021)

Traditionally, large Japanese companies have expected their directors and senior executives to learn about the overall business through job rotation. While this has the beneficial effect of speeding up communication between directors and employees and thereby facilitating coordination, it sometimes happens that the members of a board of directors lack the necessary skills. Directors cannot be expected to be professionals in accounting, finance, marketing or HRM. The Corporate Governance Code therefore encourages listed firms to disclose the skill sets of their directors so that investors can peruse them. According to the newspaper *Nihon Keizai Shimbun* (2022), over 80 per cent of large, listed firms have reported such information.

4.6.2. Financial incentives for senior managers to invest in human capital

Focusing on the determinants of executive compensation, Kubo et al. (2022a, 2022b) suggest that the proportion of firms which emphasize the importance of investment in human capital is increasing. Executive compensation typically depends on a firm's financial performance, such as total shareholder return and return on assets (Kubo 2005; Kato and Kubo 2006). If there is an association between total shareholder return and executive compensation, for example, then senior managers have a strong incentive to maximize shareholder value. In addition to financial performance, some companies use corporate social performance when determining executive compensation (Hong, Li and Minor 2016; Benson and Davidson 2010; Berrone and Gomez-Mejia 2009; Kubo and Uchigasaki 2017). For example, Hong, Li and Minor (2016) examined annual reports of listed US firms and found that 38 per cent of the companies in their sample used corporate social responsibility (CSR)-related indicators when setting executive salaries. Kubo and Uchigasaki (2017) note how non-financial performance indicators are used in the United States to determine executive pay.

For example, Alcoa, a US aluminium producer, explicitly uses non-financial indicators such as environmental friendliness and employee diversity to determine cash incentives for executives. Senior managers are evaluated using two main types of criteria: financial indicators, such as profits, and non-financial indicators, such as the proportion of women among executives, employee safety and positiveness of the work environment. Targets are set for each indicator and the cash incentives awarded depend on the degree to which these targets are achieved. For example, the percentage of women and members of ethnic minorities in the workforce is used to gauge employee diversity. For employee safety, the "Days Away, Restricted and Transferred" (DART) metric is applied. These indicators are used because safety, environmental responsibility and employee diversity are integral to the company's values and improve operational performance.

Senior managers in large Japanese firms have traditionally had less of a financial incentive to enhance performance than their US counterparts (Kubo 2005). Investors criticize these incentive structures because executives are less keen to take risks to maximize shareholder value. However, in recent years, an increasing number of firms have sought to strengthen the relationship between financial performance and

executive pay (Kubo et al. 2022a, 2022b), and some firms have adopted non-financial performance metrics in addition to those based on financial performance. For example, executive compensation at J. Front Retailing, which operates the Daimaru Matsuzakaya department stores and Parco shopping centres in Japan, is designed to incentivize managers to pursue sustainability as well as financial performance. Senior managers' compensation at the company is made up of three components: a fixed compensation, an annual bonus and a performance share. Annual bonuses are set according to short-term performance, while performance shares are linked to medium- and long-term performance. Performance shares are determined by the consolidated operating profit (40 per cent), return on equity (40 per cent), reduction in greenhouse gas emissions (10 per cent) and the proportion of female managers (10 per cent).

Hazama Ando, a civil engineering and construction company, is another example of a Japanese firm that takes employees' interests into account in executive compensation. The company's vision focuses on four stakeholders: customers, shareholders, employees and society. With regard to employees, it states: "We will realize employee happiness and fulfilment of job satisfaction by providing a safe and comfortable work environment" (Hazama Ando Corporation 2022). Specifically, the company aims to promote mental and physical health, foster a good work-life balance, and support career development and diverse work styles. Executive compensation in Hazama Ando depends on financial and non-financial indicators, including employee-related factors.

Drawing on a survey of 324 large firms in 2021, Kubo et al. (2022a, 2022b) show that many of them have introduced non-financial performance measures to determine executive pay. The authors identified various types of indicators – based on environmental friendliness, human rights, safety, employees and CSR – that are used by firms to set incentives. As far as annual bonuses were concerned, 3.7 per cent of the firms surveyed used employee-related factors as performance indicators. Similarly, employee-related factors were used in setting long-term incentives by 4 per cent of firms. In general, the importance of non-financial measures of performance is clearly increasing.

► 4.7. “Womenomics”

As mentioned in section 4.3, women account for a significant proportion of non-regular workers. Such workers often have limited opportunities for promotion and training. Related to this is one of the most serious problems from the viewpoint of equality, namely that the proportion of women in leading positions in Japanese companies is very small. To address this problem, the Cabinet under the late former Prime Minister of Japan, Shinzo Abe, launched a campaign for women’s empowerment and engagement called “Womenomics”. As Mr Abe said at the World Economic Forum in 2014, “Japan must become a place where women shine. By 2020, we will make 30 per cent of leading positions to be occupied by women” (Ozawa et al. 2015). This goal has yet to be fulfilled, and the proportion of women in leading positions is still low.

Kubo et al. (2021) compared the characteristics of the boards of directors and CEOs in Japan and the United Kingdom. For the Japanese data, they looked at the CEOs of firms making up the JPX-400 stock market index, while for the UK data they considered the CEOs of firms included in the FTSE 350 index. From table 4.2 it is clear that older Japanese men dominate leadership positions in large firms. The proportion of female CEOs is only 1.3 per cent in Japan, which is much lower than the corresponding share of 6.3 per cent in the United Kingdom. The proportion of foreign CEOs is also much smaller in Japanese companies.

► **Table 4.2. Profiles of chief executive officers in Japan and the United Kingdom, 2019**

		Proportion of female CEOs	Average age	Proportion of foreign CEOs
Japan	JPX 400	1.30%	62.8 years	1.6%
United Kingdom	FTSE 350	6.30%	54.3 years	31.7%

Source: Adapted from Kubo et al. (2021, fig. 2).

Tracing the evolution of the share of female CEOs in more detail using data from listed Japanese firms from 2004 to 2015, Kubo and Nguyen (2021) confirm that this proportion still remains very small. In their data set of 41,879 firm-year observations, the proportion of female CEOs was only 0.8 per cent, with just 74 female CEOs at the helm of listed firms. This is a much smaller share than in China (5 per cent), in Fortune 500 companies (4.8 per cent) and in the largest 145 Scandinavian firms (3 per cent), and much smaller still than the average of 18 European countries (9.4 per cent) (Liu, Wei and Xie 2014; Faccio, Marchica and Mura 2016). Table 4.3 summarizes the findings of Kubo and Nguyen (2021), showing the total number of CEOs and the number of female CEOs from 2004 to 2015. The authors classified female CEOs into three categories: founders, heirs and promoted employees. Significantly, the proportion of female CEOs remained stable over the period in question, which includes the “Womenomics” years. In contrast, the authors found that the proportion of female directors increased during the same period. Another interesting finding is that around one third of female CEOs are heirs, that is, they inherited the firm from their family.

The possibility of there being a significant relationship between female leadership and productivity has been examined in the literature. Some studies suggest that female managers are less inclined to be overconfident than their male counterparts (Barber and Odean 2001; Chen et al. 2019; Deaux and Farris, 1977; Lundeberg, Fox and Punčcohar 1994) and are more likely to be risk-averse (Bertrand 2011; Faccio, Marchica and Mura 2016). Firms with a female CEO are less likely to be involved in criminal activities than those under male leadership (Dollar, Fisman and Gatti 2001; Hanousek, Shamshur and Tresl 2019; Swamy et al. 2001). Some studies find that firms with female managers are more likely to perform better (Khan and Vieito 2013), while others report negligible differences. According to Brinkhuis and Scholtens (2018), there is little difference in the stock market reaction to the appointment of female and male executives. In addition, there are numerous studies that look at the effect of gender diversity in the board of directors on corporate behaviour and value (Adams, Almeida and Ferreira 2009; Campbell and Mínguez-Vera 2008; Conyon and He 2017; Dezső and Ross 2012; Green and Homroy 2018; Gregory-Smith, Main and O’Reilly 2014; Levi, Li and Zhang 2014; Liu, Wei and Xie 2014; Sila, Gonzalez and Hagendorff 2016; Tanaka 2019). The results are inconclusive: some report a positive association (Liu, Wei and Xie 2014; Levi, Li and Zhang 2014; Green and Homroy 2018), while others do not find any significant relationship.

► Table 4.3. Female chief executive officers in Japan, 2004–15

	Total CEOs	Female CEOs	Proportion of female CEOs	Breakdown of female CEO types		
				Founder	Heir	Promoted employee
2004	3 462	25	0.72%	6	9	10
2005	3 557	27	0.76%	9	9	9
2006	3 640	30	0.82%	11	8	11
2007	3 721	27	0.73%	11	10	6
2008	3 680	28	0.76%	11	11	6
2009	3 565	27	0.76%	12	9	6
2010	3 449	29	0.84%	11	10	8
2011	3 388	25	0.74%	7	8	10
2012	3 341	25	0.75%	10	7	8
2013	3 328	25	0.75%	8	9	8
2014	3 355	24	0.72%	6	6	12
2015	3 393	28	0.83%	6	9	13
Total	41 879	320		108	105	107

Source: Adapted from Kubo and Nguyen (2021, tab. 2).

► 4.8. Decent work and productivity

This section focuses on the relationship between decent work and productivity. In 1999, the ILO proclaimed decent work to be one of its primary goals, specifically:

... to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity. ... Decent work is the converging focus of all its [the ILO's] four strategic objectives: the promotion of rights at work; employment; social protection; and social dialogue. (ILO 1999)

The Japanese Government also has decent work as a policy goal. According to the Comprehensive Strategy for the Rebirth of Japan, “the government will strive to create favorable condition[s] for all people to become motivated and demonstrate their abilities, aiming to attain ‘decent work’” (Japan, Cabinet Office 2012).

When examining the decent work policies of firms, one crucial question is whether those with better working conditions perform better. Several studies (Carvalho and Areal 2016; Edmans 2011; Faleye and Trahan 2011; Fulmer, Gerhart and Scott 2003) note a positive relationship between a good work environment and firm performance. For example, Edmans (2011) found that firms nominated as “great places to work” perform better on the stock market.

Several studies have sought to quantify the various characteristics of decent work (Anker et al. 2003; Bescond, Châtaignier and Mehran 2003; Ghai 2003; ILO 2013) and many of these use macroeconomic data, such as the unemployment rate. In contrast, Kubo (2018) drew on data covering 1,258 listed firms in 2015 to develop a scoring system for firms’ decent work policies. The data were taken from the Toyo Keizai CSR database, which is based on a questionnaire survey and includes various items concerning employment, work environment, and social and corporate governance. In the employment section, there are 299 items. For example, one item is based on answers to the question: “Does

your company have a policy to protect human rights, or a policy against discrimination?" The item takes the value 1 if the answer is "yes". Other items cover such questions as "The company has a policy on maternity leave for longer periods than stipulated by law?" or "The company has an occupational health and safety management system?"

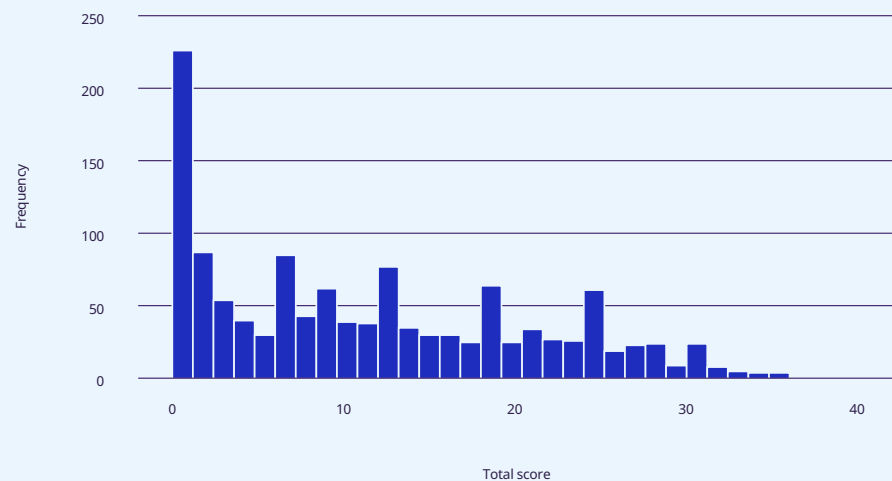
Anker et al. (2003) identify 11 categories of statistical indicators for the six dimensions of decent work as defined by the ILO: (i) employment opportunities; (ii) unacceptable work; (iii) adequate earnings and productive work; (iv) decent hours; (v) stability and security of work; (vi) combining work and family life; (vii) fair treatment in employment; (viii) safe work environment; (ix) social protection; (x) social dialogue and workplace relations; and (xi) economic and social context of decent work.

The aforementioned study by Kubo (2018) focused on five categories to calculate a firm's decent work scores: (a) acceptable work; (b) family; (c) fair work; (d) decent hours; and (e) safety. The author chose items from the Toyo Keizai CSR database that are considered to be closely related to various aspects of decent work. After recoding all the items so that they all took a value of 1 or 0, he calculated the scores for the five individual categories of decent work policies by summing all the items in each category. All the scores were constructed so that higher scores reflect greater decency in working conditions. For example, the score for acceptable work was based on the following seven items:

- The company has a policy to protect human rights, or a policy against discrimination.
- The company engages in due diligence concerning human rights.
- The company has a policy on the ILO Declaration on Fundamental Principles and Rights at Work.
- The company has a policy on freedom of association and on effectively recognizing the right to collective bargaining.
- The company has a policy on the elimination of forced or compulsory labour.
- The company has a policy on the abolition of child labour.
- The company has a policy on the elimination of discrimination in regard to employment and occupation.

Similarly, Kubo (2018) calculated the decent hours score from items such as whether the company "has a policy to prevent excessive work hours" and whether "overtime work is properly compensated"; the family-friendly work score from items such as whether the company "has a policy on maternity leave periods that are longer than those stipulated by law"; the fair treatment score from items such as whether the company "has a designated section for the promotion of diversity"; and the safe work score from items such as whether the company "has received an award for its occupational health and safety this year". The total score could range from 0 to 38, with a higher value indicating that the company had adopted a greater number of decent work policies. For the 1,258 listed firms in the 2015 sample, Kubo (2018) reported that the median value of the total score was 10 and the 25th percentile score was 3. Typically, large Japanese firms adopted around 10 decent work policies and achieved an average score of 38. Figure 4.9 shows the distribution of the total score. One of the most striking features is that the total score is zero for a significant proportion of Japanese firms, meaning that they had not adopted any decent work policies at all. Because previous studies have suggested that there is a positive relationship between decent work and productivity (Carvalho and Areal 2016; Edmans, 2011; Faleye and Trahan 2011; Fulmer, Gerhart and Scott 2003), such firms may be able to improve their productivity by introducing decent work policies. There are several possible mechanisms through which firms can achieve higher financial performance by becoming a better place to work. For a start, such a policy enables the company to recruit and retain a better workforce. Employees are incentivized to stay longer with the firm. They also have an incentive to acquire firm-specific skills and to work hard. As explained in section 4.4, Japanese firms generally need to motivate their employees to develop firm-specific skills. There is accordingly a positive relationship between good working conditions and productivity. Similarly, Carvalho and Areal (2016) note the important effect that a firm's reputation has on productivity. Very often firms with an excellent work environment achieve a good reputation through word-of-mouth communication or by winning various awards. In addition to a good workforce, such a company can count on having good investors and loyal customers.

► Figure 4.9. Distribution of decent work policy scores among Japanese firms, 2015



Note: The bars show the number of firms (from a sample of 1,258 Japanese listed firms) achieving a particular score on a scale ranging from 0 to 38 that measures a firm's adoption of decent work-related policies. For details of the methodology, see Kubo (2018).

Source: Kubo (2018, fig. 1).

One might ask why some firms fail to introduce decent work policies. Kubo (2018) addresses this question by examining the relationship between decent work and corporate governance. Analysis of the same firm-level data from 2015 reveals that firms with better monitoring mechanisms, notably those that have appointed outside and foreign directors, are more likely to adopt such policies. This suggests that investors are fully aware of the importance of employee well-being when it comes to improving productivity.

► 4.9. Conclusion

In this chapter we examined various factors that have an impact on productivity. Our conclusions can be summarized as follows. Productivity in Japan is lower than in other G7 countries; moreover, this productivity gap is widening. One potential reason for this is that the population in Japan is shrinking and ageing, average working hours are decreasing and the nominal amount of labour input is falling. Since output depends on labour input, it will decrease if other conditions remain unchanged.

However, there are many labour market characteristics that affect productivity. The population reduction may be offset to some extent by an increase in the participation rate of female and older workers. Significantly, productivity depends not only on the amount of labour but also on other factors such as education and skills. Studies have shown that postgraduate education and training, both within and outside the firm, contribute significantly to improving productivity in Japan. The Government is actively encouraging firms to invest in human capital through the “Grand Design and Action Plan for a New Form of Capitalism” and the Corporate Governance Code. Some firms are attempting to increase diversity in the workplace, and others are adopting decent work policies. On the other hand, many firms do not conduct sufficient training, and some have not adopted decent work policies at all. One important implication of the above findings is that there is considerable scope for Japan to adopt measures that will help to boost productivity and increase output.

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5. A human-centred approach to increasing workplace productivity: Evidence from the Republic of Korea

Byoung-Hoon Lee and Yongjin Nho

► 5.1. Introduction

The Republic of Korea is a successful example of late industrialization, with the delay attributable in part to such tragic historical events as the Japanese colonial occupation (1910–45), the division of the nation (1945–48) and the Korean War (1950–53). Despite its late industrialization, however, the country has undergone “compressed economic development” since the early 1960s (a process led by an authoritarian State until 1987), pursuing a policy of export-oriented industrialization and achieving average annual GDP growth of more than 8 per cent for 30 years. While the democratization that began in 1987 and the economic crisis of 1997 combined to fundamentally transform the country’s politico-economic framework and labour market system, the Republic of Korea has remarkably consolidated its position in the premier league of the global economy over the past two decades, as evidenced by its being reclassified as an advanced economy by the United Nations Conference on Trade and Development (UNCTAD) in 2021.

Work systems in the country’s firms have typically been dominated by a hierarchical mode of shop-floor management, which is associated with family ownership in both large and small firms (Frenkel and Lee 2010). Authoritarian corporate governance, led by owner-managers, tends to foster patrimonialism and discourage employee involvement (Bae, Kwon and Nho 2008). Low employee involvement in workplaces can also be ascribed to confrontational labour-management relations, with many trade unions taking an “arm’s length” stance towards employers since 1987. In that regard, the typical work systems in the Republic of Korea can be said to constitute an interesting variant of the high-performance model, one that has contributed to the country’s economic success but that is certainly not high-involvement. Although workplace management there has been patterned on the late Japanese model, the widespread labour exclusion in firms in the Republic of Korea stands in stark contrast to the emphasis on labour inclusion in Japan, where managers seek to involve all employees in continuous improvement.¹ Given the authoritarian management style and the adversarial industrial

relations climate, the work system has evolved into a technology-driven model, as reflected in the sharp increase in robot density since the early 1990s (see figure 5.1). In 2019, the Republic of Korea had a robot density in the manufacturing industry of 868 robots per 10,000 workers, the second highest worldwide after Singapore (with a density of 918) and much higher than Japan (364) and Germany (346) as well as the world average (113) (IFR 2021). On the other hand, in the Survey of Adult Skills conducted in 2012 and 2015 under the OECD’s Programme for the International Assessment of Adult Competencies, which compared high-performance work practices (HPWPs) among 29 countries, the Republic of Korea was one of the lowest ranked countries (25th) on the overall HPWP and work organization scores, whereas it scored higher than average on HRM practices (Oh et al. 2018).

► **Figure 5.1. Robot density in the manufacturing industry, Republic of Korea, 1990–2018 (robots installed per 10,000 employees)**



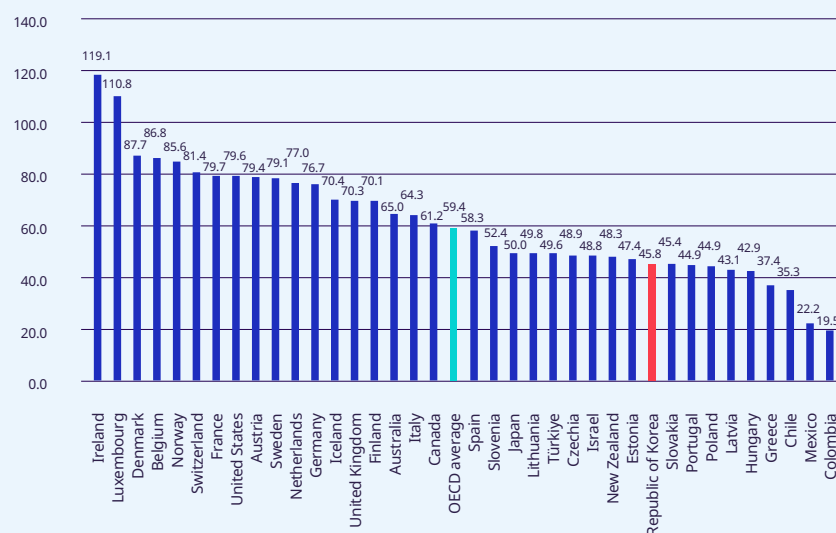
Source: Adapted from Jung (2020, 58).

¹ Similarly, Lee and Jo (2007) point out how Hyundai Motors has developed its own production model, the Hyundai Production System, by first emulating the Toyota Production System and then reinterpreting and modifying that system to adapt it to the company’s unique circumstances, including confrontational labour-management relations. According to their study, the Hyundai system, which entails a labour-exclusive manufacturing approach, is a mutated form of the Toyota system.

The country's work system model can thus be classified as a low-road approach to achieving better economic and business performance in that it involves labour-exclusive and technology-driven workplace management. As can be seen in figure 5.2, labour productivity, measured by GDP per hour worked, stood at US\$45.8 in the Republic of Korea in 2020, which is much lower than the average (US\$59.4) for the OECD countries. Since the 1997 economic crisis, work systems in the Republic of Korea have often been marred by the overuse of non-regular labour and an excessive trend towards "fissured" workplaces (or subcontracted outsourcing), which puts a substantive share of the country's working population in a precarious and vulnerable situation. This reflects the way in which firms have pursued workplace innovation by resorting to workforce optimization rather than worker empowerment, to cite the distinction made by Cappelli (2020). Such technology-centred or management-led workplace innovation in the country's firms appears to be somewhat at odds with the human-centred approach to labour productivity, which involves pursuing a "virtuous circle" of decent work, one of the underlying messages of the ILO Centenary Declaration for the Future of Work (ILO 2019).

Although authoritarian shop-floor management has been widespread across the country's firms (Frenkel and Lee 2010), attempts to adopt a human-centred model of workplace innovation have been made since the mid-1990s. An exemplary case of high-road workplace innovation – one which attracted considerable public attention at the time – was that of Yuhan-Kimberly, where a union-management partnership was established to prevent redundancies during the 1998 economic crisis by adjusting the work shift plans and introducing learning programmes for employee upskilling. The Government, inspired by the success story of Yuhan-Kimberly, undertook policy actions to promote workplace innovation in the early 2000s. According to a workplace panel survey by the Korea Labor Institute, however, the diffusion of innovative practices showed various upswings and downswings until the early 2010s, after which it steadily declined until the late 2010s (Oh et al. 2018). Under the pro-labour Government headed by Moon Jae-in, which took office in 2017, workplace innovation activities were reinvigorated, since a human-centred approach is required to effectively build a "smart factory" system as part of the "fourth industrial revolution" – the key theme of a tripartite agreement concluded in 2020.²

► **Figure 5.2. International comparison of labour productivity in 2020 (GDP per hour worked)**



Note: GDP measured in US dollars, at 2015 constant prices and purchasing power parity.
Source: Adapted from OECD (n.d.).

This chapter looks at evidence of the value of a human-centred approach to enhancing workplace productivity in the Republic of Korea. Such an approach is often synonymous with workplace innovation to promote talent utilization and participatory involvement, as noted in the existing literature, which is reviewed in section 5.2. The chapter then examines the current state of human-centred workplace innovation and its effect on firm performance and workers' well-being (section 5.3). Three relevant case studies – dealing with Yuhan-Kimberly in Chungju, the LG Smart Park in Changwon and the steelmaker POSCO – are presented in section 5.4, while section 5.5 discusses the Government's policies on workplace innovation. In the concluding section we offer for consideration some intriguing policy implications as to whether and how human-centred work systems could survive in competition with technology- and management-driven systems and bring about a virtuous circle of high labour productivity and decent employment in non-Western countries, where an authoritarian style of corporate governance and management predominates, as in the Republic of Korea.

² Workplace innovation is likewise an official policy in the European Union, where the European Workplace Innovation Network was created in 2013 to disseminate its version of human-centred workplace innovation in the face of the digital revolution (Oeij, Rus and Pot 2017).

► 5.2. Review of the literature on labour productivity and workplace innovation

Labour productivity, typically defined as real output per hour worked, is a measure of how efficiently labour is used in producing goods and services (Brill et al. 2017). Increasing labour productivity is recognized as the core precondition for improving organizational performance and employee well-being at the firm level and as a key driver of economic growth, job creation and social prosperity (Oeij et al. 2019; ILO 2021). Labor productivity growth at the macro level is attributed to a variety of factors such as technological advances, increased capital investment, efficient utilization of productive capacity and resources, increased use of intermediate inputs, improved managerial skills or organization of production, and enhanced skills of the workforce. Enhancement of labour productivity at the workplace level can be explained simply in terms of two types of work innovation – technological and non-technological. While the former refers to changing the technical components of the production system by investing capital and adopting new technologies, non-technological innovation denotes collaboratively adopted changes in work organization and HRM practices that lead to improved operational and human performance (Totterdill 2010). A series of studies dealing with human relations, sociotechnical systems, the resource-based view of the firm and high-performance work systems have consistently underscored that technological innovation should be complemented by and integrated with non-technological innovation (Oeij, Rus and Pot 2017; Rus et al. 2019).

Several different terms have been used in discussing non-technological approaches to work innovation, such as high-performance work systems, high-involvement work practices, high-commitment employment practices, innovative work organization, social innovation in work systems or at the workplace, employee-driven innovation and workplace innovation. All these approaches commonly put a premium on employee involvement and effective utilization of human talents within a firm, primarily by (re)designing the organization of work and tasks to enable people to be smarter and more creative (Rus et al. 2019). The link made between decent work and productivity in the ILO Centenary Declaration for the Future of Work (ILO 2019) fits in with such non-technological innovation.

For the past three decades, the high-performance work system (HPWS) has been a very popular concept used to represent non-technological innovation. In that regard, the literature on workplace innovation has largely sought to shed light on the practices that constitute such a system, how those practices affect organizational performance and employee well-being, and what factors influence the functioning of an HPWS. Table 5.1 gives an idea of the great diversity in the components of an HPWS as identified in existing studies, with the number of components ranging from 6 (Evans and Davis 2005) to 27 (Gamage 2013). An HPWS is assumed above all to have the combined objective of improving organizational performance and quality of working life (Oeij, Rus and Pot 2017). The effect of the various components of such a system on firm performance and workers' well-being, whether individually or synergistically through "bundling", has accordingly been examined in these studies. However, there is but a weak consensus in the literature as to the meaningful impact that HPWSs can have on workplace performance, particularly on employee well-being (Boxall and Purcell 2007; Della Torre and Solari 2013). Key factors in ensuring the success of an HPWS include senior managers' commitment to strategic HRM and a supportive leadership style on their part, government policies to promote workplace innovation, and cooperation of the trade unions. Conversely, major barriers to the good functioning of an HPWS are senior managers' technocentric view of workplace innovation, top-down autocratic leadership, lack of know-how with regard to workplace innovation, and a piecemeal or incrementalist approach to such a system (Chang, Wang and Cui 2019; Rus et al. 2019).

► **Table 5.1. Overview of the components of a high-performance work system**

Study	Components of an HPWS
United States, Department of Labor (1993)	(1) Extensive recruitment and selection process; (2) training procedure; (3) formal information-sharing; (4) attitude assessment; (5) job design; (6) grievance procedures; (7) labour-management participation programme; (8) performance appraisal; (9) promotion; (10) incentive compensation system based on merit.
Huselid (1995)	(1) Extensive recruitment; (2) selection and training procedures; (3) formal information-sharing; (4) attitude assessment; (5) job design; (6) grievance procedures; (6) labour-management participation programmes; (7) performance appraisal; (8) promotion; (9) incentive compensation systems.
Pfeffer (1998)	(1) Employment security; (2) selective hiring; (3) self-management teams and empowering; (4) performance-based compensation; (5) extensive training; (6) reduced status distinctions; (7) information-sharing.
Ahmad and Schroeder (2003)	(1) Employment security; (2) selective hiring; (3) self-managed teams; (4) use of compensation contingent on organizational performance; (5) extent of training; (6) reduced status distinctions; (7) information-sharing.
Sung and Ashton (2005)	(1) Annual appraisal; (2) formal feedback on job performance from superiors/employers; (3) formal feedback on job performance from customers/clients; (4) reviewing vacancies in relation to business strategy; (5) formal assessment tools for recruitment; (6) annual review of employees' training needs; (7) continuous skills development programmes; (8) training to perform multiple jobs; (9) structured induction training; (10) work (re)design for improved performance; (11) workforce diversity for competitive edge; (12) mentoring; (13) quality assurance (e.g. ISO9000 or other similar schemes); (14) business excellence model or equivalent; (15) performance pay; (16) profit-sharing; (17) flexible job descriptions; (18) flexible working (e.g. hours, locations, job-sharing); (19) job rotation; (20) family-friendly policies; (21) non-pay benefits (e.g. free meals, gifts or health packages); (22) share options for employees.
Evans and Davis (2005)	(1) Staffing; (2) self-managed teams; (3) decentralized decision-making; (4) training; (5) flexible work assignment; (6) communication.

Frenkel and Lee (2010) (1) Employment security; (2) teams; (3) job enrichment; (4) worker participation; (5) training; (6) information-sharing; (7) sharing of gains.

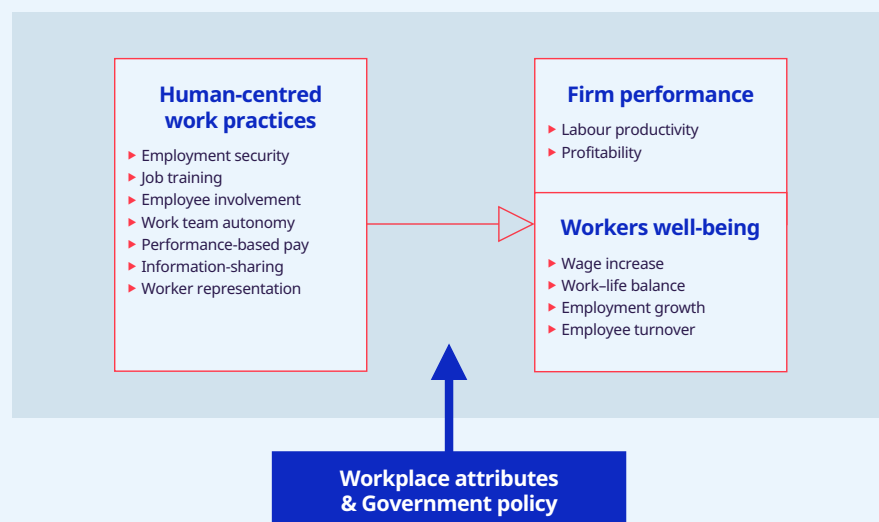
Garage (2013) (1) Job design; (2) merit-based promotions; (3) selectivity in hiring; (4) formal training; (5) job security; (6) performance appraisal; (7) development appraisal; (8) rewards; (9) symbolic egalitarianism; (10) empowerment; (11) employee participation; (12) flexible time schedules; (13) working as teams; (14) formal grievance procedure; (15) formal communication; (16) performance-based pay; (17) family-friendly policy; (18) coaching; (19) high wages; (20) career planning and advancement; (21) information-sharing; (22) meetings; (23) induction; (24) recognition; (25) quality circles; (26) job rotation; (27) attitude survey.

The human-centred approach to enhancing workplace productivity is a way of building an HPWS that is suitable for improving both the firm's organizational achievement and employees' working life by ensuring and promoting talent utilization and participatory involvement in the workplace. Borrowing the Weberian concept of an "ideal type" (Weber 1949), a human-centred work system can be conceptualized as a systemic bundling of post-Taylorist work practices to accentuate the significance of workers' human value and potential in work organization and HRM. Human-centred work practices, which embody the human-centred approach at work, comprise a variety of managerial policies and/or negotiated programmes to increase workers' employment security, motivate them to upskill, give them a stronger voice, and promote their accountable autonomy.

Drawing on the above literature review, we developed an analytical model to examine the current state and workplace-level impact of human-centred work practices in the Republic of Korea (see figure 5.3). Seven practices – employment security, job training, employee involvement, work team autonomy, performance-based pay, information-sharing and worker representation – were chosen on the basis of the theoretical justification and empirical evidence, and after checking that suitable data were available. Four of these, namely employment security, job training, performance-based pay and information-sharing, are part of a firm's HRM policy to encourage workers' interest in upskilling, economic motivation and organizational commitment, while the other three, that is, employee involvement, work team autonomy, and worker representation, have to do with work organization and shop-floor

labour-management relations and are intended to ensure that workers have a voice and are able to participate in productive processes, whether at an individual or a collective level. These seven human-centred work practices are expected to improve both firm performance and workers' well-being. In our empirical analysis, the former is measured by labour productivity and financial profitability, while the latter is assessed using four key indicators: wage growth rate, employment growth rate, work-life balance (as reflected in working hours) and employee turnover rate. In addition, when examining the relationship between such work practices and workplace improvements, it is necessary to consider the influence of workplace attributes – notably the size and composition of the workforce by age, the use of non-regular labour and subcontracting, whether a firm is a multi-establishment enterprise, unionization, targets and competition on the product market, and the level of automation – and government policy.

▶ **Figure 5.3. Analytical model of human-centred work practices in the Republic of Korea**



▶ 5.3. Empirical analysis of human-centred work practices and their impact on firm performance and workers' well-being

In this section, we examine trends in, and the current state of, human-centred work practices in the Republic of Korea, and analyse their effects on firm performance, measured by labour productivity and profitability, and workers' well-being, measured by wage growth rate, employment growth rate, working hours and employee turnover rate. Panel data models with fixed effects were run using data from the Workplace Panel Survey covering 2007–19.

5.3.1. Data

The Workplace Panel Survey has been conducted every two years by the Korea Labor Institute between 2006 (wave 1) and 2020 (wave 8). Personnel specialists, labour relations experts and worker representatives are the main respondents in this survey, which is carried out using computer-assisted personal interviewing. The target population covers all the industries, except for agriculture, forestry, fishing and mining. Based on the sampling frame used by Statistics Korea for the National Enterprise Survey, the samples in the Workplace Panel Survey are stratified according to industry, firm size and geographical location. The sample size was between 1,700 and 1,800 workplaces for waves 1–5 and increased to around 3,000 for waves 6–8. The data from the first wave did not include information for some variables required in our analytical model, so we had to use the panel data from waves 2–8. After excluding observations with missing

variables, the sizes of the samples in our analysis are as follows: 1,701 in 2007, 1,687 in 2009, 1,715 in 2011, 1,711 in 2013, 3,380 in 2015, 2,860 in 2017 and 2,644 in 2019. Given that the sample sizes vary across the waves because of sample attrition and replacement, and that there was a big increase from wave 6 onwards, unbalanced panel data are used in our empirical analysis.

5.3.2. Trends and distribution of human-centred work practices

For our analysis we created a human-centred workplace (HCW) score based on the seven aforementioned human-centred work practices: (a) employment security; (b) job training; (c) performance-based pay; (d) information-sharing; (e) employee involvement; (f) work team autonomy; and (g) worker representation. Employment security is measured as the mean value of two sub-items: no managerial lay-off action (if no = 1; if yes = 0) and whether a job security policy or agreement is in place (if yes = 1; if no = 0). Job training is likewise measured as the mean value of two sub-items: whether multi-skills training is provided (if yes = 1; if no = 0) and whether the number of training hours exceeds the sample average (if yes = 1; if no = 0). The indicator for performance-based pay ranges from 0 to 1 and is calculated by estimating how many are implemented out of the five following variable pays: individual performance-based pay, skills-based pay, profit-sharing, gainsharing and employee stock purchase plans. Information-sharing is measured as the mean ratio of how many are offered out of the four following communication-related options: direct communication with the CEO, business information-sharing practices, online and offline communication channels, and worker voice practices. Employee involvement is measured as the mean ratio of how many are implemented out of the five following participatory work practices: total productive maintenance, total quality control, employee suggestion system, worker group activities and self-managed operation. These questions were surveyed in the form of six-point Likert scales, which we simplified to categorical measurements using the criterion of whether some of the workers' voices are reflected in the final decision-making (if yes = 1; if no = 0). Work team autonomy is measured as the mean value of work teams' discretion over six operational matters: work plans, work schedules, work methods, work speed, staffing of new members, and training of team members. These were surveyed in the form of four-point Likert scales, which we subsequently converted to

categorical variables using the criterion of whether the work team has discretion over each item (if yes = 1; if no = 0). Worker representation is measured as the mean value of worker representatives' participation in negotiation and/or consultation with senior management on corporate plans concerning the adoption of new technologies, work processes, employee training, spin-offs or outsourcing, and redundancy. Finally, HCW scores were calculated by adding up the values of the seven indicators related to human-centred work practices.

Figure 5.4 displays the evolution of HCW scores among workplaces in the Republic of Korea during 2007–19. In view of the large increase in the sample size in 2015, weighted mean values were used. As can be seen in the figure, the scores lie mostly between 2.0 and 2.5 (out of a maximum of 7 points). It is also worth noting that the score has been declining during the 2010s, from 2.5 in 2011 to 2.1 in 2019. The score dropped in 2009, probably because of the global financial crisis, and picked up again in 2011, but thereafter it has been falling gradually.

► **Figure 5.4. Human-centred workplace score of firms in the Republic of Korea, 2007–19 (average)**

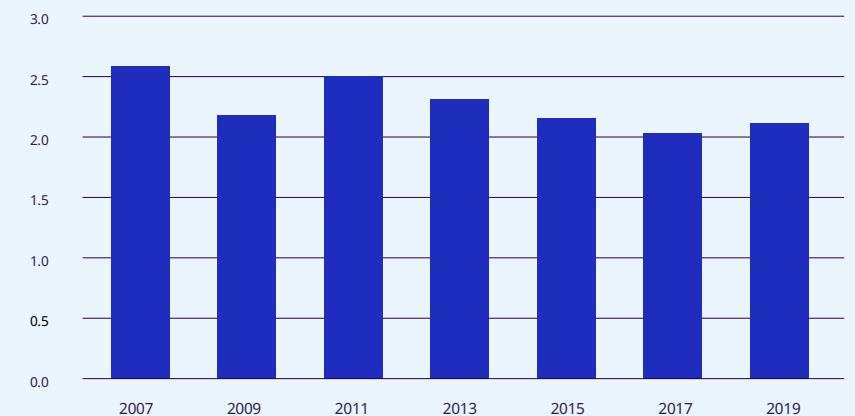


Figure 5.5 shows the evolution of the individual scores for each of the seven human-centred work practices during 2007–19. The scores for work team autonomy and employment security are consistently much higher than the others. This may reflect certain aspects of traditional shop-floor labour-management relations in the Republic of Korea, namely that substantial discretion is given to foremen in the organization of work and that managers have been requested to assume their responsibility for guaranteeing employees’ job security, albeit in the era of flexible employment relations. Except for worker representation, whose score increased slightly from 0.229 to 0.253, the individual scores for all human-centred work practices declined during the period in question. In particular, the job training score decreased most sharply from 0.354 to 0.153, accounting for over 40 per cent of the reduction in the aggregate HCW score over that period. This implies that, as far as HRM policy is concerned, many of the country’s firms have to a certain extent switched from the traditional “making” model to a “buying” one, as evidenced by the drastic reduction in their human resource development activities.

► Figure 5.5. Prevalence of selected human-centred work practices among firms in the Republic of Korea, 2007–19 (average scores)

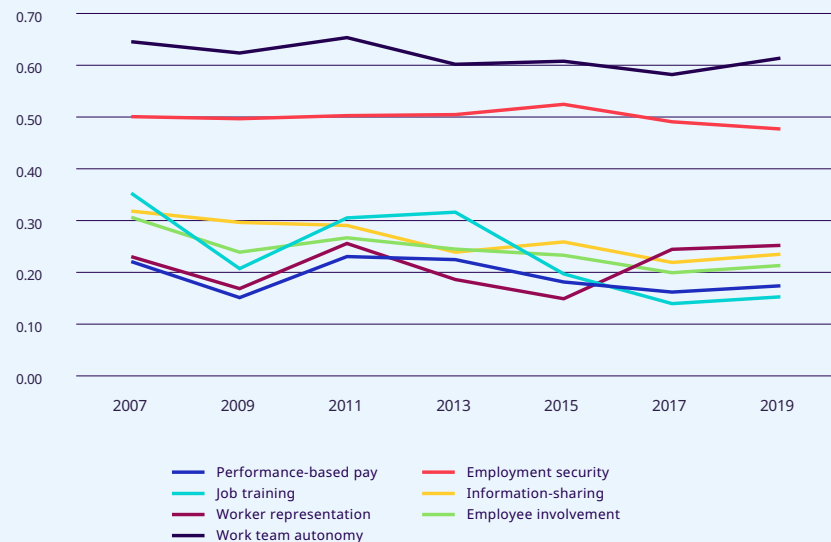


Figure 5.6 shows the distributions of aggregate HCW scores by firm size, for which the following categories were used: “small” = fewer than 300 employees; “medium” = 300–1,000 employees; and “large” = more than 1,000 employees. Large firms generally had higher HCW scores than medium-sized and small firms during 2007–19 (except in 2017). It is also worth noting that the HCW scores of firms of all sizes have been declining since 2011, albeit with a small rebound in 2019. The drop in the HCW score at large firms, in particular, has been remarkable: between 2011 and 2019 it decreased by 0.674 points for large firms, a considerably greater decline than for medium-sized firms (–0.441) and small firms (–0.354). The narrowing gap in the distribution of HCW scores by firm size implies a tendency to move away from human-centredness in workplaces in the Republic of Korea over the past decade.

► Figure 5.6. Prevalence of selected human-centred work practices among firms in the Republic of Korea, by firm size, 2007–19 (average scores)

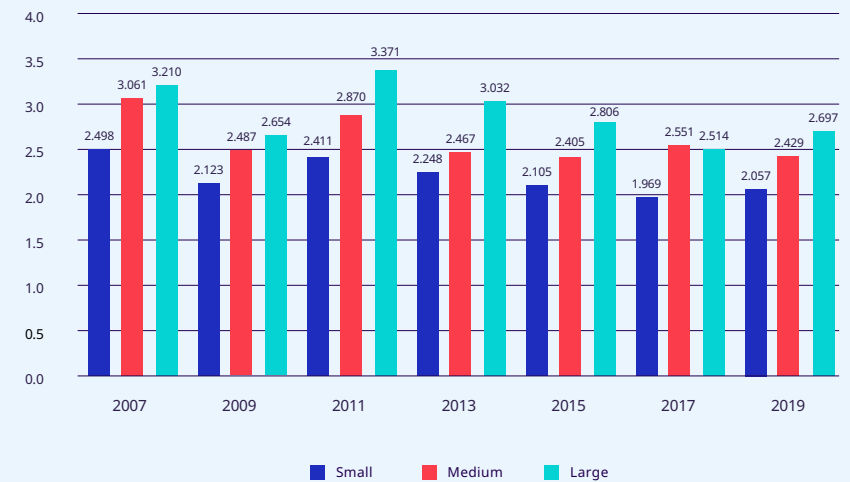
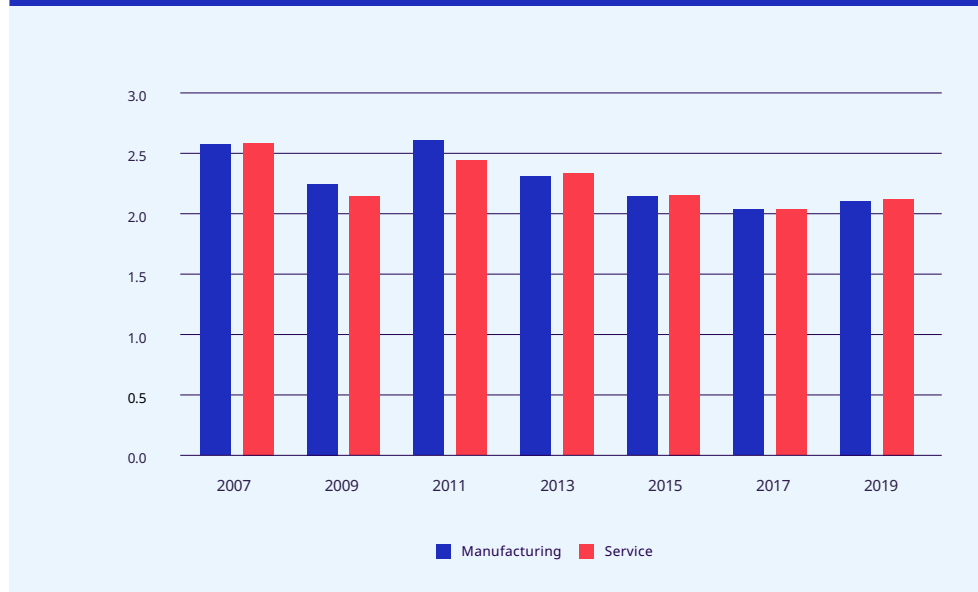
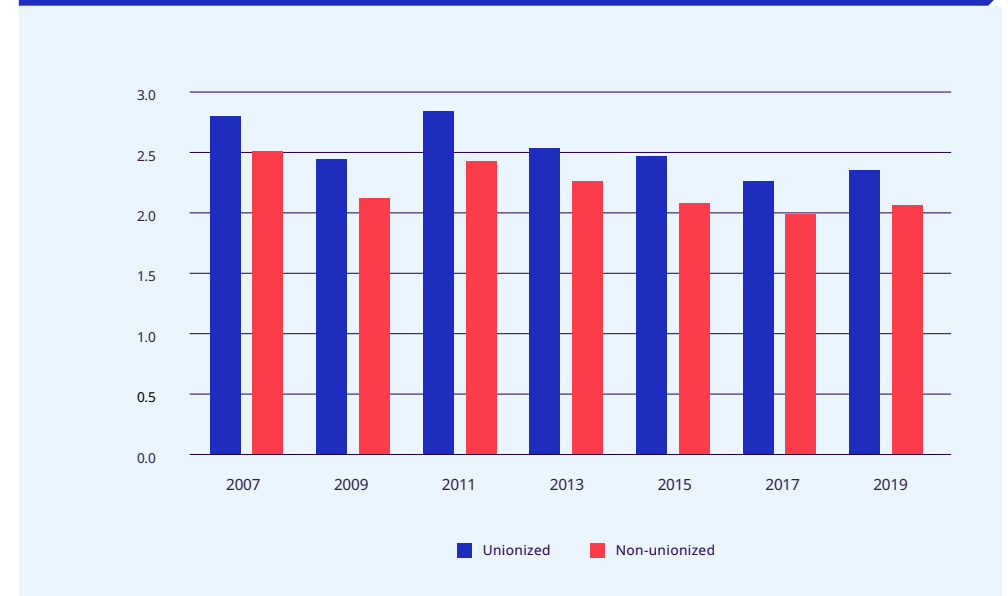


Figure 5.7 shows the distribution of aggregate HCW scores by sector, specifically comparing the manufacturing and service sectors. As can be seen, there is little difference in the scores of the two sectors. The downward trend over the period 2007–19 is also similar for both sectors. From figure 5.8, which presents the distribution of aggregate HCW scores by union status, it emerges that unionized workplaces have higher scores than non-unionized ones. This distribution may be affected by firm size because larger firms are much more likely to be unionized in the Republic of Korea. As for trends over the period 2007–19, it may be observed that the HCW scores in unionized and non-unionized workplaces have been declining at a similar rate.

► Figure 5.7. Human-centred workplace score of firms in the Republic of Korea, by sector, 2007–19 (average)



► Figure 5.8. Human-centred workplace score of firms in the Republic of Korea, by union status, 2007–19 (average)



The descriptive statistics presented above point to a downward trend of HCW scores over the past decade. Job training is the human-centred work practice whose prevalence has decreased the most, though all the practices studied are declining except for worker representation. Significantly, large companies made the greatest contribution to these declining trends – something that may be explained by such changes as an ageing workforce, the growing use of non-regular workers and the increasing use of new digital technologies. It may be conjectured that lower union density is not an important factor underlying these downward trends, since they are displayed by unionized and non-unionized firms alike and the individual score for worker representation has not declined. In order to determine which factors influence HCW scores and the adoption of human-centred work practices, we perform two regression analyses covering key workplace attributes, such as firm size, presence of a trade union, sales per capita (one-year lagged data), automation rate, shares of contingent workers and age groups, export rate, use of subcontracting and market competition (see table 5.2). Panel-data regression models with individual and time-fixed effects are used. Since information on the age distribution became available in the Workplace Panel Survey data for 2015–19, two age-group variables could be tested in the second regression model, as shown in column [2] of table 5.2.

The results of the regression analysis presented in the table indicate that presence of a trade union, the proportions of contingent workers and young employees (those aged 35 years or below), export rate and market competition all have a significantly positive effect on HCW scores, while sales per capita has a weakly positive effect. At the same time, it is noteworthy that the share of senior employees (those aged 55 years or more) has a significantly negative effect on HCW scores, while the use of subcontractors has a negative impact in the second regression model. Our regression analysis suggests that human-centred work practices are more likely to be implemented at workplaces with the following attributes: competitive product/service market, greater reliance on exports or overseas sales, higher automation, unionization, higher labour productivity, younger workforce and less use of subcontracting.

► **Table 5.2. Determinants of the human-centred workplace score of firms in the Republic of Korea: Results of regression analysis**

Independent variables	Dependent variable = HCW score	
	[1] (N = 3 450, Avg. T = 2.7)	[2] (N = 2 814, Avg. T = 2.1)
Constant	1.922 (0.254)	1.578 (0.320)
Ln (employment)	0.041 (0.034)	-0.003 (0.044)
Presence of a trade union	0.129* (0.078)	0.243** (0.109)
Sales per capita (t - 1)	0.038* (0.019)	0.039^ (0.026)
Automation rate	0.003*** (0.001)	0.002** (0.001)
% of contingent workers	0.002** (0.001)	0.002* (0.001)
% of workers aged ≤ 35 yr	n/a	0.002** (0.001)
% of workers aged ≥ 55 yr	n/a	-0.003*** (0.001)
Export rate	0.028*** (0.001)	0.002* (0.001)
Use of subcontractors	0.012 (0.033)	-0.071* (0.043)
Market competition	0.039** (0.016)	0.092*** (0.021)
R ²	0.155	0.115
Time period	2007–19 (biannual)	2015–19 (biannual)

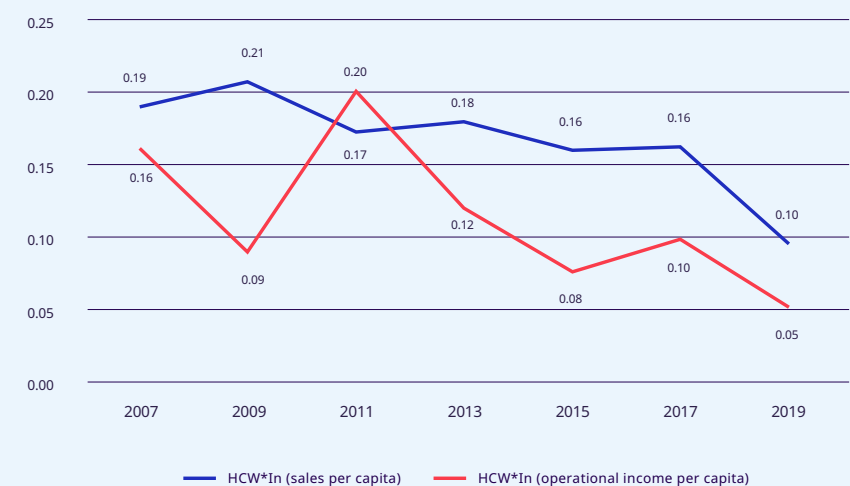
^ $p < 0.10$ (one-tailed); * $p < 0.10$ (two-tailed); ** $p < 0.05$ (two-tailed); *** $p < 0.01$ (two-tailed)
n/a = data not available.

Note: Avg. T = average wave (see subsection 5.3.1) of panel data analysed; Automation rate = proportion of work processes that are automated; Export rate = share of exports in total sales; Use of subcontractors = whether firm uses a subcontractor; Market competition = 5-point Likert scale gauging severity of market competition faced by firm.

5.3.3. Empirical analysis of the effect of HCW scores on firm performance and employee well-being

Figure 5.9 shows the results of analysing the correlation between HCW score and firm performance. We use two indicators of firm performance, which are estimated by using the natural logarithm of sales per capita and operating income per capita as proxies for labour productivity and profitability, respectively. As can be seen in the figure, the correlation coefficients between HCW score and firm performance are positive and statistically significant for most of the years surveyed. In particular, the correlation coefficients between HCW score and sales per capita are higher than the coefficients between HCW score and operating income per capita during the entire period (except for 2011). It is also remarkable that the two correlation coefficients have steadily decreased over the past decade (the 2010s). That may explain why the aggregate HCW score for firms in the Republic of Korea has been declining since 2011. At the same time, we need to analyse the correlations more rigorously using regression analyses to arrive at a more conclusive explanation.

► **Figure 5.9. Correlation between human-centred workplace score and firm performance, Republic of Korea, 2007–19**



Note: The vertical axis shows the correlation coefficient.

To examine the impact of the HCW score on labour productivity and business profitability as metrics of firm performance, we estimate panel data models with fixed effects based on a Cobb-Douglas production function by regressing the natural logarithm of GDP-deflated sales per capita and GDP-deflated operating income per capita on HCW scores. A fixed-effects model is used to control for time-invariant variables and to set the baseline of labour productivity and profitability, which vary across firms. Such a model can control for omitted variables bias, thereby giving more unbiased estimates than a random-effects model.³ As can be seen in table 5.3, the HCW score has a significantly positive effect on GDP-deflated sales per capita at $\alpha = 0.05$ and on GDP-deflated operating income per capita at $\alpha = 0.10$.

► **Table 5.3. Effect of human-centred workplace score on firm performance in the Republic of Korea: Results of regression analysis**

Independent variables	Ln (GDP-deflated sales per capita)	Ln (GDP-deflated operating income per capita)
	[1] (N = 3 786, Avg. T = 3.0)	[2] (N = 3 718, Avg. T = 2.9)
Constant	5.392 (0.089)	1.113 (0.579)
HCW score	0.013** (0.006)	0.053* (0.029)
Presence of a trade union	0.032 (0.034)	-0.094 (0.168)
Ln (tangible assets per capita)	0.154*** (0.006)	0.025 (0.031)
Working hours per week	0.000 (0.001)	0.003 (0.004)
Ln (employment)	-0.096*** (0.014)	0.014 (0.068)
Ln (labour cost per capita)	n/a	0.186* (0.103)
% of contingent workers	-0.000 (0.000)	-0.001 (0.002)
Export rate	0.000 (0.000)	-0.005*** (0.002)

³ We also estimated random-effects models, obtaining results that imply a much higher level of statistical significance.

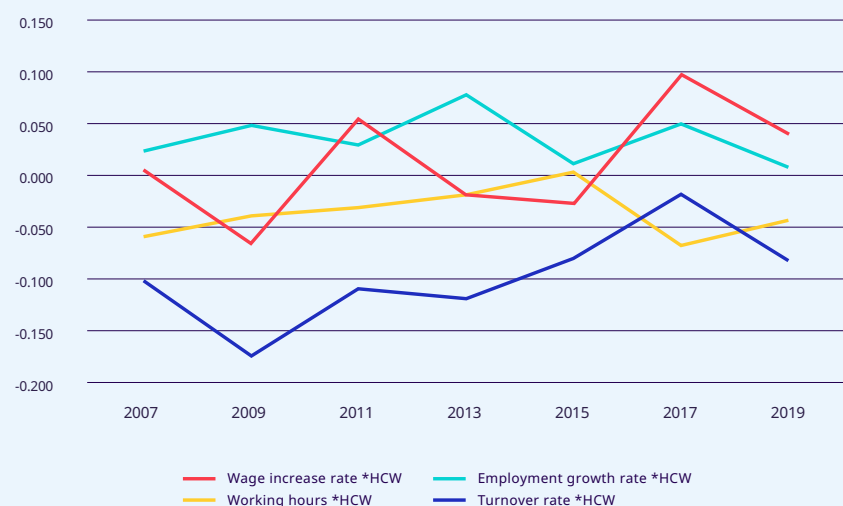
Independent variables	Ln (GDP-deflated sales per capita)	Ln (GDP-deflated operating income per capita)
	[1] (N = 3 786, Avg. T = 3.0)	[2] (N = 3 718, Avg. T = 2.9)
Use of subcontractors	-0.011 (0.015)	-0.045 (0.073)
Market competition	-0.018** (0.007)	-0.064* (0.034)
Multi-establishment	0.031^ (0.022)	-0.191* (0.111)
R ²	0.281	0.017

^ $p < 0.10$ (one-tailed); * $p < 0.10$ (two-tailed); ** $p < 0.05$ (two-tailed); *** $p < 0.01$ (two-tailed)
n/a = data not available.

Note: Avg. T = average wave (see subsection 5.3.1) of panel data analysed; Export rate = share of exports in total sales; Use of subcontractors = whether firm uses a subcontractor; Market competition = 5-point Likert scale gauging severity of market competition faced by firm; Multi-establishment = whether firm has several establishments.

Let us now consider the relationship between the HCW score and employee well-being. Three indicators, namely wage growth rate, employment growth rate and working hours, were chosen as dependent variables measuring workers' well-being. Moreover, employee turnover rate was included as an additional dependent variable because it is typically regarded as a behavioural indicator closely related to workers' job satisfaction or organizational commitment. Figure 5.10 shows the trends in the correlation coefficients between the HCW score and the four variables representing workers' well-being. The correlation coefficients for wage and employment growth rates fluctuate and only some of them are statistically significant, which casts doubt on whether there is a steady correlation between the HCW score and those two variables. In particular, employment growth rate and the HCW score are not correlated with each other in more than half of the years. The correlation coefficients between the HCW score and working hours and turnover rate are negative. The coefficients for working hours are more significant in the years 2007–09 and 2017–19, when the shift to a standard working week of 40 hours and the introduction of a 52-hour maximum working week were enacted and implemented, respectively. Finally, it emerges that employee turnover correlates significantly with the HCW score throughout the period in question.

► Figure 5.10. Correlation between human-centred workplace score and indicators of employee well-being, Republic of Korea, 2007–19



Note: The vertical axis shows the correlation coefficient.

We estimated fixed-effects regression models to investigate the effect of a firm's HCW score on workers' well-being in terms of wage growth rate, employment growth rate, working hours and turnover rate. We also used random-effects models, but the results are so similar to those of the fixed-effects models that they are not reported here. Table 5.4 presents the results of regression analysis concerning the effect of the HCW score on wage and employment growth rates. Columns [1] and [2] show the estimates for the wage effect of the HCW score without and while controlling for the natural logarithm of sales per capita respectively, while columns [3] and [4] report the estimates for the employment effect of the HCW score. The findings indicate that the HCW score has significantly positive effects on both wage growth and employment growth rates. It is worth noting that the HCW score has an impact on wage growth as well as employment growth even after controlling for sales per capita, which is a measure of labour productivity. This implies that the HCW score probably influences the two indicators of employee well-being by a mechanism other than through its labour productivity effect (that is, without the mediating effect of labour productivity).

► Table 5.4. Effect of human-centred workplace score on wage and employment growth rates in the Republic of Korea: Results of regression analysis

Independent variables	Dependent variables			
	Wage growth rate		Employment growth rate	
	[1] (N = 3 320, Avg. T = 2.6)	[2] (N = 3 318, Avg. T = 2.6)	[3] (N = 3 369, Avg. T = 2.7)	[4] (N = 3 367, Avg. T = 2.7)
Constant	4.086 (0.795)	3.647 (0.945)	-29.416 (6.366)	-30.110 (6.810)
HCW score	0.225*** (0.046)	0.225*** (0.046)	0.936*** (0.287)	0.938*** (0.287)
Presence of a trade union	-0.136 (0.280)	-0.159 (0.281)	-0.154 (1.729)	0.035 (1.735)
Ln (sales per capita)	n/a	0.091 (0.095)	n/a	0.039 (0.634)
Ln (tangible assets per capita)	-0.099* (0.053)	-0.113** (0.055)	-0.328 (0.334)	-0.345 (0.346)
Automation rate	0.001 (0.002)	0.001 (0.002)	0.005 (0.013)	0.005 (0.013)
Working hours per week	0.009^ (0.006)	0.010^ (0.006)	0.013 (0.040)	0.012 (0.040)
Ln (employment)	0.060 (0.118)	0.059 (0.118)	8.205*** (0.721)	8.256*** (0.724)
Ln (labour cost per capita)	n/a	n/a	-3.887*** (1.116)	-3.828*** (1.150)
% of contingent workers	0.000 (0.003)	0.000 (0.003)	0.011 (0.021)	0.012 (0.021)
Export rate	0.009*** (0.003)	0.009*** (0.003)	-0.011 (0.016)	-0.011 (0.016)
Use of subcontractors	-0.048 (0.119)	-0.047 (0.119)	-0.333 (0.734)	-0.332 (0.735)
Market competition	0.005 (0.055)	0.009 (0.056)	0.092 (0.346)	0.086 (0.347)
Multi-establishment	-0.248^ (0.187)	-0.255^ (0.187)	2.729** (1.183)	2.773** (1.185)
R ²	0.026	0.023	0.003	0.003

^ $p < 0.10$ (one-tailed); * $p < 0.10$ (two-tailed); ** $p < 0.05$ (two-tailed); *** $p < 0.01$ (two-tailed)
n/a = data not available.

Note: Avg. T = average wave (see subsection 5.3.1) of panel data analysed; Automation rate = proportion of work processes that are automated; Export rate = share of exports in total sales; Use of subcontractors = whether firm uses a subcontractor; Market competition = 5-point Likert scale gauging severity of market competition faced by firm; Multi-establishment = whether firm has several establishments.

The results of regression analysis regarding the effect of the HCW score on working hours are presented in table 5.5. Column [1] presents the estimate for the model without controlling for the natural logarithm of sales per capita as a proxy for labour productivity, whereas column [2] presents the estimate while controlling for labour productivity. The results indicate that the HCW score has a significantly negative effect on working hours, regardless of whether labour productivity is controlled for or not.

► **Table 5.5. Effect of human-centred workplace score on working hours: Results of regression analysis**

Independent variables	Dependent variable = working hours per week	
	[1] (N = 3 369, Avg. T = 2.7)	[2] (N = 3 367, Avg. T = 2.7)
Constant	50.324 (2.039)	49.484 (2.199)
HCW score	-0.229** (0.097)	-0.229** (0.097)
Presence of a trade union	-1.081* (0.583)	-1.048* (0.585)
Ln (sales per capita)	n/a	0.187 (0.214)
Ln (tangible assets per capita)	-0.013 (0.113)	-0.040 (0.117)
Automation rate	0.002 (0.004)	0.002 (0.004)
Working hours per week	0.165 (0.243)	0.191 (0.244)
Ln (employment)	-0.860** (0.376)	-0.923** (0.388)
% of contingent workers	-0.015** (0.007)	-0.015** (0.007)
Export rate	0.006 (0.006)	0.006 (0.006)
Use of subcontractors	0.104 (0.248)	0.107 (0.248)
Market competition	0.009 (0.117)	0.011 (0.117)
Multi-establishment	-0.808** (0.399)	-0.805** (0.399)
R ²	0.008	0.008

^ $p < 0.10$ (one-tailed); * $p < 0.10$ (two-tailed); ** $p < 0.05$ (two-tailed); *** $p < 0.01$ (two-tailed)
n/a = data not available.

Note: Avg. T = average wave (see subsection 5.3.1) of panel data analysed; Automation rate = proportion of work processes that are automated; Export rate = share of exports in total sales; Use of subcontractors = whether firm uses a subcontractor; Market competition = 5-point Likert scale gauging severity of market competition faced by firm; Multi-establishment = whether firm has several establishments.

Finally, the results of regression analysis concerning the effect of the HCW score on employee turnover rate are summarized in table 5.6. It is notable that the estimate for the HCW score has a negative sign, though only with statistical significance at $\alpha = 0.10$ (one-tailed), indicating that a firm's HCW score is negatively correlated with the turnover rate, which reflects employees' job satisfaction and organizational commitment, albeit to a weak degree.

► **Table 5.6. Effect of human-centred workplace score on employee turnover rate: Results of regression analysis**

Independent variables	Dependent variable = employee turnover rate
	N = 3 427, Avg. T = 2.7
Constant	40.075 (7.118)
HCW score	-0.560^ (0.425)
Presence of a trade union	0.267 (2.549)
Ln (tangible assets per capita)	1.112** (0.477)
Automation rate	-0.021 (0.019)
Working hours per week	0.115** (0.058)
Ln (employment)	-6.137*** (1.057)
% of contingent workers	0.051* (0.030)
Export rate	0.031^ (0.024)
Use of subcontractors	0.212 (1.088)
Market competition	0.276 (0.506)
Multi-establishment	-0.133 (1.730)
R ²	0.008

^ $p < 0.10$ (one-tailed); * $p < 0.10$ (two-tailed); ** $p < 0.05$ (two-tailed); *** $p < 0.01$ (two-tailed).

Note: Avg. T = average wave (see subsection 5.3.1) of panel data analysed; Automation rate = proportion of work processes that are automated; Export rate = share of exports in total sales; Use of subcontractors = whether firm uses a subcontractor; Market competition = 5-point Likert scale gauging severity of market competition faced by firm; Multi-establishment = whether firm has several establishments.

In summary, our empirical analysis confirms that human-centredness in workplaces has a statistically significant positive effect both on firm performance, measured by productivity and profitability, and on such indicators of workers' well-being as wage growth rate, employment growth rate, working hours and employee turnover rate (the last of these to a weak degree). The results imply that a human-centred work model provides mutual gains for both sides – management and workers. It is also noteworthy that, as shown in table 5.2, labour productivity, measured by sales per capita, is positively correlated with the HCW score, that is, with the adoption of human-centred work practices. This may offer a meaningful indication that human-centredness and labour productivity constitute a virtuous circle to enhance firm performance and workers' well-being.

Why, then, has the HCW score been declining during the 2010s if the adoption of human-centred work practices is observed to have a positive influence on both firm performance and workers' well-being? This paradox can be explained by the fact that the profitability of firms in the Republic of Korea in terms of operating income has deteriorated over the past decade, as well as by the results of regression analysis showing that the correlation between HCW score and firm performance has weakened during this period. These are trends that need to be examined further by looking at the contextual challenges faced by the country's firms, notably the pressure exerted by China's economic catch-up, digital technological innovation (also referred to as the "fourth industrial revolution"), the pursuit of carbon neutrality to comply with global standards, a rapidly ageing population, and persistent confrontation between labour and management.

► 5.4. Case studies of human-centred workplaces in the Republic of Korea

Adopting a case-study approach in this section, we discuss three examples of human-centred workplaces in the Republic of Korea: Yuhan-Kimberly in Chungju (a plant manufacturing personal care products), LG Electronics in Changwon (several plants manufacturing home appliances and air conditioning systems) and POSCO (integrated steel manufacturing plants). For basic information on the three companies, see table 5.7. The high-performance work models at Yuhan-Kimberly and POSCO are more or less based on intensive job training, while LG Electronics has a focus on workplace innovation under a labour-management partnership. All three companies have established themselves as business leaders in their respective sectors, and they are also well known for developing their HPWS over the past decades as an essential source of their competitive advantage and a precondition for a good labour-management partnership. For our case studies we drew on the existing research literature dealing with the HPWS of those three companies and carried check interviews with human resources and operational managers who are responsible for workplace innovation at each company.⁴

⁴ It would not have been possible to study recent developments in workplace innovation at the three companies without interviewing these managers. We are therefore most grateful for their cooperation.

► Table 5.7. Basic information on the three companies in the case studies

	Yuhan-Kimberly in Chungju	LG Electronics in Changwon	POSCO
Corporate foundation and ownership	Founded as a joint venture with Yuhan in 1970, but taken over by Kimberly-Clark	Founded in 1958, and now a member of the LG Corporation	Founded as a state-owned company in 1968, and privatized in 2000
Products	Personal care products	Refrigerators, water purifiers, washing machines, air conditioners, vacuum cleaners	Steel
Competitiveness	No. 1 manufacturer in the Republic of Korea	World-class competitor Selected as a "Lighthouse Factory" in 2022	World-class competitor Selected as a "Lighthouse Factory" in 2019
Union status	Unionized in 1994	Unionized in 1963	Unionized in 1988; after the original union had shrunk to become a minority union, multiple unions were organized in 2018
Prior corporate culture	Weakly paternalistic + people-respecting	Hierarchical + interpersonal-harmony-oriented	Paternalistic + authoritarian

Note: "Lighthouse Factories" are designated by the World Economic Forum and McKinsey & Company. This award seeks to recognize the world's most advanced factories, which are leading the way in the adoption of technologies that underpin the "fourth industrial revolution".

5.4.1. Yuhan-Kimberly in Chungju

The Chungju plant of Yuhan-Kimberly, which was relocated from Gunpo in 2010, began adopting human-centred work practices in 1996, in response to a business crisis faced by the company. The sales performance of Yuhan-Kimberly had dropped sharply during the early 1990s, owing to the market entry of a global competitor, Procter & Gamble. Moreover, workers had set up a labour union in 1994 and went on strike against wage cuts and employment insecurity in 1996. In resolving the labour dispute, the union and management reached an agreement to change the work shift scheme as an alternative to avoid lay-offs, provide more training hours and adopt a skills-based pay plan. First, the work shift scheme was changed from three teams doing three shifts to four teams doing three shifts (later this became four teams doing two shifts), thereby shortening working hours. In order to compensate for the reduced wages caused by the fewer working hours, management offered workers paid training for at least 16 hours per month. As part of the skills-based pay plan, management and the union agreed to implement a skills grade system, which would afford more job promotion opportunities to production workers. The new human-centred work system was based on that agreement and has been further developed through the partnership between labour and management. Given that such a partnership is critical to the system's success, the Yuhan-Kimberly management institutionalized information-sharing and the participation of union representatives in plant operations to foster mutual trust. As a result, the human-centred workplace in Chungju was effective enough to enhance operational productivity, thereby compensating for workers' reduced wages and guaranteeing their employment security. This HCW model worked so well that it survived even the Asian financial crisis in the late 1990s.

Most of the mutual gains in Yuhan-Kimberly's HCW model arise from extensive job training. For workers, job training is directly linked to pay rises because not only is such training paid with an overtime premium but it also underlies the skills-based pay plan. As far as management are concerned, training has made a valuable contribution to the enhancement of firm performance. Most of the productive facilities at the Yuhan-Kimberly plant are capital-intensive and heavily automated. They are often shut down because of defective products, breakdowns or modifications to products. It is very important that the workers should be able to tackle these problems effectively through maintenance and troubleshooting. It is also important that workers

should have the knowledge to become involved in innovative activities at work, especially in connection with redesigning products and operating methods. The extensive training at Yuhan-Kimberly has helped workers to upgrade their job skills, which is essential so that they can operate the automated equipment more efficiently. Moreover, the training encouraged workers to develop their multitasking competency, allowing them to achieve job enlargement and enrichment.

Yuhan-Kimberly has pursued technological innovation to secure the sustainability of its HCW model. In the mid-2000s, the company introduced new automated machinery and equipment, prompting concerns over redundancy among the union and workers. However, there have been no lay-offs due to the adoption of new technologies, because all the redundant workers were reassigned to other jobs. Subsequent technological innovation at Yuhan-Kimberly has mainly had to do with improvements to the existing automated machinery and equipment with a view to promoting labour productivity, product quality and occupational safety, rather than saving labour. The improvement of production processes requires the active involvement of operators at the workplace as well as engineering technicians. Even without technological innovation, a human-centred work system can enhance firm performance, but such innovation augments the system's positive effect. A potential concern is that technology could displace jobs. However, the experience of Yuhan-Kimberly reveals that a human-centred work system, especially in unionized firms, is likely to prevent human labour from being replaced by automation.

The firm performance of Yuhan-Kimberly kept improving remarkably until the early 2010s, its revenue and profits tripling between 2000 and 2012. Most of its products topped the domestic market by a wide margin. The higher labour costs were offset by better firm performance in terms of labour productivity, equipment utilization, and the minimization of waste and defect products. The company also distinguished itself by its responsiveness to customer needs and ability to devise high-quality premium products. Moreover, the labour-management partnership, built on its HCW model, has been fostered as a way of securing a meaningful competitive advantage.

The human-centred work system at Yuhan-Kimberly has made a notable difference in terms of quality of working life. Its pay levels have been steadily rising, with the average annual pay of production workers reaching around 110 million won (or US\$92,500) in 2021, which puts them in the top wage tier in the country's manufacturing sector.

Yuhan-Kimberly experienced a modest increase in employment size up to the 2000s, with little use of contingent labour. As a result, employees' job satisfaction and organizational commitment are still very high, while the turnover rate is close to zero.

This well-functioning HCW model came under pressure in the 2010s because of tightened product markets, reflecting the country's declining fertility rate and ageing population, even though the company's market share remains very high. In addition, access to overseas markets (in particular, the Chinese market) has been cut short following Kimberly-Clark's decision to restrict exports from the Yuhan-Kimberly plant. The deteriorating market situation was an uncontrollable factor that the human-centred work system could not deal with. While Yuhan-Kimberly still dominates the domestic market, all these challenges caused its sales growth to stagnate during the early 2010s and eventually (after 2015) to turn negative.

The worsened business performance has had a damaging effect on the company's employment level. Yuhan-Kimberly has never embarked on a redundancy or downsizing process in response to technological developments such as automation. Instead, it has transferred or relocated redundant workers in accordance with its "no lay-off" policy. At the same time, it has experienced downsizing through attrition, with no recruitment for production jobs for the last 17 years. The fact that young workers are not being hired is resulting in an ageing workforce, which may exert negative pressure on the company's job training programmes, since senior workers are not familiar with digital production technologies or active in seeking to learn about these. If job training is reduced, the HCW model at Yuhan-Kimberly could be at risk, since training has been the linchpin of firm performance and employee well-being, alongside the labour-management partnership. The amount of training is directly linked to a worker's pay level, which means that obtaining the trade union's consent to reduce training hours is very difficult. Faced with an ageing workforce and a shrinking market, Yuhan-Kimberly has attempted to reduce training hours at its factory in Daejeon, but not at the Chungju plant. In 2020, average training hours at the Chungju plant were temporarily lowered to 4 hours per month because of the COVID-19 pandemic. At the time of writing (2022), however, training time has climbed back to 8 hours per month and sooner or later it will be 16 hours per month again, since the plant management understands clearly that an ageing workforce needs extensive training to cope with the technological innovations that are being incorporated into existing production processes.

5.4.2. LG Electronics in Changwon

The LG Electronics plants in Changwon, also known as the LG Smart Park, began implementing full-blown human-centred work practices in response to two labour disputes that occurred in 1987 and 1989. In particular, the labour dispute of 1989 lasted about 150 days, including a 36-day strike. These disputes had a devastating impact on firm performance, not least reflected in production losses of about 150 billion won, or US\$220.7 million by the 1889 exchange rate. Moreover, LG Electronics lost the top-ranking position in the domestic market for home appliances to Samsung. The labour disputes, led by militant activists and taking the form of wildcat strikes, posed a serious risk to union leadership as well as plant management.

Faced with these disputes and a business crisis, management at the LG Smart Park made it their foremost priority to improve labour-management relations in cooperation with the union leadership. The managers, who had seen many workers become involved in the labour disputes, invested great effort in gaining the trust of employees and fostering a union-management partnership with a view to building a dispute-free high-performance workplace. First, management abolished the status distinction between blue- and white-collar employees with regard to company uniforms and the use of welfare facilities, such as shuttle buses, cafeterias and dormitories. They sought to abandon the existing authoritarian management style and establish more horizontal relations with blue-collar workers by expanding two-way communication with individual workers and union representatives through various channels, including grievance hearings and operational information-sharing. While stepping up education on corporate values and business strategy for all employees, plant management strengthened the role and authority of middle managers and foremen in handling labour relations at the workplace. As a result of all these endeavours, labour relations at the Changwon plants gradually moved away from mistrust and confrontation to become a labour-management partnership for mutual gains, as it was officially declared in 1993.

The labour-management partnership was a cornerstone for the human-centred work system at the LG Smart Park in some respects. First, plant management and the union agreed to adopt “new HR practices”, including skills-based pay, for blue-collar workers. The skills-based pay plan offered these more opportunities for promotion, thereby reducing the gap in pay levels and status between them and white-collar employees. It also provided a framework for job-related training, which has been delivered mainly when employees are promoted to a

higher skill level or job position.⁵ In addition, these “new HR practices” included the introduction of profit-sharing plans, whereby employees are given about one third of net profits as performance-based bonuses. The average annual pay level of blue-collar workers at the LG Smart Park reached about 95 million won, or US\$83,000, in 2021, which is in the top tier of the country’s electronics industry.

Plant management and the union also agreed on a “no lay-off” policy to guarantee workers’ employment security. Accordingly, rather than taking redundancy action, management adopted a voluntary early retirement programme with some additional severance incentives to downsize the workforce by around 10 per cent during the Asian financial crisis in the late 1990s. Another agreement on employment security was reached by the union and management during the global economic crisis of 2008–09; it was based on an exchange of mutual gains according to the principle of “no wage increase and no redundancies”. Following the experience of that economic crisis, the plant began using in-house subcontractors under non-regular employment relations. These are expected to serve as a buffer saving regular workers from redundancy.

The labour-management partnership and the human-centred work practices adopted to improve employees’ job attitudes and competencies have combined to create an innovative workplace. The LG Smart Park has implemented various innovation programmes featuring employee involvement, such as suggestion schemes, quality management circles and kaizen (“continuous improvement”) worker groups. The most effective programme has been TDR (Tear Down & Redesign), which was launched in the early 2000s and soon established itself as a unique model encapsulating the LG Group’s approach of “fast workplace innovation for fast growth”. TDR groups typically bring together white-collar employees from product development, marketing and production management, and blue-collar workers with supervisory roles or high skills as cross-functional teams. This programme was very successful in innovating both products and production processes at the LG Smart Park, contributing significantly to the development of various first-rate home appliances and air conditioning solutions. Production workers are also involved in workplace innovation by suggesting new ideas to tackle problems in production processes and by carrying out minor operational improvements. According to Cho et al. (2021), more than one innovative idea per month – out of the suggestions

5 Although new and young employees at the LG Smart Park continue to receive as much job training as in the past, the overall volume of training has been gradually reduced because of the increasing proportion of higher skills grades resulting from an ageing workforce.

submitted by all workers at the Changwon plants – is accepted by the management as feasible. The outcomes of workplace innovation at the LG Smart Park are very impressive. For example, the length of production lines was reduced by more than half and, consequently, the average cycle time of production was shortened to a few seconds in the mid-2000s (Bae 2008). Quality and occupational safety were also significantly enhanced. Because of the high-trust partnership between labour and management, the employees are not anxious that technological innovations might undermine their interests and they do not resist managers' efforts to introduce such innovations. The human-centred work system at the LG Smart Park thus helps management to implement technological innovations more quickly and smoothly.

The effect of human-centredness on firm performance at the Changwon plants has been outstanding. LG Electronics had already secured an international reputation as a supplier of high-quality products to original equipment manufacturers by the early 1990s, when the HCW model was implemented. However, it soared to become one of the top three household and air conditioning appliance makers worldwide in the 2000s, and by 2021 it was the top global producer. Moreover, the LG Smart Park has reported a sharp increase in its revenues since 2016. Contrary to the predictions made in the 1990s that home appliance manufacturers in the Republic of Korea would eventually be edged out by low-wage competitors in developing Asian countries, LG Electronics has been experiencing sustained growth thanks to its business strategy of high-quality premium products, which is underpinned by the human-centred work system. Human-centredness at the LG Smart Park has had a very positive effect on workers' well-being as well. Thanks to the company's excellent performance, both wages and employment at the Changwon plants have increased at a higher rate over the past two decades than at other electronics firms in the country. For instance, employment size at the plants has grown by 5 to 10 per cent over the past ten years, with the number of engineers working in R&D increasing by a lot more.

5.4.3. POSCO

Ever since its origins, POSCO has been implementing skills-based HRM practices in view of the nature of its production processes and corporate values. Steel-making processes require high skills and tacit knowledge because the automated heavy equipment is susceptible to unpredictable failures and raw materials are difficult to standardize. Respect for people was one of the most important corporate values laid down by Tae-Joon Park, the company's founder. Even in challenging financial conditions, POSCO offered its employees generous corporate welfare. Moreover, it introduced a job training system in the mid-1980s, investing considerably in human resource development among production workers.

The company's human-centred work practices were developed further in the face of labour-management confrontation in the late 1980s. The labour union, organized in 1988, attempted to threaten the corporate management with dispute action in 1990 in the historical context of the "Great Labour Struggle". However, it had shrunk by then to a minority organization with fewer than 100 members, owing to the widespread repulsion felt by both management and workers towards its militant stance. A labour-management committee was established soon afterwards that has since served as an active conduit of plant-wide worker representation for communication, consultation and even collective bargaining with regard to wage increases and employee welfare.⁶ The labour-management partnership at POSCO, based on non-union workers' representation, functioned well in promoting the adoption of human-centred work practices and fostering peaceful workplace relations for a long time, until two labour unions were organized in 2018. Despite having been confronted in recent years with challenges from a militant union and lawsuits regarding employee status filed by subcontracted workers, the labour-management partnership at POSCO remains intact and is supporting the new senior management's "Corporate Citizenship" values, the company's very own version of environmental, social and corporate governance.

The pay system for blue-collar workers at POSCO currently comprises seniority-based wages, skills-based wages, bonuses and performance-sharing incentives. This framework was introduced following a compromise reached by the labour-management committee in the early 1990s. At that time, a thorny issue of labour relations at POSCO

6 In addition, POSCO introduced various channels of direct and indirect communication to ensure that workers have a voice, including intranet-based open discussion rooms, communication with the CEO, a young board representing junior employees and workplace meetings with senior managers.

was the discrimination in pay between blue- and white-collar workers. To reduce the gap, an integrated pay grade system was adopted for both groups of employees, offering pay increases and more promotion opportunities to blue-collar workers. Moreover, a profit-sharing plan and an employee stock purchase programme were implemented: the former provided for employees to receive at maximum 800 per cent of their monthly base wage as additional pay out of the surplus of corporate operating income, while the latter allowed employees to buy company shares at a discount of 50 per cent.

It has been POSCO's official policy to guarantee employment security, as evidenced by the fact that there were no redundancies during the two economic crises in the late 1990s and late 2000s. At the same time, the company adopted a voluntary early retirement programme and expanded the use of in-house subcontractors in response to the ageing of its workforce and to meet organizational restructuring needs. Since the voluntary early retirement programme was launched in 1995, the workforce has been reduced by around 1,400 employees without the need to resort to lay-offs. In the latter half of the 2000s, POSCO outsourced some low-value businesses processes through a form of in-house subcontracting. Many subcontractors were recruited from among the company's supervisors and middle managers, who were given generous financial incentives for transferring to retirement. This outsourcing enabled POSCO to reduce the employment size to some extent during the late 2000s.

As noted above, the core of the human-centred work system at POSCO has been job training, supported by the company's major investment in human resources development. According to Jang (2010), for example, every production worker received a total of 300 hours of training in 2007. However, in 2011, when the work shift scheme was changed, upon workers' demand, from four teams doing three shifts to four teams doing two shifts, training hours were reduced somewhat because the new scheme made it difficult to carve out training time from the longer daily working schedules. When a weekly working time limit of 52 hours was enshrined by law in 2018, training hours were further curtailed. Currently, workplace training – the main goal of which is to develop the intellectual skills of production workers so that they can handle digital production technologies – is delivered mainly through on-the-job training and workplace innovation activities. In view of the bipolar distribution of workforce age, that is, the high shares of older and younger workers, the transfer of skills from experienced senior workers to inexperienced junior colleagues is key to ensuring the continuity of plant operations. Various measures have accordingly been

taken to facilitate such skills transfer, including one-to-one job training with senior and junior workers matched in pairs and video education to showcase experienced senior workers' tacit job skills.

POSCO has a long history of employee-involved workplace innovation. Borrowing from the Japanese production model, it implemented an employee suggestion scheme and quality circles in the 1970s. When it adopted the "Six Sigma" methodology in 2002, POSCO took a veritable quantum leap in employee-involved innovation activities. The company developed a simplified version of Six Sigma ("Quick Six Sigma", QSS) for production workers because the original version was too difficult for them to assimilate. With several upgraded versions over the years, QSS has been used as the main tool for workplace innovation, focusing on technological improvements to production equipment. The QSS programme is aimed not simply at innovating the workplace but also at upgrading workers' skills and promoting labour-management communication at the workplace level. Remarkably, every production worker at the POSCO steel mills is involved in at least one innovation project team, which is typically composed of four to five workers. Having experienced a spate of serious occupational accidents in recent years, POSCO has since 2021 concentrated on workplace innovations to enhance occupational safety.

The impact of employee-involved workplace innovation at POSCO has been very impressive. Such innovations have considerably improved the effectiveness of production equipment, which is critical to labour productivity and product quality at steel mills. For example, workplace innovations helped to save manufacturing costs of more than 230 billion won, or US\$197.2 million, in 2019. As a result, POSCO has gained a reputation as one of the most labour-productive steel makers in the world. The employee-involved workplace innovations have paved the way for the development and production of top-quality premium steel. Demand for premium products tends to result in small batch units, which require a more flexible operation of production equipment. All these challenges are met effectively by employee-involved workplace innovation. The human-centred work system, based on workplace innovation with the involvement of highly skilled employees, has helped POSCO to tackle diverse challenges that have arisen at its steel mills and to keep performing at a high level over the past decades. The sales volume has increased approximately sevenfold between 1989 and 2020, while the company's share of global sales of premium steels reached 50 per cent in 2017, contributing to a rise in operating profit of over 10 per cent.

Technological innovations have supported the HCW model at POSCO. The principal machines and equipment at its steel mills have hardly been replaced by new ones; instead, they have tended to be continuously improved through employee-involved workplace innovation. In recent years, some production processes have been redesigned according to the concept of a “smart factory”, that is, one equipped with big data and artificial intelligence. However, these technological innovations require experienced workers’ tacit knowledge to a certain extent, which means that they are often combined with employee-involved innovation activities. Such endogenous technological innovations at POSCO are likely to be less detrimental to workers’ interests than exogenous ones and should therefore provoke less resistance from the workforce.

In summing up the three case studies of human-centred workplaces – Yuhan-Kimberly in Chungju, the LG Smart Park in Changwon and POSCO – we may highlight a number of points. First, the human-centred work systems at these workplaces are commonly based on a “virtuous” bundling of job training, performance- or skills-based compensation, and employee involvement. Second, the systems were introduced and promoted to address labour–management confrontation, with a good labour–management partnership subsequently being key to their successful operation in each of the three workplaces. These case studies demonstrate that the effective implementation of human-centred work practices requires the building of mutual trust between labour and management, which may be largely based on corporate norms of human respect. In addition, our case studies confirm that employment security and worker representation are significant factors behind the good performance of a human-centred work system and its sustainability. Third, they offer evidence that an HCW model helps both management and workers to achieve mutual gains by considerably enhancing both firm performance (as reflected in, for example, labour productivity, competitiveness and profitability) and employee well-being (in terms of wage increases, employment security and job promotion, among other aspects). Lastly, these case studies reveal the importance of synergies between human-centred and technological innovation at the workplace – synergies that make each set of innovations more effective and improve the expected outcomes.

► 5.5. Government policy initiatives to promote human-centred work practices

Until the early 2000s, the Government was concerned about confrontational industrial relations, so that it undertook many policy interventions to encourage labour–management cooperation rather than focusing on workplace innovation. For instance, the “people’s Government” of 1998–2003, led by President Kim Dae-jung, launched a policy campaign for a new labour–management culture entitled “CREATE 21”, the campaign’s name being an acronym of “cooperation, responsibility, esteem, autonomy, trust and engagement” and symbolizing the new industrial relations to be built in the twenty-first century (KLEI 1999). Under the “participatory Government” of 2003–07, led by President Roh Moo-hyun, policy actions to promote high-performance work practices (HPWPs) began to be actively undertaken. President Roh paid attention to the success of human-centred workplace innovation at Yuhan-Kimberly and decided to promote the diffusion of its high-performance work system (HPWS) model across the country (Oh et al. 2019, 2018). Against the backdrop of the 1998 economic crisis, Yuhan-Kimberly successfully introduced a lifelong learning system and a four-shift working scheme through the labour–management partnership, thereby achieving impressive growth in labour productivity and employment size. In 2004, the New Paradigm Centre was established as part of the Korea Labor Institute, a public think tank for labour policy, and tasked with developing and diffusing new employment models to enhance both labour productivity and job creation. In the same year, the Special Commission for Building People-Led National Competitiveness was set up as a presidential advisory body to act as a “control tower” overseeing the diffusion of Yuhan-Kimberly’s HPWS. Moon Kook-hyun, the CEO of Yuhan-Kimberly, became the Chairman of the Special Commission, which operated in the form of a public–private partnership. Working closely with the Special Commission, the New Paradigm Centre offered consultancy

services for workplace innovation, particularly in relation to changes to work shifts and the organization of learning, which were delivered by experienced consultants from Yuhan-Kimberly. In 2005, when Mr Moon resigned from his position at the Special Commission and the Yuhan-Kimberly consultants withdrew from the New Paradigm Centre, the Centre's consultancy services were officially subsumed into a government-sponsored programme, which was designed to promote labour-management cooperation as well as workplace innovation (Jang et al. 2012). Between 2005 and 2007, the New Paradigm Centre's consultancy activities gained momentum as the Centre received increased financial subsidies from the Employment Insurance Fund after its services were recognized as part of the policy assistance programme of the Ministry of Employment and Labor. As a result, the number of the Centre's consultancy projects grew from 13 in 2004 to 73 in 2007, alongside a sizeable increase in the number of newly recruited consultants, and the scope of those projects expanded into such diverse areas as family-friendly management, employment security for senior workers, positive discrimination and employment opportunities for female workers. In addition, the Centre implemented various workplace innovation initiatives, such as setting up the High-Performance Workplace Innovation Forum to facilitate research, provide train-the-trainer programmes for HPWS-related trainers, and publish magazines and manuals to raise awareness of HPWS success stories and guide the process of workplace innovation.

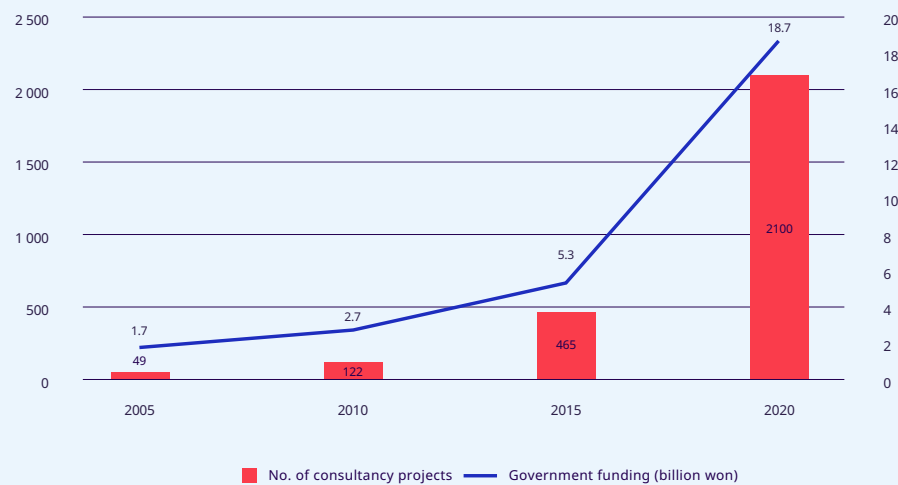
The conservative Government of 2008–12, led by President Lee Myung-bak, announced a five-year action plan to implement country-wide workplace innovation in 2008. In accordance with this plan, the New Paradigm Centre was renamed the Korea Workplace Innovation Centre and merged with the Wage and Job Innovation Centre of the Korea Labor Institute in early 2009. However, the Korea Workplace Innovation Centre was closed in 2010 owing to the organizational strife within the Korea Labor Institute, and its operations were transferred to the Korea Labor and Employment Service (KLES), which was established as a tripartite body in 2007 to promote harmonious labour-management relations (Jang et al. 2012). At the same time, with the promulgation of the Act to Support the Development of Labour-Management Relations, KLES assumed the official role of facilitating workplace innovation and labour-management cooperation. Under arrangements involving a kind of outsourcing by the Government, KLES conducted various workplace innovation programmes dealing with, inter alia, workplace diagnosis, implementation of HPWPs, and consultancy advice on wages and the redesign of jobs. During the Lee Administration, KLES expanded the scope of its workplace innovation consultancy programmes to cover new thematic areas, such as reduction of working hours, enhancement

of job quality at SMEs, job-sharing and decent part-time jobs, in accordance with the Government's policy focus, while beginning to outsource its consultancy services to external consultants. Significantly, KLES developed a Workplace Innovation Index that comprises four segments: work organization, HRM, human resources development and labour-management relations. Moreover, KLES has been conducting an annual country-wide Workplace Innovation Survey since 2010.

Under the following conservative Government (2013–17), led by President Park Geun-hye, KLES continued implementing government-sponsored programmes to promote the diffusion of HPWPs by providing consultancy services and building an infrastructure for workplace innovation (notably an academy, CEO coaching, conferences and the Workplace Innovation Survey). In 2016, the Government changed its policy approach for facilitating workplace innovation, specifically by adopting an open-contest format to encourage private agents to offer relevant consultancy services. While KLES, previously the sole provider of such services, was tasked with overseeing and managing the workplace innovation consultancy programme, various private agents were duly selected through an open contest and offered outsourcing arrangements. They included the Korea Productivity Center, the Korea Certified Public Labor Attorneys Association, Korea Management Association Consultants and the Korean Standards Association.

The liberal Government of 2017–22, led by President Moon Jae-in, made greater efforts to promote workplace innovation than its predecessors. As can be seen in figure 5.11, the amount of government funding earmarked for workplace innovation consultancy programmes increased around tenfold between 2005 and 2020, from 1.7 billion won (US\$1.8 million) to 18.7 billion won (US\$16.0 million). Over the same period, the number of government-sponsored workplace innovation consultancy projects increased sharply from 49 to 2,100. It is worth noting that government spending on such activities continued to rise in 2021 (reaching 19.4 billion won, or US\$14.8 million), as did the number of projects, which increased further to 2,480. Thanks to government subsidies, KLES is able to offer a comprehensive assistance package for workplace innovation, comprising consultancy services, infrastructure-building, and the diffusion of a culture of work-life balance as well as pay schemes to incentivize workplace innovation. The consultancy programme is the core part of the package and consists of ten modules that address several major issues pertaining to the country's workplaces, such as reduction of working hours, employment security for older workers, gender equality, work-life balance, job- and competency-based wage systems, rational performance evaluation, labour-management partnership, employee involvement in work organization, lifelong learning, workplace safety and a just labour transition.

► **Figure 5.11. Government-sponsored consultancy activities on workplace innovation in the Republic of Korea, 2005–20**



Source: Adapted from Republic of Korea, MOEL (2020).

The Moon Administration adopted an approach based on social dialogue to build tripartite consensus on the importance of workplace innovation in response to digital transformation, or the “fourth industrial revolution”. The Presidential Committee on Jobs established a task force made up of representatives from trade unions, businesses and the Government, along with academic experts, which issued a public statement on the “direction and tasks for the Korean model of workplace innovation” in January 2020. It is emphasized there that

Workplace innovation is crucial to enhance the quality of working life and corporate competitiveness in the era of the digital economy and the fourth industrial revolution, when the fusion of advanced digital technologies and industries is escalating. ... We [the tripartite representatives and experts in the task force] will make joint efforts to implement the Korean model of workplace innovation so that it helps to foster a virtuous ecosystem for job creation and to promote the vitality of industrial workplaces.

In October 2020, the Economic, Social and Labor Council, which is the statutory body for social dialogue in the Republic of Korea, announced the Tripartite Agreement on Promoting a Human-Centred Smart Factory (Economic, Social and Labor Council 2020). As explained in the preface,

Smart manufacturing innovation signifies the digital transformation of the entire value chain – ranging from planning and design, through production, distribution and sales, to after-sales service – by actively using intelligent information technology. Smart manufacturing innovation is an important national task to overcome the structural limitations of stagnant economic growth and create decent jobs. Another objective is to boost national competitive advantage in an era of uncertainty, where society is rapidly changing after the COVID-19 crisis and the pace of technological innovation is accelerating. Moreover, smart manufacturing innovation can also become a significant means of realizing a zero carbon and environmentally friendly ecosystem. Accordingly, the tripartite representatives have a common understanding that it is necessary to undertake joint efforts to accomplish smart manufacturing innovation so that a variety of firms in supply chains, whether large or small firms, may build an ecosystem of prosperous coexistence, and so that workers are provided with safe and creative workplaces to enable them to realize their potential through man-machine cooperation. In particular, the tripartite representatives have reached a social agreement to promote and diffuse a “human-centred smart factory”, guided by a shared awareness that synergistic outcomes in terms of enhancing corporate competitiveness, improving working conditions and creating decent jobs can be achieved only when the adoption of new technologies and the use of data analytics, based on mutual trust and participatory cooperation between labour and management, lead to workplace innovation and value-sharing.

The following five policy goals are set forth in the Agreement: (a) accomplishing a human-centred smart factory; (b) linking the smart factory concept to workplace innovation; (c) guaranteeing a safe work environment; (d) strengthening human resources development; and (e) fostering an ecosystem approach and the use of data analytics for smart manufacturing innovation.

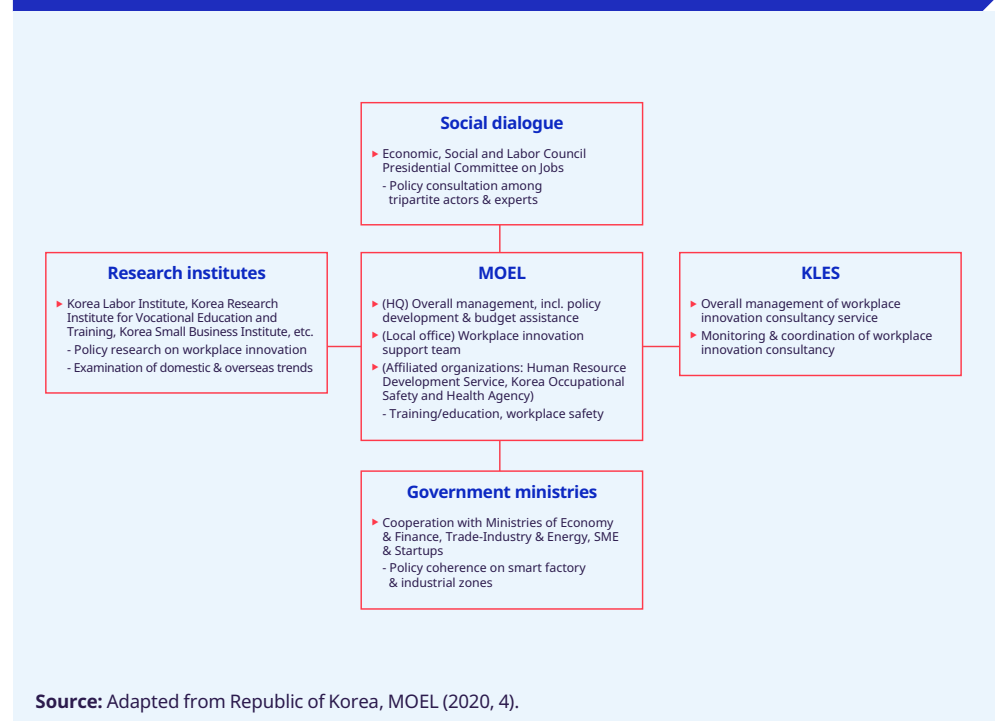
In December 2020, the Moon Administration announced a comprehensive policy plan for implementation of the Tripartite Agreement. Guided by a policy vision of “building workplaces of mutual growth through labour-management partnership”, the plan has the mid-term goal of providing workplace innovation consultancy services to 5,000 firms and fostering the emergence of 300 “hidden champions” of workplace innovation by 2024. The plan lays down three focused policy actions:

- expansion of the workplace innovation infrastructure (by establishing relevant networks, facilitating labour-management partnership, expanding the scope of the consultancy services and improving the quality of these)
- stepping up support for workplace innovation in response to changes in the world of work (by facilitating the fusion of the smart factory concept and workplace innovation, and building safe and healthy workplaces)
- diffusion of workplace innovation (by diffusing best practices and promoting workplace innovation at the local level).

As illustrated in figure 5.12, the plan sets out a comprehensive framework, anchored on the Ministry of Employment and Labor, for the effective implementation of workplace innovation policies based on tripartite social dialogue and cooperation with other ministries and affiliated public institutes. In addition, the Government has undertaken policy efforts to increase the number of smart factories from 12,660 in 2019 to 30,000 in 2022, and encouraged these to use workplace innovation consultancy services provided through cooperation between the Ministry of Employment and Labor and the Ministry of SMEs and Startups, which is responsible for the diffusion of the smart factory concept among small firms. Significantly, the Moon Administration implemented policies to help small firms to adopt non-face-to-face or telework infrastructure during the COVID-19 pandemic, which broke out in early 2020. Between 2020 and 2021 the Government provided 160,000 firms with non-face-to-face service vouchers (with a maximum value of 4 million won, or US\$3,200, per firm), which the beneficiary firms could use to install a digital telework system to enable their employees to work from home (Republic of Korea, MOEL 2020).

In May 2022, a new conservative Government, led by President Yoon Suk Yeol, took office. The Yoon Administration is prioritizing labour market reforms, including the relaxation of key labour standards and worker protections (notably with regard to working hours, minimum wages and penalties for occupational accidents), but has hardly mentioned workplace innovation. Time will tell how the new Government will design and implement policies in that area.

► **Figure 5.12. Policy framework for the promotion of workplace innovation in the Republic of Korea**



Source: Adapted from Republic of Korea, MOEL (2020, 4).

In summary, the national authorities in the Republic of Korea have undertaken policy initiatives to diffuse HPWPs since the early 2000s, fostering the evolutionary development of these practices. That being said, the liberal governments (led by Presidents Roh Moo-hyun and Moon Jae-in) have been more proactive than the conservative ones (led by Presidents Lee Myung-bak and Park Geun-hye). Government policy initiatives to promote workplace innovation have over time been adjusted and widened in their focus and coverage in response to the changing demands of labour markets and the societal context, notably the digital technology revolution, net zero global regulations and the COVID-19 crisis. These initiatives have involved a variety of policy tools designed to facilitate human-centred workplace innovation, such as the Workplace Innovation Survey, consultancy services and social dialogue.

► 5.6. Conclusion

In this chapter we examined trends related to human-centred workplace innovation in the Republic of Korea and its effect on firm performance and employee well-being; presented three case studies of human-centred work systems (Yuhan-Kimberly in Chungju, the LG Smart Park in Changwon and POSCO); and traced the historical evolution of government policy initiatives supporting human-centred workplace innovation in the country. We conclude by discussing a number of implications that are meaningful from an international perspective, going beyond the context of the Republic of Korea.

First, our analysis reveals that firms in the country score poorly on human-centred work practices (scoring only 2.0 to 2.5 points out of a maximum possible 7 points), and that there has been a downward trend in that regard over the past decade. This fits in with the findings of studies conducted by research groups from the Korea Labor Institute (Jang et al. 2019; Oh et al. 2018). As pointed out by Jang et al. (2019), the fact that overall human-centred workplace (HCW) scores in the Republic of Korea have been much lower than the average for OECD countries can be explained by several factors: (a) managers' authoritarian style and labour-exclusive approach to workplace innovation, shaped mainly by a Fordist production regime; (b) lack of awareness among management and unions with regard to human-centred workplace innovation and its benefits; and (c) adversarial labour-management relations. In addition to these factors, the contextual challenges posed by the digital revolution, net zero regulations, demographic ageing and recurrent economic slumps are likely to put pressure on employers and reduce their interest in implementing human-centred workplace innovation, as reflected in the declining HCW score of the Republic of Korea over the past decade. Given the deteriorating conditions that are prompting management and unions to move away from human-centred workplace innovation, the Government has an increasingly important role to play in raising awareness of the beneficial effects of such innovation (including through model cases) and in promoting labour-management partnership as a key precondition for its success.

Second, both the empirical analysis and case studies presented in this chapter make it clear that human-centred innovations at workplaces in the Republic of Korea are quite likely to produce mutual gains for firms and workers in terms of performance and well-being, as in

advanced Western countries. Our empirical evidence confirms that the systematic bundling of human-centred work practices – including job training, performance- and/or skills-based compensation, employee involvement, worker representation, employment security and information-sharing – can improve employee well-being (as reflected in wage and employment growth, work-life balance and job attitude), as well as enhancing firm performance in terms of labour productivity, profitability and competitiveness. As already mentioned, a strong labour-management partnership is essential for the success and sustainability of work systems that are human-centred as well as high-performance. In that regard, it is interesting to see the three case studies demonstrate that management and unions can overcome confrontational industrial relations and establish a win-win partnership as they jointly undertake human-centred workplace innovation. It is also worth noting how employment security is at the same time a component of a human-centred work system, a precondition for its success and an outcome of such a system.

Lastly, our study finds that human-centred innovation and technological innovation can be complementary rather than antagonistic. This informs the classical theory of sociotechnical systems and is corroborated by evidence from companies in the Republic of Korea suggesting that automation does not necessarily lead to redundancy – namely, when the workers affected by automation are assigned to other jobs through training programmes offered as part of human-centred workplace innovation (Kim et al. 2020; Noh et al. 2022).

The recent downward trends regarding human-centred work practices in the Republic of Korea, which are identified in section 5.3, call for further, detailed investigation of the causes. Nevertheless, this chapter shows that human-centred workplace innovation leads to a meaningful enhancement of both firm performance, including labour productivity, and employee well-being, as confirmed by our empirical analysis in section 5.3 and the case studies in section 5.4. The evidence from the Republic of Korea presented here would therefore justify the use of a human-centred approach to increasing workplace productivity in the politico-economic setting of non-Western countries, where an authoritarian style of corporate governance and management predominates. Moreover, it offers a compelling rationale for governments, employers and trade unions to strive for a common understanding of human-centred workplace innovation and to undertake joint efforts to adopt and diffuse relevant practices across firms and industries.

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6. Conclusions

Fang Lee Cooke and Nikolai Rogovsky

► **6.1. Introduction**

Productivity¹ is affected by many factors at the national, industry, firm and individual levels. In this book, we explored the extent to which productivity improvement in four major Asian economies – China, India, Japan and the Republic of Korea – has been underpinned by high-road human resources policies and practices that are in line with the human-centred approach promoted by the ILO. The findings of the four country chapters may not be unique to these Asian countries but have relevance for other nation States too. By focusing on four large Asian economies as a starting point, our intention was to emphasize the important role of high-road HRM for sustainable productivity growth and to call for further evidence-based research in support of policy decisions and management practices.

According to the World Bank, labour productivity has slowed down worldwide in recent decades. This is a major barrier to poverty reduction and to the convergence of wage income and living standards, especially in developing countries and between developed and developing countries (Cusolito and Maloney 2018). Governments have historically been confronted with the challenge of designing effective policy interventions to improve labour productivity – a challenge exacerbated by the COVID-19 crisis and the global economic downturn (Cooke, Dickmann and Parry 2023). As the world economy goes through a difficult period, it may be very tempting to adopt short-term decisions and practices that would undermine workers' employment prospects and social well-being. Moreover, pro-labour HRM policies and practices may be costly to implement. In this concluding chapter, we summarize the key findings of the four country chapters and highlight some challenges and constraints when it comes to improving labour productivity. We also offer a few suggestions for future research to shed light on the role of institutional actors and social dialogue in raising labour productivity, as well as on gender inequalities and other socio-demographic issues related to productivity enhancement.

¹ In this book we are concerned mainly with labour productivity. However, our focus is broader than that and includes other measures of productivity and performance at various levels of analysis.

► **6.2. Key findings from the four country chapters**

Several key findings have emerged from the country chapters, pointing to some commonalities across the four selected Asian countries despite their different economic structures and stages of economic development.² We highlight these commonalities and discuss country-specific features in this section.

6.2.1. Productivity enhancement through technological change instead of high-road HRM

A skilled and innovative workforce is essential to enhancing workplace productivity in a sustainable manner. So is a collaborative approach to managing industrial relations in the workplace, where trade unions can help to facilitate HRM (Cook, MacKenzie and Forde 2020). Although all four countries have been investing in training and development, a common finding is that many firms do not invest sufficiently in skills training and the development of their workforce (see table 6.1). Instead, they may try to increase workplace productivity through exploitative labour practices and technological change that reduces dependence on human workers. Artificial intelligence and algorithms are increasingly used to monitor employee performance. A cost-sensitive approach to optimizing productivity prevails. In particular, workplace optimization has become popular in the post-pandemic period and is characterized by high-tech but low-road practices, such as algorithmic HRM to manage performance, instead of employee involvement for suggestions and building relationships of trust in the workplace. There are several varieties of low-road HRM, as can be seen in the four country chapters. Moreover, raising wages and outsourcing have been the main strategies used by firms to combat skills shortages – such strategies are not conducive to the long-term improvement of labour productivity. In the Republic of Korea, there has been a noticeable downward trend regarding high-performance HRM practices in recent years. Similarly, terms and conditions of employment in China have been eroded.

² We would like to acknowledge explicitly that this section draws on information from the four country chapters.

Nevertheless, there is evidence pointing to the emergence of highly productive “clusters of excellence” among both multinational and domestic firms (for example, in China) when it comes to the adoption of high-road HRM practices. With regard to the Republic of Korea, it has been demonstrated that human-centred innovation and technological innovation can be complementary rather than antagonistic. In particular, automation does not necessarily lead to redundancy when the workers affected by it are assigned to other jobs through training programmes offered as part of human-centred workplace innovation. There are many examples of local governments and the social partners (employers’ and workers’ organizations) undertaking joint efforts to disseminate high-road HRM practices. Typically, such productive collaboration is easier to foster and maintain in industrial zones or clusters of firms. Intervention by the State through local government agencies appears to be an effective driving force, but incentives are necessary to secure company buy-in.

► **Table 6.1. Factors influencing labour productivity**

Country	Factors promoting labour productivity	Factors constraining labour productivity
China	<ul style="list-style-type: none"> • FDI leading to economic and technological upgrading and skills development • Performance-related rewards • Technological innovation (strongly promoted by the Government) 	<ul style="list-style-type: none"> • Skills shortages • Inadequate social security protection • High level of informal employment, which reduces human capital investment by employing organizations • Relatively low level of managerial competencies
India	<ul style="list-style-type: none"> • Technological innovation • Government initiatives, such as the Skill India programme, to improve the quality of skills and productivity 	<ul style="list-style-type: none"> • Productivity is low in some sectors because of over-dependence on them for employment

	<ul style="list-style-type: none"> • Companies have adopted human resources policies to enhance productivity, such as improvement of working conditions, skills training and introduction of new technologies • Adoption of high-performance human resources practices 	<ul style="list-style-type: none"> • Labour laws that have been blamed for the high business costs and low productivity of Indian workers, although the new codes were enacted, their effects have yet to be assessed • Insufficient provision of workforce training to enable workers to acquire new skills and perform their jobs more efficiently • Relatively low level of managerial competencies
Japan	<ul style="list-style-type: none"> • Technological innovation • A skilled workforce • Investment in off-the-job training • Government training initiatives 	<ul style="list-style-type: none"> • Insufficient provision of workforce training • Workforce ageing • Increase in the proportion of non-regular workers • Reduced number of hours worked
Republic of Korea	<ul style="list-style-type: none"> • Technological innovation • A skilled workforce • Bundled human-centred HRM practices 	<ul style="list-style-type: none"> • Adversarial industrial relations • Employers are increasingly adopting low-road HRM practices

The country chapters illustrate the positive role played by institutional actors in the dissemination of HRM practices over time. For instance, the state-led opening of China’s market to productivity-enhancing technology and management know-how from foreign firms has helped to develop the skills of Chinese workers and to increase the quality of production. Trade unions in the country have made an important contribution to improving workplace health and safety. However, unions could do more in both the public and private sectors, and in relation to both blue- and white-collar jobs, to help to reduce overwork- and heat-related injuries.

In the Republic of Korea, empirical analysis and case studies show that human-centred workplace innovation and the systematic bundling of human-centred work practices – including job training, performance- and/or skills-based compensation, employee involvement, worker representation, employment security and information-sharing – can improve employee well-being as well as labour productivity. Trade unions and management in various companies in the country have succeeded in overcoming confrontational labour relations through a human-centred approach to HRM and thereby establishing a win-win partnership.

6.2.2. Major challenges in increasing labour productivity

The four country chapters have identified the main challenges involved in increasing labour productivity (see table 6.1). While skills shortages and inadequate investment in skills training are found in all four countries to varying extents, demographic change, as manifested in a declining birth rate and population ageing, is a problem that particularly affects China, Japan and the Republic of Korea. Moreover, some employers have an adversarial relationship with trade unions and their members (for example, in India and the Republic of Korea). National policy initiatives and regulations are often inadequate to promote labour productivity through quality employment, labour protection and skills development.

In India, high growth rates are failing to deliver structural change and there is therefore a large informal economy that is characterized by low productivity levels in comparison to the formal sector. Productivity can be enhanced by skills development, but the persistent mismatch between the skills required by employers and the skills base of jobseekers remains a challenge. Continuing skills shortages prevent the country from meeting the growing demands of the global supply chain, while, at the same time, stringent labour laws make it difficult to balance business efficiency and social protection for workers. New forms of work arrangements, such as working from home in the wake of the COVID-19 pandemic, have been found by employers to lower employee productivity and to make it hard to hold workers accountable because of the reduced scope for managerial control. In addressing the problem of skills shortages, firms should join forces with relevant stakeholders to improve the infrastructure for vocational education and training,

which is essential for sustained economic growth and to give India a competitive edge. Initiatives like the Social Compact and activities under the ILO's SCORE programme can make a significant contribution to improving labour productivity in India, as can government regulation to encourage the trialling of innovative HRM policies.

As for Japan, one serious problem is that labour productivity, measured as GDP per hour worked, is lower than the G7 average and that the gap with G7 countries has grown in recent years. Although the number of employees has increased since 2010, partly because of the rising labour force participation rate of women and older workers, this is offset by a decline in the number of working hours. Despite the beneficial effect of investment in training on productivity, only a small proportion of Japanese firms offer training for their employees (see Chapter 4). To address this problem, the Government has introduced policies to enhance investment in human capital as part of its "Grand Design and Action Plan for a New Form of Capitalism". The Government is also encouraging firms to disclose such investments.

More generally, with regard to labour market structures, education and training systems, technological paradigms and social welfare regimes, countries may be locked into certain trajectories that are difficult to move away from. For example, rigorous labour laws in India increase business costs and incentivize the continued use of informal employment, while overstaffing in the formal sector (caused partly by the difficulty in making people redundant) reduces firms' ability to adopt high-road HRM practices. In China, higher education, which rarely provides practical skills training, is distinctly separate from vocational education, which has been criticized for being obsolete and under-resourced. Vocational education enjoys much lower social prestige and it is hard to attract good students. As a result, there is a persisting shortage in the skills required by businesses. China does not have a social partnership approach to skills training of the kind found in such countries as Austria, Denmark, Germany, the Netherlands and Switzerland (Emmenegger and Seitzl 2020). Owing to institutional and cultural differences, each country may pursue its own way of improving productivity, which is not necessarily human-centred. This means that certain common driving forces and mechanisms need to be identified to promote a high-road and human-centred HRM approach to raising productivity.

► 6.3. Topics for future research and their policy implications

As discussed in Chapter 1 and earlier in the present chapter, labour productivity is affected by many factors at the macro, industry, firm and individual levels. This book has made a start by highlighting some of these factors in selected countries and identifying the mechanisms that firms have relied on to raise their productivity. Our research also shows that a high-road HRM approach has not been commonly adopted by firms in these four Asian countries to increase labour productivity. While the findings presented here may be relevant to other countries, many issues remain unexplored and other countries have yet to be examined more closely. There are ample opportunities for HRM researchers to broaden their investigation of firm performance and employee productivity by collaborating with colleagues from other disciplines. In the following subsections we suggest a number of topics for future research that have both policy and managerial implications.

6.3.1. The role of institutional actors in improving labour productivity

Institutional actors have a critical role to play when it comes to concerted efforts to develop the skills required, provide decent jobs and promote the adoption of human-centred HRM practices with a view to improving productivity at the individual, firm, industry and, ultimately, national levels.

Collaboration between the State, trade unions and employers to create social dialogue and foster social partnerships remains key to good industrial relations, which in turn are essential to improve labour productivity. Given that a social partnership approach has not been adopted in many companies and industries, and in view of the tendency of management to move away from human-centred HRM practices and the declining power of unions to lobby for such practices (as illustrated by the Republic of Korea), the State has a major part to play in

bringing the unions and management together to promote workplace productivity. How can this be achieved? In this book, we presented the case of Japan, where the Government is actively encouraging firms to invest in HRM through the “Grand Design and Action Plan for a New Form of Capitalism” and the new Corporate Governance Code. What other examples are there of state interventions to promote and then enforce high-road HRM and the necessary associated changes? And what factors explain the different outcomes and levels of success in each country?

Existing research has yielded mixed findings about the effects of trade unions on “a broad range of organizational and individual outcomes, including productivity, productivity growth, capital investment, profits, and job satisfaction” (Doucouliagos et al. 2018, 287). Empirical studies support the conclusion that trade unions can play a positive role in various ways with regard to promoting good industrial relations, improving terms and conditions of employment, and facilitating the adoption of high-road HRM practices (Barth, Bryson and Dale-Olsen 2020; Cook, MacKenzie and Forde 2020; Keune 2021; Kochan and Kimball 2019). Many of these studies deal with advanced economies and highlight a range of contingent factors that influence the impact of unions in the aforementioned areas. Further research could be conducted into the effect of trade unions on labour productivity and decent work in developing countries. Similarly, research on the role of trade unions in developed countries could be expanded to address new geopolitical dynamics, demographic change, new developments in employment systems and practices, lack of social justice (which manifests itself, in particular, in rising inequality between capital and labour), the changing nature of work and how this affects workers’ financial, social and psychological well-being.

At the subnational level, existing research shows that costly targeted policies to promote regional regeneration or catch-up development have often led to disappointing outcomes (see, for example, Grover, Lall and Maloney 2022). Place-based development policies have tended to focus on infrastructure-building without paying sufficient attention to human capital development and how to attract and retain skilled migrant workers. Economically underdeveloped regions in developed and developing countries alike often suffer from human capital shortages. Attracting and retaining skilled migrant workers is an effective way of building up capabilities in a short space of time. Future studies could investigate how local government authorities can work with businesses to develop human resources strategies and policies to

improve labour productivity. In general, regional development policies should be both place- and people-based to achieve better outcomes. Skilled workers tend to gravitate towards richer regions in search of more opportunities and a better lifestyle, which makes it difficult for underdeveloped regions to attract and retain such workers. Even when skilled workers have been attracted to a region from outside, the costs may outweigh the benefits and create inequalities for the local workers. A long-term solution would be for governments and businesses to invest directly in underdeveloped regions and enhance the skills of local people so that they are able to find gainful employment in the place where they were born and grew up. This is particularly relevant in the case of developing countries such as China and India, where there are considerable regional disparities.

At the national level, the State is responsible for designing and implementing a strategic plan for economic development underpinned by labour productivity growth. While such a plan may be in place, putting it into practice often proves difficult. What are the main challenges? What lessons can be learned from other countries and which good practices can be shared? What institutional innovations have been undertaken through national and regional productivity councils, commissions and organizations? To what extent can national institutional frameworks and practices be transplanted to other countries through international organizations and multinational firms?

6.3.2. Identifying sectoral effects

Different industries have different levels of resource endowment, including quality of human resources (see, for example, Chen and Hou 2022), and, relatedly, different employment and HRM strategies. High-tech industries, banking and financial services typically offer more favourable salaries and are able to attract highly educated workers, while traditional manufacturing, construction and tourism are low-paying sectors and have a lower quality of labour input.³ The construction industry, for instance, is labour-intensive and there is a growing skills shortage worldwide. In developed countries, construction workers are often unionized and the industry is beset by confrontational workplace relations (Belman, Druker and White 2021). Most construction workers in developing countries come from rural areas and do not receive proper training when they take up such work; in addition, many are self-employed and poorly paid. Employers

in this industry typically take a short-term view of skills training and fail to provide for adequate health and safety arrangements, especially in developing countries. How can productivity be raised through more effective skills training and protection of health and safety? How can HRM help to improve workplace productivity and employer–employee relations in the construction industry? How can the industry be digitalized to improve labour productivity without displacing workers?

We call for more industry-based research since that can help to address sector-specific problems and at the same time generate insights that are relevant to multiple industries. Such research can inform tailored policy recommendations that may require coordinated action from different stakeholders or institutional actors at various levels (see also section 6.3.5 below on older workers). Many of the problems faced by traditional industries are common to different parts of the world, which means that insights and lessons learned from one country or region may be valid and useful elsewhere.

6.3.3. Linking business strategy to HRM and labour productivity

High-road HRM is important to achieve a sustainable workforce, sustainable productivity and, ultimately, a sustainable society. The four country chapters have provided some examples of the HRM practices implemented by leading firms to improve workers' well-being, job satisfaction and performance. While firms address matters of productivity in different ways and not all firms are willing or able to adopt such practices, how can they be incentivized to make the enhancement of workplace productivity through human-centred HRM a core part of their business strategy? Specifically, how can firms create a workplace that is favourable to employees' work–life balance and fosters their employability and professional development? How can a hybrid workplace model be adopted with the aid of digital technology to provide a win–win solution for firms and workers? How can HRM practices take account of generational differences in the workforce?

Managerial competence has a major effect on workers' motivation, job satisfaction and productivity in many countries and industrial sectors. For instance, a comprehensive review of studies published between 1986 and 2016 on the factors hampering construction productivity around the world identified inadequate supervision due to poor managerial competence as the second most common constraint, and poor communication as the sixth (Hasan et al. 2018, 916). Conversely, Bhattacharya and Rath (2020) found that managers' level of experience was positively associated with labour productivity in India.

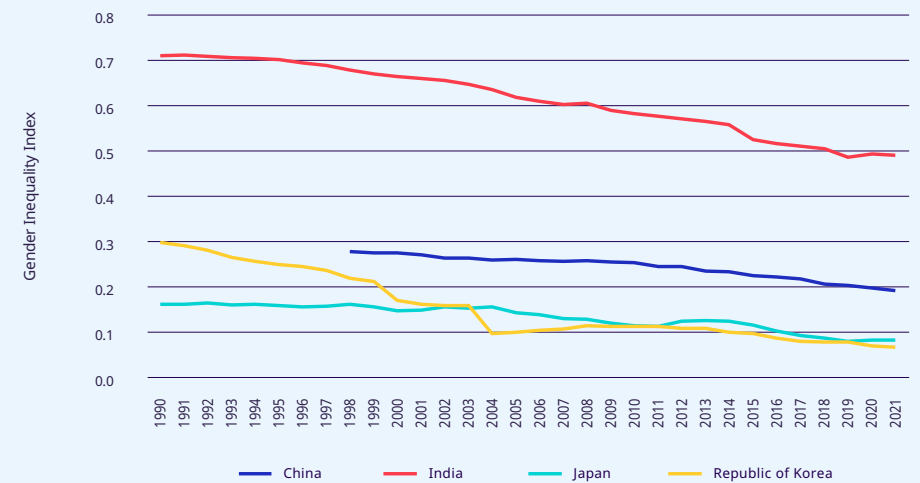
³ In the Chinese context, relevant data on the average educational attainment and wage levels of the workforce broken down by industrial sector can be found in China, National Bureau of Statistics (2022).

Although high-road HRM is a universal principle, its configuration and implementation need to be aligned with the interests of the workforce and firms and, more broadly, with societal culture. Social norms and attitudes towards work shape the expectations and behaviour of workers. In some societies, especially Asian ones, religiosity plays an important role alongside, or without the existence of, trade unions. Studies have found that firms incorporate religious values into the training that they offer in order to engender a positive mindset among employees towards work and life, and that employees motivated by their religiosity, in turn, report higher levels of well-being and engagement at work (see, for example, Abu Bakar, Cooke and Muenjohn 2018; Abualigah, Davies and Harrington 2021). Can the concept of high-road HRM encompass cultural, religious and spiritual values so that its universal relevance is enhanced? Where no trade union exists, can religious organizations act as a kind of social partner to facilitate harmonious workplace relations and foster employee engagement? And in societies such as that of Sri Lanka, where Western-style industrial relations coexist with a strong religious influence in some workplaces, how do the two factors work alongside or against each other and affect labour productivity? The linkage between productivity and well-being remains largely unexplored (one of the few studies addressing it is Sharpe, Sichel and Van Ark 2022). Future research on high-road HRM at the firm level in different societal contexts may help to shed light on this linkage, generating policy and practical recommendations to improve the level of happiness of the workforce around the world.

6.3.4. Gender and labour productivity

Labour productivity is gendered. This important aspect has not been discussed explicitly in the four country chapters. However, we want to draw researchers' attention to several factors that may affect women's labour productivity and that could therefore be considered in future studies. Apart from their lower level of human capital – a concept that encompasses educational attainment, professional accreditation and work experience – women's concentration in low-paying sectors and jobs as a result of labour market segregation, working hours and the demands of domestic unpaid work has contributed to the undermining of women's productivity and led to gender pay gaps (Becker 1985, 2009; Cooke and Hook 2018). Gender-based labour market inequalities remain quite significant in India, less so in China, Japan and the Republic of Korea. Figure 6.1 below shows the relative position of the four countries on the Gender Inequality Index compiled by the United Nations Development Programme (UNDP, n.d.).

► Figure 6.1. Gender Inequality Index scores of China, India, Japan and the Republic of Korea, 1990–2021



Note: The Gender Inequality Index is a composite measure of gender inequality that covers three dimensions: reproductive health, empowerment and the labour market. A low value indicates low inequality between women and men, and vice versa (UNDP, n.d.).

Source: Compiled from statistics available from UNDP (n.d.).

Camilletti and Nesbitt-Ahmed (2022) found that the COVID-19 crisis had accentuated gender inequalities, increased the burden of unpaid care on women and exacerbated the vulnerabilities faced by paid care workers. They also noted how the provision of social protection for women employed in care work was inadequate in many countries. This is an area that deserves further attention from researchers and policymakers in view of the high proportion of women working in the care sector and the growing trend of population ageing.

Similarly, Rubery, Bi and Rafferty (2023) argue that “integrating equality into the productivity agenda is essential for a medium to long term strategy for raising productivity that aims at improving well-being for all.” The authors provide detailed suggestions for policies on gender equality and productivity at all levels. Although Rubery, Bi and Rafferty (2023) focus on OECD countries (to which Japan and the Republic of Korea belong), their main arguments and analytical framework are applicable to other societal contexts as well. Research on gender and productivity should also consider the policies on equity, diversity and inclusion promoted by specific countries and the relevant practices adopted by firms.

6.3.5. Extending the productivity of older workers

Some studies have explored the relationship between older workers and productivity (and wages) in different national settings (for example, Cardoso, Guimarães and Varejão 2011; Clark et al. 2008; Lallemand and Rycx 2009; Van Dalen, Henkens and Schippers 2010). There is a widespread negative stereotype that older workers are less productive and therefore undermine a firm's productivity (Kudins 2022). One major issue is the declining labour power of older workers and their reduced capacity and willingness to master new technologies. This problem is often industry-specific and requires tailored solutions. To use the construction industry as an example again, another problem encountered worldwide alongside skills shortages is workforce ageing. Since construction work is labour-intensive and physically demanding despite technological advances, the productivity of older workers declines and the frequency of accidents may increase. On the other hand, older workers tend to possess more skills and tacit knowledge accumulated during their many years of work experience. Construction workers, who are predominantly men, tend to quit the profession, or to work less and at a slower pace when they reach their early 50s. In advanced economies, there is a growing range of digital devices that can be used to reduce their work intensity and the physical demands placed on them (for example, wearable robotic devices such as "exoskeletons"). However, it has been reported that workers often refuse to use them because they get in the way and are uncomfortable. What can be done to extend the meaningful working life of these workers and harness their knowledge and experience? How can technology be used to alleviate the physical demands of their work?

Another relevant sector is care work. Those engaging in such work are mainly middle-aged and older local workers and (younger) migrant workers. Care work, especially when it involves looking after people with disabilities or older persons, is physically intensive and often leads to back injuries, which may take a long time to heal; repeated injuries are common. Such work is also emotionally demanding. Nevertheless, only a few studies in the HRM literature deal with care work (Cooke and Bartram 2015; Kessler et al. 2022). In view of population ageing in many countries, the question of how to improve the terms and conditions of employment of care workers and their productivity deserves greater research and policy attention.

The stigmas and challenges encountered by older workers are by no means restricted to manual and semi-skilled occupations. Older information technology professionals (who are often unofficially classified as "older" workers before they reach the age of 40) are at

risk of demotion and displacement because of the rapid technological advances in the sector. What can be done to enable these workers to re-engage in productive employment and sustain their careers?

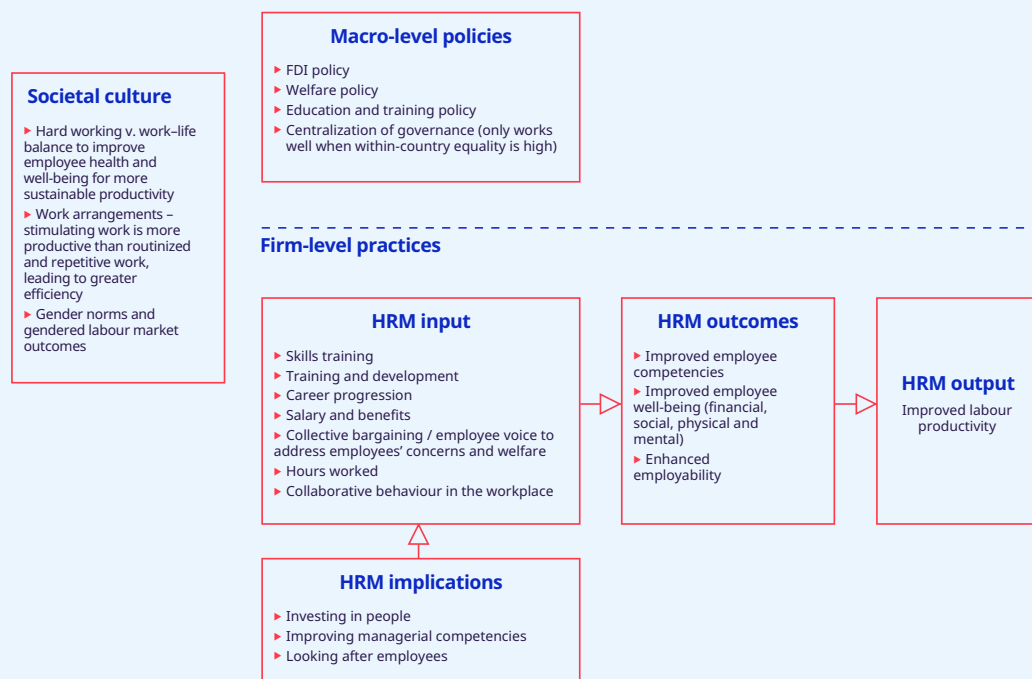
There are many avenues for research into how national and subnational governments are designing policy interventions to improve the employment opportunities and productivity of older workers and encourage businesses to hire such workers. The case study of Singapore by Thang (2011, 17) offers a useful example of state policy actions to promote skills upgrading among older workers and age-friendly workplaces based on "innovation, flexible work systems, an integrated management strategy catering to a multigenerational workforce and a rethink of the notions of retirement and productivity". In addition, it is important to consider the intersectionality effects of age, sex and occupation with regard to labour productivity and potential policy interventions and HRM practices.

6.3.6. Cross-disciplinary collaborative research

Productivity has traditionally been a topic for study primarily (but not solely) in the fields of economics and industrial relations. Future research on labour productivity would benefit enormously from collaboration across such disciplines as HRM, organizational behaviour, psychology, industrial relations, labour economics, climate economics and technological innovation, specifically in terms of providing more comprehensive and focused analysis of how external and internal factors are affecting labour productivity in different regions, industries, types of firm and occupational groups. For example, it would be worth investigating further how weather conditions and climate change may affect labour productivity depending on occupation and industry, and what measures can be taken to improve both working conditions and productivity. A relevant study pursuing that avenue is Liu, Zhang and Ren (2023). Similarly, Tan et al. (2020) look at the effect of workplace design on employees' health (including mental health) and performance, comparing underground and above-ground offices.

By way of summing up, figure 6.2 presents some of the key aspects related to HRM and labour productivity that have been discussed in this book. We encourage further research on this important topic.

▶ **Figure 6.2. Enhancing labour productivity sustainably through a high-road approach to human resources management**



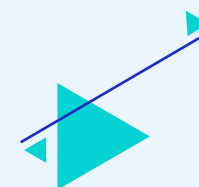
▶ 6.4. Concluding remarks

This book provides an overview of the macro-, meso- and micro-level factors that underpin the productivity of China, India, Japan and the Republic of Korea as four large Asian economies. We were particularly interested in establishing the extent to which productivity improvement could and has been supported by a high-road approach to HRM that takes into account workers' interests and well-being. The findings of the analysis presented here indicate that such an approach has not been commonly adopted by firms in these countries to raise productivity. On the contrary, firms are enhancing their productivity and overcoming skills and labour shortages through dehumanization, automation and transactional (in some cases even exploitative) HRM practices. In Japan and the Republic of Korea, which in the past boasted a relatively strong industrial relations framework protecting workers in the formal sector at least, that framework seems to be eroding. Such erosion coincides with the decline in Japan's labour productivity, as reflected in its global ranking, and also with a lessening focus by employers and trade unions on high-performance HRM practices during collective bargaining. In such a context, the State has an even more critical role to play in facilitating a partnership approach to fostering harmonious industrial relations and promoting a high-road HRM approach.

This book, therefore, provides evidence in support of the social dialogue-based approach to productivity enhancement long advocated by the ILO and contributes to the HRM literature by highlighting the HRM practices used by firms to raise productivity. Drawing on the findings from the country chapters, we have proposed several avenues for future research to clarify further the role of institutional actors, especially governments and public agencies, in promoting labour productivity growth through social dialogue and social partnership (a topic that warrants renewed attention from researchers and policymakers); differences in productivity-related issues across different sectors; and gender- and age-related effects. We call for more multidisciplinary and cross-cutting studies on a human-centred approach to workplace productivity that involves treating people with dignity and respect, fostering trust between employers and employees, and providing decent terms and conditions of employment. In addition, we urge all countries to return to or, as the case may be, adopt for the first time a social partnership approach to improving labour productivity. This requires institutional cooperation, entrepreneurship and innovation from the social partners to various degrees depending on their local circumstances.

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