

Chapter 1

Abstract

The introductory chapter explains that disruptive transitions as societal upheavals require organisations and enterprises to continuously adapt to change or proactively anticipate change, like new digital technology. The concept of workplace innovation is helpful in this regard. The introduction sets out the central thesis, the main themes of the book and introduces the chapters in this volume.

Keywords: workplace innovation; digitalisation, disruption, technology

Chapter 2

Abstract

The organisational context mediates the relationship between technology and work impact. This reality is not recognised, nor acknowledged, in many studies. However, the European Company Survey 2019 has revealed this relationship in European companies. This mediating role of the organisational context has not yet been sufficiently explored. Thirty company cases performing at the digital frontier were examined for their organisational model, technology, decision context, and handling of work impact. Companies with a workplace innovation model ensure that the impact of digital technology on employees is channelled differently from companies that follow a model of low investment, and low involvement. Workplace innovation cases let employees play a stronger role in shaping digital transformation. Cases investing in workplace innovation show more investment in digital technologies.

Keywords: organisational context, digital transformation, case study, skills

Chapter 3

Abstract

Workplace innovation is about implementing combined interventions in the domains of work organisation, human resources, and technology. In current times of digital transformation, the question arises of how to embed the new technologies in an integrated workplace innovation approach. A brief literature overview shows that the interplay between these three domains has received attention in recent literature on the ongoing digital transformation. To clarify the conceptual relation between the three domains, we focus on the concept of production disturbances. We present a definition of production disturbances and describe how disturbances can be dealt with. We elaborate on the potential impact of production disturbances on organisational performance and quality of working life. The impact of the Covid-19 pandemic is described in terms of the production disturbances it may cause. The division of work, human resources, and technology are identified as infrastructural conditions for preventing and handling production disturbances. The importance of a combined approach of these three infrastructural conditions is illustrated with recent case studies on virtual teams and workplace innovation in a machine production company. To conclude this chapter, we argue that a focus on production disturbances could improve our understanding of the potential impact of implementing new technologies on the autonomy of employees, as well as on organisational performance.

Production disturbances may thus be a key concept for further workplace innovation research in times of digital transformation and pandemic disruption.

Keywords: workplace innovation, digital transformation, production disturbances, technology, Covid-19

Chapter 4

Abstract

Under the prolonged influence of COVID-19, telework has become more common globally, though this workstyle is mainly for office workers. Human augmentation technology is expected to broaden the application targets of telework, including hospitality services with frequent human-to-human interactions. Especially avatar technologies attract more attention to reduce the infection risk and sustain business continuity. These technologies can realise close interactions between customers and employees remotely. They could bring a fundamental change in the workplace concept and new opportunities and challenges in human-technology cooperation at work. In this article, I present two cases of avatar technologies applied by Japanese companies. Based on the case study, I discuss the impact of avatar technologies on workstyle, skill development and well-being at workplaces, and required actions for workplace innovation. The research result implies that avatar technologies could enable employees to create new customer experiences without infection risks. In contrast, a new style of hospitality and the associated skill sets would be required. Adequate job design and a co-creative environment among employees and customers will effectively utilise avatar technologies at workplaces.

Keywords: augmented telework, avatar, COVID-19, human augmentation

Chapter 5

Abstract

New technological developments can have major consequences for work, which require an understanding of the 'new' skills of employees, the possible measures to counteract the negative effects on the quality of work, and optional choices regarding the use of technological applications and their embedding in work processes. This chapter shows how the Technology Impact Method (TIM) was applied in two case studies to qualitatively determine the impact of (future) technological developments on the tasks, required skills, and quality of work of engineers in the agri-food and energy network industries in The Netherlands. The TIM analysis shows that the new tasks of engineers require more data entering, use data and (virtual) support for maintenance and repair activities, and cooperation with other disciplines, such as suppliers. Most of the present skills of engineers remain important, but additionally, they need (basic) digital, analytical, communicative skills, and the ability and attitude to learning new things. Technological choice is an organisational choice that can reduce autonomy and make work less challenging, or it can increase work variety and learning opportunities, which depends on how the company uses the technology and organises the work processes.

Keywords: technology impact assessment; organisational choice; workplace innovation

Chapter 6

Abstract

COVID-19 has accelerated the use of digital technologies in work. Most often, digital technology is implemented in a technocentric manner, with little proactive attention to human issues. We propose that principles from work design can be used as criteria in the design and use of digital technology to better incorporate human needs whilst also helping to ensure an agile and adaptive system. Specifically, we draw on the SMART work design model, which proposes that high-quality work design has the following elements: Stimulating (work in which one uses and develops one's skills, has variety and challenge, etc.), Mastery-Oriented (work in which one is clear about one's responsibilities and receives feedback), Agentic (work in which one has autonomy, control, and influence over important aspects of one's work), Relational (work in which one has social contact, support, and connection), and Tolerable (work in which the emotional, cognitive, workload and physical demands are experienced as manageable). Based on this model, we identify criteria for the design, as well as the commissioning, purchasing, and implementation of technology to help ensure both quality work and the effective use of technology. We propose the use of this approach as a helpful participative mechanism for supporting Workplace Innovation in the digital era, and for extending the emphasis of WPI to more readily encompass technical innovation.

Keywords: work design, sociotechnical systems, workplace innovation

Chapter 7

Abstract

This study defined workplace innovation as an innovative process that encourages employees to take responsibility for continuously changing and improving the quality of their working life and increasing productivity. There is some discrepancy between the ideal of the Korean workplace innovation model and how workplace innovation is actually practised. In the ideal model, work organisation, on the one hand, and human resources development and management, on the other, are undergirded by employee participation. The integration of these components increases firm productivity and improves the quality of working life. However, in many Korean companies, the actual implementation of workplace innovation is not well-integrated with other aspects of the firm.

This study used Frontec, a mid-sized Korean manufacturing company, an auto parts manufacturer that produces nuts and tools for automobiles, as an explorative case study of how SMEs can apply a more desirable workplace innovation model. With a couple of more trials and with some help from outside workplace innovation experts, it finally achieved satisfactory outputs. It introduced the smart factory system and it faced some difficulties while introducing these various technologies. As a result of this workplace innovation, it improved working environments by increasing job quality and decreasing workloads. Finally, in Korean manufacturing firms, introducing workplace innovation and smart manufacturing technologies improve the working environment. In addition, we found employee participation based on workplace innovation is important in this process for making good economic performance and a good working environment, beneficial to both management and employees.

Keywords: workplace innovation, smart manufacturing system, socio-technical system, active job, working environments, employee participation

Chapter 8

Abstract

Workplace innovation informs an organisation's innovation culture, which indicates innovation does not function in isolation. It depends on the interaction between numerous actors, entities, and external stakeholders. In this chapter, the authors claim that from an innovation systems perspective, barriers to innovation, leadership characteristics, and organisational climate are activities that influence workplace innovation processes. These determinants are not independent of each other but instead support, reinforce, or offset one another. This chapter employs a cross-sectional study that analyses secondary data within Australian policy documents to determine the critical factors that stimulate or hinder workplace innovation across six Australian states and two territory governments during the Industry 4.0 Revolution. The findings reveal that the Australian Federal government has invested a remarkable amount of resources in promoting innovation in the public sector, as evidenced in the government initiatives. The systematic in-depth investigation reveals the dynamics of workplace innovation, which involves the following three major themes and their constituents. The first theme embraces barriers to innovation, which consists of staff resistance; severe rules and regulations; risks; old organisational models; lack of resources and support; lack of measurement tools; and budget and funding. The second theme addresses leadership characteristics, which is comprised of supportive risk-taker; passionate, practical and persistent; leading by example; influential and inspirational; decisiveness, courtesy and respect; and decision-making characteristics. The third theme is organisational climate, which consists of a culture of sharing; policies; organisation's size and structure; labs; and initiatives. This chapter heightens the practitioners' level of awareness regarding the complexities of the dynamics of innovation. And how this complexity should be linked to an equally intricate organisational climate and leadership approaches so as to minimise the potential barriers to innovation.

Keywords: innovation, leadership, organisational climate, public sector, workplace innovation

Chapter 9

Abstract:

Determining the way an organisation is oriented or how to change its orientation are several factors that influence organisational innovation. Thus, it is essential that management be able to assess the orientation to innovation of relevant organisational employees. A major component of an individual's orientation is their mental or psychological orientation. This chapter identifies an instrument that can be used to assess an individual's psychological orientation within an organisation. The instrument has been used, and assessed, in several different countries. Examples of the relationship between workplace innovation and various concepts have been identified in countries such as Australia, Pakistan, USA, Canada, Europe, Thailand and Vietnam. However, it is possible that an instrument of this nature may need to be modified to be fit for use in a different country, culture or other circumstances.

Apart from identifying the instrument and providing references to publications where it has been used and evaluated, the chapter provides an appendix that identifies how such instruments can be evaluated.

Keywords: psychology, measurement instrument, workplace innovation, instrument evaluation, method bias, PLS-SEM, CB-SEM, leadership, politics, profit sector, not-for-profit sector.

Chapter 10

Abstract

In this chapter, we adopt a psychological perspective to the study of workplace innovation (WPI) in Italy. Framing our contribution in the context of remote working and WPI before and during the COVID-19 emergency, we investigate how proactive behaviours (i.e., job crafting) transforming remote work resulted in different levels of work engagement during the pandemic. Three-wave longitudinal data were collected from 35 remote workers (N=105 observations). Results from multilevel analyses with Bayesian estimator showed that, at the beginning of the pandemic, remote working prompted employees to actively distance themselves from their work roles, which resulted in lower work engagement. On the other side, employees who proactively optimised their work processes reported higher engagement. By showing that job crafting can hinder or enhance the motivational outcomes resulting from abrupt changes and innovations, this contribution highlights the value of complementing the study of WPI with a psychological perspective that accounts for how employees re-interpret changes and innovations in their work.

Keywords: Job Crafting; Proactive Work Behaviours; Remote Working; Work Engagement; Workplace Innovation.

Chapter 11

Abstract

Organised work across Vietnam is undergoing a major disruptive transition to enable Vietnam's economy to sustain high productivity. Our chapter follows an organisational behaviour perspective proposing ethical leadership as a part of workplace innovation and unpacks the impact of ethical leadership on employee affective commitment and innovative work behaviours in Vietnam. We propose a research framework and test three hypotheses exploring the relationships among ethical leadership, employee affective commitment and innovative work behaviours in Vietnam. Our findings indicate that ethical leadership positively and significantly influenced both employee commitment and innovative work behaviour in Vietnam. We explain our findings by suggesting theoretical and practical implications and then propose future research directions for workplace innovation. Finally, we propose ways in which organisations in Vietnam and similar Asian contexts could navigate the uncertainties arising from the impact of the COVID-19 pandemic by crafting relevant policies that lead to sustainable success.

Key words: Workplace innovation; Industry 4.0; Ethical leadership; Innovative work behaviours; Affective commitment; Vietnam

Chapter 12

Abstract

The scientific and non-scientific literature on workplace innovation is reviewed and categorised against the type of research and the level of analysis. A description is provided of how the term workplace innovation is interpreted by authors who apply the term. For the distinguished categories of workplace innovation research, the prominent representative examples will be described, i.e. research that contributed to the understanding and dissemination of workplace innovation research. While there is variety in definitions, approaches and applications, models and tools, measurement, and operationalisation, the common ground is that workplace innovation is concerned with the 'advancement of work' and more or less contributes to a 'good jobs strategy'. With this in mind, the chapter outlines four social scientific research streams with 'work' as a central theme that are possibly connected to advanced work and good jobs, In particular sociology and organisation research, safety science and organisation research, economic strategy and human resources research, and psychology and behavioural research. It is concluded that convergence seems hard from a scientific point of view but looks desirable from a practical standpoint. After all, rarely anyone has opposing views of high-quality work.

Keywords: literature review, workplace innovation, categorisation, divergence, convergence

Chapter 13

Abstract

Despite many positive examples, the dissemination of workplace innovation is still rather limited. The market mechanism is not in itself capable of delivering workplace innovation. This chapter discusses the likely reasons, and the need for policies and interventions by governments and social partners at European and national levels. Workplace innovation connects different policy agendas such as productivity, innovation, skills, digitalisation, quality jobs, social dialogue and the European Pillar of Social Rights. Workplace innovation policies do not take the form of 'hard regulation' such as legislation but of 'soft regulation' in its various forms. In the Finnish, German and Scottish cases discussed in this chapter, 'learning network' approaches appear to be rather successful. There are more similarities than differences between the three cases, and the differences are mainly those of degree. Although strategic justifications differ slightly over time and between countries, the common rationale is that of rebalancing economic and innovation policies by embedding the complementarity of technological innovation and workplace innovation, emphasising the important role played by employee participation. These policies are being supplemented by action research as well as research into possible scenarios. The chapter concludes with research questions regarding the determinants of managerial choices and the interplay between the innovation policy, the industrial relations system and the research system. A final category of research lies in better evaluation of programmes, including studies to identify long-term and indirect impacts of interventions, examining the extent to which they are able to create a sustainable momentum of change.

Keywords: workplace innovation, public policy, programmes, learning networks, research

Chapter 14

Abstract

This final chapter reviews the book's twelve chapters' approach to workplace innovation. The book shows there is much variety in the field. While this hampers convergence in research, it is at the same time a richness. The future requires a global conversation on workplace innovation among the stakeholders, instead of a detailed listing of research questions and issues. After all, insights into workplace innovation should be made actionable for practice and policy. And since there is a huge variety in the type of possible intervention with the workplace innovation concept, it is perhaps not desirable to streamline the pervasive field into a limited number of research avenues. Therefore, this chapter, in fact, the whole book, is an invitation to further cooperation and co-innovation in the workplace innovation field among researchers, consultants, policy-makers, and practitioners from industries.

Keywords: workplace innovation, agenda, social innovation, research, consultancy, policy, digitalisation, theory