
The New Workplace

A Guide to the Human Impact of Modern Working Practices

Edited by

**David Holman, Toby D. Wall and
Chris W. Clegg**

University of Sheffield, UK

Paul Sparrow

University of Manchester, UK

and

Ann Howard

*Development Dimensions International,
New Jersey, USA*



The New Workplace

The New Workplace

A Guide to the Human Impact of Modern Working Practices

Edited by

**David Holman, Toby D. Wall and
Chris W. Clegg**

University of Sheffield, UK

Paul Sparrow

University of Manchester, UK

and

Ann Howard

*Development Dimensions International,
New Jersey, USA*



Copyright © 2003 John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester,
West Sussex PO19 8SQ, UK

Telephone (+44) 1243 779777

Email (for orders and customer service enquiries): cs-books@wiley.co.uk

Visit our Home Page on: <http://www.wileyeurope.com> or <http://www.wiley.com>

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except under the terms of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London W1T 4LP, UK, without the permission in writing of the Publisher. Requests to the Publisher should be addressed to the Permissions Department, John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex PO19 8SQ, England, or e-mailed to permreq@wiley.co.uk, or faxed to (+44) 1243 770620.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold on the understanding that the Publisher is not engaged in rendering professional services. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Other Wiley Editorial Offices

John Wiley & Sons Inc., 111 River Street, Hoboken, NJ 07030, USA

Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741, USA

Wiley-VCH Verlag GmbH, Boschstr. 12, D-69469 Weinheim, Germany

John Wiley & Sons Australia Ltd, 33 Park Road, Milton, Queensland 4064, Australia

John Wiley & Sons (Asia) Pte Ltd, 2 Clementi Loop #02-01, Jin Xing Distripark, Singapore 129809

John Wiley & Sons Canada Ltd, 22 Worcester Road, Etobicoke, Ontario, Canada M9W 1L1

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Library of Congress Cataloging-in-Publication Data

The new workplace : a guide to the human impact of modern working practices / edited
by David Holman . . . [et al.].

p. cm.

Includes bibliographical references and indexes.

ISBN 0-471-48543-8

1. Quality of work life. 2. Job satisfaction. 3. Psychology, Industrial. 4. Work environment.
5. Work design. 6. Human-machine systems. 7. Industrial relations. I. Holman, David.

HD6955 .N495 2002

331.2-dc21

2002028874

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN 0-471-48543-8

Typeset in 10/12pt Times by Techbooks Electronic Services Pvt Ltd, New Delhi, India

Printed and bound in Great Britain by Biddles Ltd, Guildford and King's Lynn

This book is printed on acid-free paper responsibly manufactured from sustainable forestry in which at least two trees are planted for each one used for paper production.

Contents

List of Figures	vii
List of Tables	viii
About the Editors	ix
List of Contributors	xi
Preface	xiii

Part I Introduction

Chapter 1	The New Workplace: An Introduction	3
	<i>David Holman and Stephen Wood</i>	

Part II Modern Working Practices in the Workplace

Chapter 2	Workers Under Lean Manufacturing	19
	<i>Rick Delbridge</i>	
Chapter 3	The Human Side of Total Quality Management	37
	<i>Richard Cooney and Amrik Sohal</i>	
Chapter 4	Advanced Manufacturing Technology	55
	<i>Bradley Chase and Waldemar Karwowski</i>	
Chapter 5	Supply-chain Partnering	71
	<i>Máire Kerrin and Belén Icasati-Johanson</i>	
Chapter 6	Team Work	95
	<i>John Cordery</i>	
Chapter 7	Call Centres	115
	<i>David Holman</i>	
Chapter 8	Knowledge Management	135
	<i>Harry Scarbrough</i>	
Chapter 9	Employee Involvement: Utilization, Impacts, and Future Prospects	155
	<i>George S. Benson and Edward E. Lawler III</i>	

Chapter 10	Proactivity and Innovation: Promoting a New Workforce for the New Workplace <i>Kerry L. Unsworth and Sharon K. Parker</i>	175
Chapter 11	Teleworking and Virtual Organisations: The Human Impact <i>David Lamond, Kevin Daniels and Peter Standen</i>	197
Chapter 12	Performance Management Practices and Motivation <i>Robert D. Pritchard and Stephanie C. Payne</i>	219
Chapter 13	e-business: Future Prospects? <i>Chris W. Clegg, Belén Icasati-Johanson and Stuart Bennett</i>	245
 Part III Organisational Performance and Productivity		
Chapter 14	Organisational Performance and Manufacturing Practices <i>Stephen Wood</i>	271
Chapter 15	Organisational Performance in Services <i>Rosemary Batt and Virginia Doellgast</i>	291
Chapter 16	The Human Resource–Firm Performance Relationship: Methodological and Theoretical Challenges <i>Patrick M. Wright and Timothy M. Gardner</i>	311
 Part IV Tools and Methods for Design and Evaluation		
Chapter 17	Tools and Methods to Support the Design and Implementation of New Work Systems <i>Enid Mumford and Carolyn Axtell</i>	331
Chapter 18	Examining New Technologies and New Ways of Working: Methods for Designing Evaluation Studies <i>Sabine Sonnentag</i>	347
 Part V Reflection and Critique		
Chapter 19	The Future of Work? <i>Paul Sparrow</i>	371
Chapter 20	Any Nearer a “Better” Approach? A Critical View <i>Karen Legge</i>	393
Chapter 21	The New Workplace: Taking Stock and Looking Forward <i>David Holman, Toby D. Wall and Ann Howard</i>	413
Author Index		427
Subject Index		445

List of Figures

Figure 2.1	Key organizing principles of lean manufacturing	27
Figure 4.1	A framework for competitive advanced manufacturing enterprise	65
Figure 10.1	Innovation and proactivity: summary of influential factors and good practices	180
Figure 11.1	Conceptual overview of behavioural issues in teleworking	202
Figure 12.1	A theory of motivation	221
Figure 12.2	Example of connections between different parts of the motivation theory	224
Figure 12.3	Basic practices and the theory of motivation	233
Figure 12.4	TQM and empowerment and the theory of motivation	237
Figure 12.5	Knowledge management and autonomous workgroups and the motivation model	239
Figure 12.6	ProMES and the motivation model	241
Figure 13.1	Model of e-adoption ladder	248
Figure 16.1	Architectural approach to HRM	314
Figure 16.2	Model of the HR–firm performance relationship	320

List of Tables

Table 1.1	Definition of the modern working practices covered in this book	4
Table 2.1	Ohno's comparison of production systems at Toyota and Ford	20
Table 2.2	What is lean production?	22
Table 2.3	MacDuffie's measures of work systems and HRM policies	28
Table 4.1	The HITOP framework	64
Table 5.1	Features of arm's-length contract relations and obligational contract relations	73
Table 5.2	Models of customer-supplier relations	75
Table 7.1	Characteristics of relationships and encounters	118
Table 7.2	Call centre models: "mass service" and "high commitment service"	122
Table 7.3	Individual and collective forms of CSR resistance to management control	128
Table 8.1	Perspectives on KM	139
Table 8.2	Knowledge management strategies	147
Table 8.3	The future agenda for KM	151
Table 9.1	Surveys used to research EI and organizational performance	158
Table 11.1	Types of telework and sample jobs	200
Table 11.2	Predicting forms of telework from Quinn's (1988) competing values framework	204
Table 12.1	Implication of theory to maximize motivation	226
Table 12.2	Implication of motivation theory for various practices	231
Table 13.1	Rates of uptake of e-business and related issues	249
Table 13.2	International uptake of e-business	252
Table 13.3	External barriers and enablers of e-business	254
Table 13.4	Use and effectiveness of selected modern working practices	261

About the Editors

David Holman is a Research Fellow at the Centre for Organisation and Innovation, which is part of the Institute of Work Psychology at the University of Sheffield. He obtained his degree in psychology, diploma in personnel management and doctorate from Manchester Metropolitan University. His main research interests are job design, well-being and emotions at work, learning at work, and management education and development. He is the author of *Management and Language: The Manager as a Practical Author* and has published articles in the *Journal of Occupational and Organisational Psychology*, *Human Relations*, *Management Learning*, *Human Factors and Ergonomics in Manufacturing* and *Applied Ergonomics*.

Toby D. Wall is Professor of Psychology at the University of Sheffield, where he is Director of the Institute of Work Psychology and the ESRC Centre for Organisation and Innovation. He obtained his first degree and his doctorate from the University of Nottingham. His main research interests have been in industrial and organisational psychology and have recently focused on the effects of advanced manufacturing technology and shop floor work organisation on work performance and strain. His research has appeared in the *Journal of Applied Psychology*, the *Academy of Management Journal* and other leading publications. He also the author of several books including *The Human Side of Advanced Manufacturing Technology* and *Job and Work Design*.

Chris W. Clegg is Professor of Organisational Psychology and Deputy Director of the Institute of Work Psychology at the University of Sheffield. He is a Co-Director of the ESRC Centre for Organisation and Innovation, and Co-Director of the BAE—Rolls-Royce University Technology Partnership for Design. He currently chairs the Sociotechnical Sub-Group of the British Computer Society. He holds a BA (Hons) in Psychology from the University of Newcastle upon Tyne and an MSc in Business Administration from the University of Bradford. He is a Fellow of the British Psychological Society and a chartered psychologist. Chris Clegg's research interests are in the areas of new technology, work organisation, information and control systems, sociotechnical theory and new management practices. He has published his work in a number of books and journals.

Paul Sparrow is the Ford Professor of International Human Resource Management at Manchester Business School. He graduated from the University of Manchester with a BSc (Hons) in Psychology and the University of Aston with an MSc in Applied Psychology and was then sponsored by Rank Xerox to study the impacts of ageing on the organisation for his Ph.D. at Aston University. He has written and edited a number of books including *European Human Resource Management in Transition*, *The Competent Organization: A Psychological Analysis of the Strategic Management Process* and *Human Resource Management: The New Agenda*. He has also published articles in leading journals on the future of work,

human resource strategy, the psychology of strategic management, international human resource management and cross-cultural management. He is currently Editor of the *Journal of Occupational and Organisational Psychology*.

Ann Howard is Manager of Assessment Technology Integrity for Development Dimensions International (DDI), a leading provider of human resource programs and services. She has served as president of the Leadership Research Institute, a non-profit organization that she co-founded in 1987. Ann is the author of more than 85 publications on topics such as assessment centers, management selection, managerial careers, and leadership. She is the senior author (with Dr Douglas W. Bray) of *Managerial Lives in Transition: Advancing Age and Changing Times*, which received the George R. Terry Award of Excellence from the Academy of Management in 1989. She has edited two books: *The Changing Nature of Work* (1995) and *Diagnosis for Organizational Change: Methods and Models* (1994). She is a past president of the Society for Industrial and Organizational Psychology and the Society of Psychologists in Management. Ann received her Ph.D. degree from the University of Maryland and her MS degree from San Francisco State University, both in industrial-organizational psychology. She holds an honorary doctor of science degree from Goucher College, where she earned a BA degree in psychology.

List of Contributors

Carolyn Axtell, *Institute of Work Psychology, University of Sheffield, Mushroom Lane, Sheffield S10 2TN, UK*

Professor Rosemary Batt, *School of Industrial and Labor Relations, Cornell University, 387 Ives Hall, Ithaca, NY 14853, USA*

Dr Stuart Bennett, *Automatic Control and Systems Engineering, University of Sheffield, Mappin Street, Sheffield S1 3JD, UK*

Dr George S. Benson, *Department of Management, The University of Texas at Arlington, College of Business, BOC 19467, Arlington, TX 76019, USA*

Dr Bradley Chase, *Industrial and Systems Engineering, University of San Diego, 5998 Alcalá Park, San Diego, CA 92110–2492, USA*

Professor Chris W. Clegg, *Institute of Work Psychology, University of Sheffield, Mushroom Lane, Sheffield S10 2TN, UK*

Dr Richard Cooney, *Department of Management, Monash University, Caulfield Campus, 900 Dandenong Road, East Caulfield, Victoria 3145, Australia*

Professor John Cordery, *Department of Organizational and Labour Studies, University of Western Australia, Nedlands, Perth, WA 6907, Australia*

Dr Kevin Daniels, *Nottingham University Business School, University of Nottingham, Wollaton Road, Nottingham NG8 1BB, UK*

Professor Rick Delbridge, *Cardiff Business School, Cardiff University, Colum Drive, Cardiff CF10 3EU, UK*

Virginia Doellgast, *School of Industrial and Labor Relations, Cornell University, 387 Ives Hall, Ithaca, NY 14853, USA*

Dr Timothy M. Gardner, *Marriott School of Management, Brigham Young University, Tanner Building, Provo, UT 84602–3113, USA*

Dr David Holman, *Institute of Work Psychology, University of Sheffield, Mushroom Lane, Sheffield S10 2TN, UK*

Dr Ann Howard, *Development Dimensions International, 21 Knoll Road, Tenafly, NJ 07670, USA*

Belén Icasati-Johanson, *Institute of Work Psychology, University of Sheffield, Mushroom Lane, Sheffield S10 2TN, UK*

Professor Waldemar Karwowski, *Center for Industrial Ergonomics, University of Louisville, Room 445, Lutz Hall, KY 40292, USA*

Dr Máire Kerrin, *Institute for Employment Studies, Mantell Building, Falmer, Brighton BN1 9RF, UK*

Professor David Lamond, *Sydney Graduate School of Management, University of Western Sydney, PO Box 6145, Paramatta Delivery Centre, NSW 2150, Australia*

Professor Edward E. Lawler III, *Center for Effective Organizations, Marshall Business School, University of Southern California, Los Angeles, CA 90089-1421, USA*

Professor Karen Legge, *Industrial Relations and Organisational Behaviour Group, Warwick Business School, University of Warwick, Coventry CV4 7AL, UK*

Professor Enid Mumford, *Manchester Business School, University of Manchester, Booth Street West, Manchester M15 6PB, UK*

Dr Sharon K. Parker, *Australian Graduate School of Management, University of New South Wales, Sydney, NSW 2052, Australia*

Dr Stephanie C. Payne, *Department of Psychology, Texas A&M University, 4235 TAMU, College Station, Texas 77843-4235, USA*

Professor Robert D. Pritchard, *Department of Psychology, Texas A&M University, 4235 TAMU, College Station, Texas 77843-4235, USA*

Professor Harry Scarbrough, *Warwick Business School, Warwick University, Coventry CV4 7AL, UK*

Professor Amrik Sohal, *Department of Management, Monash University, Caulfield Campus, 900 Dandenong Road, East Caulfield, Victoria 3145, Australia*

Professor Sabine Sonnentag, *Technical University of Braunschweig, Institute of Psychology, Spielmannstrasse 19, D-38092 Braunschweig, Germany*

Professor Paul Sparrow, *Manchester Business School, University of Manchester, Booth Street West, Manchester M15 6PB, UK*

Dr Peter Standen, *Department of Management, Edith Cowan University, Pearson St Churchlands, WA 6018, Australia*

Dr Kerrie L. Unsworth, *School of Management, Queensland University of Technology, PO Box 2434, Brisbane, Queensland 4001, Australia*

Professor Toby D. Wall, *Institute of Work Psychology, University of Sheffield, Mushroom Lane, Sheffield S10 2TN, UK*

Professor Stephen Wood, *Institute of Work Psychology, University of Sheffield, Mushroom Lane, Sheffield S10 2TN, UK*

Professor Patrick M. Wright, *Human Resource Studies, 387 Ives Hall, Cornell University, ILR School, Ithaca, NY 14853-3901, USA*

Preface

The make-up of today's workplace is characterised by the use of a wide array of modern working practices and technologies. Lean manufacturing, total quality management, advanced manufacturing technology, call centres, team working, knowledge management and e-business are just a few of the practices that organisations are using in their search for effectiveness. The introduction and use of these practices has provoked much debate and research on their nature and effects. A consistent theme within this has been that the social, psychological and organisational aspects of modern working practices and technologies must be considered in order to understand, design and manage them effectively. In order to bring this research together in one volume, we have invited leading authors from around the world to provide an up-to-date assessment of research on the main working practices that are shaping today's workplace. Where authors have been invited to write on a particular practice, we have asked them to comment on its extent, to review its impact on employees' experience of work and to consider the human resource management implications of the practice. This book also focuses on the effects that modern working practices have on performance. Thus, where possible, chapters on individual working practices consider their impact on performance. In addition, a series of chapters are devoted to examining whether modern working practices and human resource practices have an effect on organisational performance in manufacturing and service sectors. We also wanted the book to have a practical focus and so included a section on the tools and methods that can be used to jointly design and evaluate the social and technical aspects of working practices.

The breadth of working practices covered, the multi-disciplinary nature of the chapters, the focus on performance and the practical suggestions on design and evaluation distinguish this book from others. We believe that this will help the reader gain a comprehensive understanding of the social, psychological and organisational aspects of modern working practices. Ultimately, though, this book is designed to make a contribution to the understanding, design and effective management of modern working practices. The book's breadth will appeal to those with an interest in industrial/organisational psychology, human resource management, management and business studies, manufacturing, production engineering and change management, as well as those who are involved in the design, implementation and effective management of innovative working practices.

The editors would like to state that this book is part of the programme of the ESRC Centre for Organisation and Innovation, at the Institute of Work Psychology, University of Sheffield, UK. The editors therefore acknowledge the support of the Economic and Social Research Council (ESRC) (UK). David Holman would particularly like to thank the

Holman family, Curtis Wilson, David Wilson, Julia Eaton and Kate Fields for their support throughout all the stages of writing this book.

David Holman
Toby D. Wall
Chris W. Clegg
Paul Sparrow
Ann Howard

Introduction

The New Workplace: An Introduction

David Holman and Stephen Wood

Institute of Work Psychology, University of Sheffield, UK

Modern working practices and technologies are typically implemented because they have a significant capacity to shape the nature of work and its effect on individuals' behaviour. They include, for example, lean manufacturing, advanced manufacturing technology, total quality management (TQM), call centres, supply-chain partnering (SCP), knowledge management and e-business. Furthermore, surveys show that these practices are increasingly prevalent in organisations in advanced industrial societies (Lawler, Mohrman & Ledford, 1995; Osterman, 1994; Waterson *et al.*, 1999). Yet when modern working practices are implemented they can sometimes alter work in unintended ways, have deleterious effects on employees and not produce the hoped for improvements in employee and organisational performance (Clegg *et al.*, 1997; Parker & Wall, 1998; Waterson *et al.*, 1999). Indeed, the design, implementation and management of modern working practices often create problems for employees at all levels in the organisation. It therefore seems essential that we understand the nature of modern working practices, the effects that they have on employees, the extent of their use, their effect on organisational performance, and how they can be more effectively designed, implemented, evaluated and managed.

Needless to say, considerable research has already been conducted on these issues in disciplines such as human resource management, occupational psychology, strategic management, operations management and sociology; and one of the strongest messages to come out of this research is that the social, psychological and organisational aspects of working practices and technologies must be considered in order to understand, design and manage them effectively (Cherns, 1987; McLoughlin & Harris, 1997; Salvendy, 1997; Storey, 1994; Wall, Clegg & Kemp, 1987). As such, the main premise of this book is that the human side of workplace practices and technologies must be addressed. To do this, the book has the following five aims:

1. To examine the nature and extent of modern working practices and technologies.
2. To review and evaluate the impact modern working practices have on how people work and their experience of work.
3. To examine the human resource management implications of such practices.
4. To examine the effect that these practices have on productivity and firm performance.

Table 1.1 Definition of the modern working practices covered in this book

Modern working practice	Definition
Lean manufacturing	An integrated system of production with a single production flow that is pulled by the customer. Emphasis on small batch manufacture, just-in-time, team-based work and participation to eliminate non-value-adding activities and variabilities
Total quality management	A comprehensive, organisation-wide effort that is an integrated and interfunctional means of improving the quality of products and services and of sustaining competitive advantage
Advanced manufacturing technology	The application of computer-based technology to automate and integrate the different functions in the manufacturing system
Supply-chain partnering	Developing long-term, cooperative relationships with suppliers and customers
Team work	A collection of individuals who are interdependent in their tasks and outcomes, who see themselves and are seen by others as a distinct social entity within a larger social unit
Call centres	A work environment in which the main business is mediated by computer and telephone-based technologies that enable the efficient distribution of calls (or allocation of outgoing calls) to available staff, and permits customer–employee interaction to occur simultaneously with the use of display screen equipment and the instant access to, and inputting of, information
Knowledge management	The use of practices, particularly IT-based technologies and community- and network-based practices, to centralise, collectivise and create knowledge so that it can be exploited to increase the organisational performance and to develop new opportunities
Employee involvement and empowerment	The use of practices to increase employee control, participation and involvement, and the supply of personal and organisational resources necessary to do the job
Teleworking	Working remotely from the home, remote offices or other sites for all or most of the working week, and connected to the main organisation by telephone and computer technologies
Performance management	A range of practices an organisation engages in to enhance the performance of a target person or group, with the ultimate purpose of improving organisational performance
e-business	The conduct of business transactions and activities using, in large part, electronic means, and typically involving use of the internet and world wide web

5. To review different methods, tools and principles that can be used to guide the design, implementation and evaluation of modern working practices.

These aims are covered throughout the book. But Part II, Modern Working Practices in the Workplace, focuses particularly on the first three aims. The practices examined in Part II are defined in Table 1.1. They were chosen for a variety of reasons and these include being relatively new, being widely practised and having the potential to significantly impact upon the nature of work. The chapters cover the most important issues and debates pertinent to the human side of modern working practices today. Part III is primarily concerned with

the fourth aim of the book, the relationship between modern working practices, human resource management and organisational performance. The first two chapters in Part III examine the impact of modern working practices in the manufacturing and service sectors, while the third considers the impact of human resource practices.

Part IV meets the fifth aim of the book by illustrating some of the tools and methods that can be used to contribute to the effective design, implementation and evaluation of new working practices. The tools and methods outlined all attempt to give explicit attention to the social, human and organisational aspects of the new ways of working, areas of concern often neglected by managers and technologists. Finally, the concluding section, Part V, looks to the future. It does this first by considering how future economic conditions and organisational forms might affect employee behaviour and human resource practice; second, by critically evaluating the research, including that covered in this book, from a Critical perspective; and third, by identifying fruitful avenues for future research.

The rest of this chapter is devoted to setting out the context in which modern working practices have been implemented, and some of the main debates and issues that have concerned researchers when examining them.

CHANGE AND CONTINUITY IN THE WORKPLACE

Most of us are now fairly well versed in the changes occurring in the economic, political and social landscape. These include: the internationalisation of the economy; a reduction in trade barriers between countries; the deregulation of markets; privatisation and the ending of state monopolies; increasing demands for greater accountability and efficiency in the public sector; demographic changes in the workforce (e.g. increased female participation, better educated workforce); and changing consumer demand (e.g. a desire for more customised products, for better quality) (Doganis, 2000; Gabriel & Lang, 1998; Katz, 1997; Pollitt, 1993). These changes have intensified competition. They have also meant that much competition has become based on cost *and* quality, innovation and customisation (Appelbaum & Batt, 1994; Piore & Sabel, 1984). Similar demands for cost efficiencies, quality and customized services are evident in the public and not-for-profit sectors (Peters, 1992). In addition, knowledge is increasingly recognised as a basis for competition and it is thought that, in many industrial sectors, competitive advantage will primarily flow from the creation, ownership and management of knowledge-based assets (see Scarbrough, Chapter 8, on Knowledge Management).

In response to these changes and the expectation of these changes (Sparrow & Cooper, 1998), it is claimed that many organisations have sought to move away from Fordist, large-scale, hierarchical bureaucracies of mass production and mass service, and towards flexible organisations that can respond quickly and efficiently to rapidly changing market and consumer demands (Amin, 1994; Kumar, 1992; Schneider & Bowen, 1995). Flexibility is seen as a key component of organisational effectiveness. Managers have sought to achieve organisational flexibility by experimenting with new organisational forms and new working practices. There are a number of flexibilities that organisations have sought (Sparrow & Marchington, 1998):

- *Structural flexibility*, by introducing, either together or in isolation, flatter hierarchies and horizontal coordination between units; modular structures that can be reconfigured as new

- projects or problems arise; joint ventures; temporary alliances; and inter-organisational networks (McPhee & Poole, 2000). Team working (e.g. cross-functional teams, project-based teams, virtual teams) (Chapter 6), supply-chain partnering (Chapter 5) and e-business (Chapter 13) are working practices that can help achieve structural flexibility.
- *Functional flexibility*, by introducing working practices that enable effective responses to changes in demand, supply and work load. Advanced manufacturing technology (AMT) (Chapter 4), lean manufacturing (Chapter 2) and multi-skilled teams (Chapter 6) would help achieve this aim.
 - *Numerical flexibility*, through the use of part-time and temporary employees, outsourcing and various relationships with outside partners. Supply-chain partnering (SCP) would aid the achievement of this.
 - *Geographical flexibility*, so that work may be dispersed to where it can be carried out most effectively, e.g. by introducing telework and virtual teams (Chapters 6 and 11).
 - *Jobs-based flexibility*, by creating jobs with greater control, broader responsibility and higher skill requirements, so that employees can control variances as they arise. This could be achieved, for example, by implementing employee empowerment and involvement initiatives (Chapter 9).

In addition to greater flexibility, different structures and practices also been used to improve quality (e.g. through TQM, SCP, call centres), to manage and exploit knowledge (e.g. through knowledge management programmes, TQM, lean manufacturing, job empowerment) and to contain and manage costs (e.g. through TQM, lean manufacturing, call centres). Management have therefore been seeking to improve organisational effectiveness on a number of fronts through the introduction of a range of working practices.

Yet the introduction of new working practices may not be sufficient to ensure success. It has often been argued that modern working practices are most effective, indeed, can only be effective, when underpinned by a highly skilled and committed workforce and when accompanied by appropriate human resource management practices (Becker & Huselid, 1998; Lawler, Mohrman & Ledford, 1995; Steedman & Wagner, 1987; Walton, 1985). Furthermore, as new technologies and practices become more widely used, the value added by the human resource becomes critical to competitive success, as the skills of the human resource may not be copied readily (Boxall, 1996; Klein, Edge & Kass, 1989; Porter, 1985).

There are a number of reasons for believing that a highly skilled and committed workforce is essential to the effective running of modern working practices. First, as modern working practices and technologies are often complex and can present the user with difficult problems, there is a need for a high level of technical skill as well as higher-order cognitive abilities, such as problem solving, critical thinking and analytical skills. Second, practices such as advanced manufacturing technology, teamwork, supply-chain partnering and job empowerment increase intra- and inter-organisational interdependencies, while social and relational networks are now viewed as crucial to the generation and sharing of knowledge (see Scarbrough, Chapter 8). This implies that interpersonal relationships must be managed effectively and that trust be developed (Hosmer, 1995; see also Chapter 5 on supply-chain partnering). To achieve this, high levels of communication and interpersonal skills are required. Third, the requirement to continuously improve processes, products and services that is embedded in much modern management (e.g. TQM) means that employees need

to be creative and innovative (see Chapter 10; Amabile, 1988; West & Farr, 1990; Wolfe, 1994). Fourth, as new practices can increase the degree of discretion and responsibility, employees must be able to regulate their own behaviour (i.e. to act without close supervision and management control), respond to variances in the work process as they occur and exhibit discretionary behaviours (Susman & Chase, 1986). This means that employees need to be proactive (see Chapter 10), have the skills to deal with variances in the work process and have the skills necessary to engage in discretionary behaviour.

Given the proposed importance of a skilled and committed workforce, human resource management practices are now viewed as playing a necessarily crucial role in securing, maintaining and developing an organisation's skill base through well-resourced selection and recruitment procedures, high levels of initial and continued training, and performance management practices (see Chapter 12). The use of human resource management to secure, maintain and develop a highly skilled and committed workforce has been labelled a "high commitment" or "high involvement" approach (see Chapters 9, 14, 15, 16; Lawler, 1986; Walton, 1985). A number of surveys have documented the increasing use of human resource practices that are associated with this and the way these may be linked to modern working practices and operational management methods.

Organisational change is undoubtedly taking place but the jury is still out on the extent to which this represents a radical change across the whole economy (see Fincham & Rhodes, 1992). First, the continued influence of Taylorist and Fordist ideas would challenge such a view, e.g. in the service sector, some call centres represent an advanced form of Taylorism (Taylor & Bain, 1999) and the "McDonaldization" of service work has been well documented (Ritzer, 1998). Likewise, just-in-time (JIT), an essential component of lean manufacturing, can be viewed as an extension and revitalisation of Fordist principles, rather than a break from them (Tomaney, 1994; Wood, 1989). The "new workplace" is, so the argument would go, a mixture of "old" and "new" working practices (Blyton & Turnbull, 1994). Second, even where new practices are being introduced, this may not always be done as a package. Modern flexible working practices, in particular, may not necessarily be accompanied by high-commitment human resource practices, or vice versa. However, it is precisely the integration of these two facets that fundamentally transforms workplaces (Lawler *et al.*, 1995; Storey, 1994; see also Wood, Chapter 14). Just as there are questions about the extent and nature of workplace change, questions are also being asked about whether the effects of change are as beneficial as many imply (Philimore, 1989). Modern working practices and high commitment human resource practices are often portrayed as leading to a win-win situation for the employee and the organisation. But while there are accounts demonstrating that the introduction of modern working practices can lead to more interesting work, more highly skilled work and lower levels of stress, there is also research showing that the introduction of modern working practices can intensify work, de-skill employees and lower their well-being (Adler & Borys, 1996; Braverman, 1974; Klein, 1989; Knights, Willmott & Collinson, 1985; Parker & Wall, 1998; Sturdy, Knights & Willmott, 1992). A modern working practice can have different effects. The effects of a flexible working practice are dependent on how it is implemented, designed and managed and are not solely dependent on some intrinsic feature of the working practice itself.

In summary, as organisations have sought to adapt to changing economic and social circumstances, they have become a patchwork of "new" working practices, "old" working

practices, “new” working practices that are extensions of old principles and ideas, and different types of human resource management practice. In addition, there appears to be no straightforward relationship between a working practice and its effects.

Two perspectives that have helped in understanding this complex picture are (a) job design theory and (b) research that has examined the link between human resource management and organisational performance. Job design theory is important, as the effects of a working practice are significantly affected by the job design of the working practice in question (Parker & Wall, 1998). This means that, for a full understanding of why working practices have varying effects in different contexts, it is necessary to establish the job characteristics present in a particular working practice and the processes by which job characteristics are related to specific outcomes. Job and work design is also an important factor in research examining the human resource (HR)–organisational performance link. This research is important, as it draws together two key characteristics of organisational change over the last 30 years (i.e. the movement towards flexible working practices and high-commitment HR practices), and seeks to explain their separate and joint effects on firm performance.

The following sections outline the main issues and theories in job design theory and focus on research examining the HR–organisational performance link. The issues and themes within them run throughout many of the chapters in Parts II and III. In particular, job design theory is central to many of the debates in Part II, while the issues and debates regarding the HR–performance link are central to Part III. An appreciation of these areas is therefore crucial to understanding many of the chapters in this book.

JOB AND WORK DESIGN THEORY

Historically, the main focus of job design research has been on the psychological consequences of work simplification brought about through the pervasive adoption of Taylorist and Fordist approaches to work organization. Two approaches, job characteristics and socio-technical theories, have been particularly influential (for fuller discussion of the main job design traditions, their limitations and future prospects, see Holman *et al.*, 2002; Parker *et al.*, 2001).

The job characteristics approach to job design has been strongly influenced by Hackman & Oldham’s (1976) Job Characteristics Model (JCM). They proposed five core job dimensions (autonomy, feedback, skill variety, task identity, task significance) and these are seen to be determinants of three “critical psychological states”: autonomy to experienced responsibility; feedback to knowledge of results; and skill variety, task identity and task significance to experienced meaningfulness. Collectively, these critical psychological states are seen to affect work satisfaction, internal work motivation, performance, absence and turnover. Research has generally demonstrated the effect of core job characteristics on affective outcomes (satisfaction, motivation) but the effects on employee behaviour (performance, turnover, absence) are less consistent (Parker & Wall, 1998). The motivating potential of job design has been an central issue within this research tradition (Campion & McClelland, 1993; Wall & Martin, 1987), as it also has been within debates on modern working practices and high-commitment human resource practices. Pritchard & Payne address this important issue in Chapter 12. In particular, they examine how modern working practices and human resource practices affect employee motivation.

Karaseck & Theorell's (1990) control-demands model is another job characteristic approach that has been influential¹. It predicts that "high-strain jobs" are those characterised by high work demands and low control. Although the evidence for a proposed interactive effect of control and demand is inconclusive (Van Der Doef & Maes, 1999), numerous studies have confirmed that the absence of control and the presence of high job demands are consistent predictors of job-related strain (O'Driscoll & Cooper, 1996).

The second main approach to job design has been socio-technical theory. Socio-technical theory is concerned with the design of work systems and posits that it is comprised of a technical system and a social system. These subsystems are seen as interdependent and should therefore be jointly designed in such a way that the overall system is optimal (de Sitter, den Hertog & Dankbaar, 1997). Socio-technical theory has made a number of contributions to our understanding of job design. It is best known for its articulation of a set of design principles (Cherns, 1987; Clegg, 2000); for a set of criteria of what comprises a well designed job; and for the innovation of autonomous work groups (Emery, 1964). Its design principles include: methods of working should be minimally specified; variances in work processes should be handled at source; and boundaries should not be drawn to impede the sharing of information, learning and knowledge. Desirable job characteristics are thus assumed to be a reasonable level of demand, opportunities for learning, an area of decision-making owned by the operator, and social support and recognition. These principles of design and desirable job characteristics are seen to be best expressed in autonomous work groups (AWGs), and much socio-technical research and practice has been focused at a group level. Although it has been suggested that an 'underlying lack of specificity about the nature and effects of such initiatives (i.e. AWGs) makes a coherent assessment of their outcomes difficult' (Parker, Wall & Cordery, 2001, p. 416), research demonstrates that AWGs can have positive effects on well-being and productivity (Parker & Wall, 1998).

An important focus of the job characteristic and socio-technical approaches has been job redesign (e.g. enlargement, job enrichment, AWGs) and the tools necessary to do this. Mumford & Axtell in Chapter 17 explore tools that can be used for job redesign. It can also be noted here that organisations often fail to properly evaluate the effect of interventions, and thus valuable information about how the practice could be improved may be lost. To address this, Sonnentag in Chapter 18 examines the different ways that organisations and researchers can evaluate the effectiveness of new working practices.

Another notable feature of job design research is that it has reflected many of the debates and issues concerned with the changing nature of work. For example, the recent interest in cognition and knowledge at work has focused attention on:

- Cognitive and knowledge-based job characteristics, such as problem-solving demands, attention demand, (Jackson *et al.*, 1993), non-routine knowledge work (Mohrman, Cohen & Mohrman, 1995), knowledge intensity (see Lamond, Daniels & Standen, Chapter 11) and the opportunity to develop and utilise skills (O'Brien, 1986).
- Knowledge-based job outcomes, e.g. skill, self-efficacy (Parker & Wall, 1998).
- Knowledge based-mechanisms that link job characteristics to job outcomes, i.e. jobs with high control and challenging demands promote the development of skills and knowledge

¹ Other job characteristic approaches include social information processing theory (Salanick & Pfeffer, 1978) and the multi-disciplinary approach of Campion and colleagues (Campion & McClelland, 1993; Medsker & Campion, 1997). The latter approach categorises job characteristics into "mechanistic" (e.g. specialisation of tools and procedures, skill simplification, repetition), "motivational" (e.g. autonomy, job feedback, social interaction, task clarity, participation), "perceptual/motor" (e.g. lighting, displays, workplace layout, information requirements), and "biological" (e.g. strength, seating, noise, wrist movement).

(Wall *et al.*, 1990). Better knowledge enhances performance, as employees are better able to deal with variances in the work process (Miller & Monge, 1986) and choose the most appropriate strategies to deal with a situation (Frese & Zapf, 1994).

In summary, job design research has coalesced around some key questions and these will be addressed throughout the book:

- What are the impacts of new technologies and new working practices on job content?
- What are the core job characteristics of modern working practices?
- What effects do the particular job designs of working practices have on psychological well-being and performance?
- Through what mechanisms do job characteristics effect job outcomes in modern working practices?
- What methods, tools and principles can be used to design and evaluate new technologies and working practices?

HUMAN RESOURCE MANAGEMENT AND ORGANISATIONAL PERFORMANCE

Key concepts in human resource management (HRM) theory are fit and synergy (Wood, 1999). Three types of fit can be identified: (a) the internal fit between human resource (HR) practices; (b) the organisational fit between HR systems—coherent sets of HR practices—and other systems within the organisations; and (c) the strategic fit between HR systems and organisational strategy.

The discussion of internal fit centred on the idea that some HR practices combine better than others, and that coherent bundles of practice will have synergistic effects. A corollary of this is that part of the explained variance in observed differences in organisational performance will be caused by the differential usage of synergistic bundles of practice. When the terms “high-commitment” and “high-involvement” have been used, authors have differed as to their precise content. But they are generally seen to include many of the following: teamwork, high control or empowered job designs; employee participation schemes; job flexibility; high quality and continued training; performance appraisal; well-resourced selection and recruitment procedures; performance-contingent incentive payment systems (including group-based pay and profit sharing); and minimal status differences (Wood, 1999). In this book, we have decided to let individual authors use their own preferred terms and constructs rather than impose a view.

A key debate is whether high commitment/involvement HR systems are universally relevant or whether their effectiveness is contingent upon its alignment with other organisational practices, i.e. an organisational fit, and whether their effectiveness is contingent upon its alignment with the organisation’s strategy, i.e. the strategic fit. Universalist approaches tend to assume that high-commitment HR systems reverse features of past Tayloristic, bureaucratic and low-commitment approaches to organisation and will generally have positive effects on organisational performance. A variant of the universalist argument is that a high-commitment HR system is a necessary but not sufficient basis for high performance. Rather, there needs to be a fit or alignment between high-commitment HR systems and modern working practices, such as TQM and lean manufacturing (Kochan & Osterman,

- Employee involvement (*cont.*)
 motivational mechanisms, 165, 166–7
 organisational performance, 161–7, 272–3, 280–1, 297
 participation in decision making, 29, 31, 32, 33, 34, 62, 101, 157, 209, 297
 performance management, 237–8
 practices involved in, 155–61
 service organisations, 297–8
 teams, 106, 160, 162
 total quality management, 43–5, 46, 158, 160, 162
- Employee stress, 7
 advanced manufacturing technology, 60
 call centres, 125–8
 customer–employee interaction, 126
 human resource management, 126–7
 job satisfaction, 302
 lean manufacturing, 28, 33–4, 397
 performance, 302–3
 service organisations, 300, 303
 teleworking, 209–10
- Empowerment *see* Employee involvement and empowerment
- ETHICS tool for organisational redesign, 337, 340–3
- Evaluation studies
 benefits, 349
 costs, 349–50
 criteria of evaluation, 348–9
 data collection methods, 357–60
 definition, 348
 experimental field studies, 352–3
 problems in design of, 360–3
 quasi-experimental studies, 353–6
 types of, 350–56
- Feedback, 8, 59, 156, 233–4, 419
- Flexibility, 5–6, 24, 373
- Fordism
 just-in-time, 7
 lean manufacturing, 20, 24, 32
 manufacturing practice, 272
 problems with, 272
 replaced by flexible practices, 417
- High-commitment approach, 7, 166, 395
 bundles of human resource practice and, 399, 414
 call centres, 121–4, 127, 130, 399
 characteristics of, 10
 contingency arguments, 10, 395–6, 399, 404
 human resource management and, 277–9
 lean manufacturing, 26–8
 service organisations, 295, 296, 299, 302, 303
 universalist argument, 10, 395–6, 404
- High-involvement management (HIM)
 manufacturing practices and, 276, 277–9, 281, 286
see also High-commitment approach
- High-performance practices, 163, 164, 165, 168
 employee involvement and empowerment, 163–4, 165, 166
see also High-commitment approach
- High reliability systems
 cognitive processes in, 378
 definition, 377
- HUFIT PAS toolset, 337, 338
- Human capital theory, 165, 303–5
- Human resource management
 bundles of human resource practices, 26–8, 123–4, 157, 312–13, 414–15
 call centres, 121–4, 123–4
 contingency arguments, 10, 164, 395–6, 399, 404
 co-occurrence with manufacturing practices, 274–9
 e-business, 259
 empirical issues in link to performance, 312–18
 innovation and creativity, 187, 188
 internal fit, 10, 121, 123–4, 312–13, 414–15
 knowledge management, 144–9
 lean manufacturing, 25–8
 measurement of, 316–17, 324, 402, 415, 423–4
 organisational fit, 10, 121, 415
 organisational performance, 10–11, 280–5, 311–12
 service organisations, 299–301
 strategic fit, 10, 121, 123–4, 313–15
 supply chain management, 85–9
 theoretical issues in study of link to performance, 318–22
 total quality management, 45, 274–9
 universalist argument, 10, 395–6, 399, 404
- Hypercompetition, 371, 378, 394
- Identity, 401, 408, 418
- Innovation
 definition, 177–8
 individual antecedents, 179–184
 job design, 184–6
 lean manufacturing and kaizan, 21, 25, 29, 32
 proactivity and, 178
 teamwork, 186
 leadership, 186–7
- Intensification, 28–9
- Job characteristics
 types of, 419, 420

- Job control, 41, 43, 59, 120, 123, 125, 156, 209, 414, 419
- Job design
 advanced manufacturing technology, 58–61
 call centres, 117, 120–1
 contingencies, 419
 flexibility, 373
 innovation and proactivity, 184–6
 job characteristics model, 8, 395
 job-demands-control model, 9
 lean manufacturing, 29, 33–4
 mechanisms, 61, 419, 420–1
 performance, 60–1, 304, 420
 redesign, 9, 394
 service organisations, 297–8
 socio-technical theories, 9
 teleworking, 209–10
 theories of, 8–10
 tools for job redesign, 65–6, 336–44
 total quality management, 41–3, 44, 48–9
- Job satisfaction, 127, 167, 302, 303, 305
- Job variety, 8, 58, 120, 123, 209, 396
- Just-in-time *see* Lean manufacturing
- Knowledge
 assets, 372, 380
 creation, 380
 competition based on, 5, 372
 definitions of, 380
 flows within organisations, 375, 379
 high-reliability organisations, role in, 378
 measuring, problems of, 420
 nature of, 137, 138, 139, 140
 know how, 383
 know who, 383
 markets, 381–3
 mechanisms in job design, 9–10
 organisations based on, 372
 relational networks, 379
 sharing and distribution, 78, 106, 136, 139, 141, 142, 143, 147–9, 375, 379, 381–3
 supply chain management, 83, 84
 teams, 106
- Knowledge management
 activities involved in, 137–8
 capabilities for, 379–380
 context of, 136
 communities of practice, 143–4
 culture, role of, 149–50
 definition, 4, 136–7
 designing organisations for, 379
 discourse of, 138
 human resource management, 144–9
 human resource strategy, 146–7
 information technology, 142–3, 382–3
 performance in sales, 305
- performance management, 238
 perspectives of, 139–40
 practices, 140–1, 379–80
- Lean manufacturing
 cases, 31–3
 definition, 4, 23–8, 271
 Fordist production and, 20
 human resource management, 25–8
 implications for employees, 28–31, 397
 job satisfaction and well-being, 26, 28, 33
 just-in-time, 20–22
 just-in-time, occurrence with human resource practices, 274–9
 just-in-time and organisational performance, 280, 281–5
 kaizan, 25, 29
 learning bureaucracy, 32–3
 organisational performance, 281–2, 395
 origins, 20–3
 Taylorism, 20–22
 types, 396–8
- Lean production *see* Lean manufacturing
- Manufacturing practices
 extent, 273–4
 human resource practices, occurrence with, 274–9
 performance, 279–86
- Mass customisation, 295
- Mass customised bureaucracies, 124
- Mass markets
 service organisations, 296
- Mass production, 5, 299
- Mass service, 5
 call centres, 121–4, 127, 130
- Mechanisms
 advanced manufacturing technology, 61
 cognitive, 165, 302, 420–1
 economic and sociological, 303–5
 employee involvement, 165, 166–7
 job design, 61, 419, 420–1
 manufacturing practices, 165–7, 319–22, 394
 motivational, 394, 421, 423
 organisational performance, 165–7, 273, 295–305, 319–22
 service organisations and performance, 301–5
- Modern working practices
 co-occurrence with human resource practices, 274–9
 conceptualising their form, 414–16
 definitions of, 4
 evaluation studies and, 350–63
 extent, 273–4, 406–7, 416–17
 human resource management, 6–7

- Modern working practices (*cont.*)
 mechanisms in performance, 165–7, 319–22, 394
 redesign, tools for, 336–44
- Monitoring
 call centres, 119–20, 123, 125–6, 300, 303
 lean manufacturing, 29
 total quality management, 43
- Motivation
 autonomous work groups, 239
 empowerment, 237–8
 goal setting, 325
 feedback, 233–4
 innovation, 182–4
 knowledge management, 238
 mechanism in job design, 8, 42, 394, 421
 organisational performance, 165–7, 319
 performance, 394
 performance appraisal, 234–235
 political dimension of, 405
 proactivity, 182–4
 ProMES, 240
 telework, 208–9
 theories, 221–5
 total quality management, 42–3, 236
 training, 230–3
- New capitalism, 372
- New workplace, 413, 418
 experiential newness, 417–18, 419
 extent of, 416–17
 historical newness, 417–18, 419
 new capitalism, the, 372
 new organisational forms
 ‘old’ workplace in relation to
 post-fordism, 272
- Non-Western employees, 401, 408
- Organisational forms
 characteristics of new organisational forms, 376–7
 definition, 374–5
 different types of, 375
 high commitment approach, 7, 10, 166, 10
 high-reliability systems, 377–9
 in information-intensive economies, 374–7
 knowledge-based organisations, 372
 knowledge markets, 381–3
 mass customised bureaucracies, 124
 mass production, 5, 299
 mass service, 5 (*see also* call centres, 121–4, 127, 130)
 social capital and, 385
- Organisational performance
 causal direction and human resource management, 321, 403
 e-business, 260
 evaluation studies, 350–363
 human capital theory, 303–5
 implicit performance theories, 322
 levels of analysis, 161, 315–16, 323–4, 402
 manufacturing organisations, 271–88
 measurement issues in study of, 316–18, 402
 mechanisms of performance, 165–7, 273, 295–305, 319–22
 methodology in study of, 312, 324–5, 403–4
 service organisations, 295–305
 study of, future directions, 323
 Organisational scenarios tool, 337, 338–40
- Participation in decision making, 29, 31, 32, 33, 34, 62, 101, 157, 209, 297
- Performance management
 autonomous work groups, 239–40
 definition, 4, 219–20
 empowerment, 237–8
 extent, 220
 feedback, 233–4
 knowledge management, 238
 motivation theory, 221–5
 organisational performance, 162–299
 performance appraisal, 234–5, 162
 ProMES, 240–1
 training, 230–3
 total quality management, 236
- Performance of modern working practices
 advanced manufacturing technology, 60–1, 280
 call centres, 128–9
 e-business, 260–1
 employee involvement and empowerment, 161–7, 272–3, 280–1, 311
 employee stress, 302
 just-in-time, 280, 281–5
 lean manufacturing, 281–2
 levels of analysis, 161
 manufacturing practices, 279–86
 mechanisms of performance, 165–7, 319–22, 394
 pay systems, 299–301, 311
 teamwork, 98–108, 300
 total quality management, 47–8, 280–5
- Political
 dimensions of work behaviour, 393, 404–6
 processes in design, 11, 424
- Post-fordism, 272
- Proactivity
 definition, 176–7
 individual antecedents, 179–84
 innovation and, 177
 job design, 184–6

- leadership, 186–7
 - teams, 106, 186
- ProMES, 240–1
- Psychological contract, 418
 - teleworking, 208–9
- Quality of Working Life (QWL), 156, 394, 395, 396
- Role breadth, 58, 183, 185
- Search conferences, 343–4
- Service organisations
 - business strategies, 292–5
 - customer segmentation, 294
 - economic and sociological mechanisms of performance, 303–5
 - economic context of, 291, 292–5
 - high commitment practices, 295, 296
 - human resource management practices, 299–301
 - information technology, 296–7
 - job design, 297–8, 304
 - mechanisms of performance, 301–5
 - models of service management, 295
 - pay and incentive systems, 299–301
 - psychological mechanisms of performance, 302–3
 - supervisors, effects of, 300–1
 - total quality management, 41, 294–5, 298
- Skill
 - advanced manufacturing technology, 56–8
 - call centres, 121, 123
 - employee, 6, 296, 303, 304
 - high commitment models of service, 295–6
 - industrial models of service, 295
 - innovation, 179
 - lean manufacturing, 30
 - mechanism in performance, 319–321
 - proactivity, 179
 - skilled workforce, 6, 7
 - total quality management, 41–2
- Social capital
 - definition, 383–4
 - information flow and, 384
 - new organisational forms and, 385
- Socio-technical theory, 9, 332, 393
 - advanced manufacturing technology, 56, 61–63
 - call centres, 116–17
 - contingency and universalistic arguments, 395–6
 - e-business, 258–9
 - organisational change, 335
 - tools, 337
- Soft-systems analysis, 337–8
- Strategic flexibility
 - organisational forms for, 374
- Strategy
 - performance, 312
 - strategic human resource management (SRHM), 311, 318, 325
- Stress *see* Employee stress
- Supply-chain partnering
 - definition, 4, 74–5
 - employee experiences, 77–85
 - extent, 76–7
 - human resource management, 85–9
 - perspective taking, 83–5, 88–9
 - theoretical approaches, 72–4
 - trust, 78–83, 86–8
- Systems theory, 62, 337
- Taylorism, 7, 394
 - call centres, 122, 398
 - job design, 8
 - lean manufacturing, 29
 - low commitment human resource management, 11
 - manufacturing job design, 272
- Teamwork
 - characteristics of high performing teams, 101–7
 - definition, 4, 96, 396–7
 - extent, 96–8
 - high road team working, 396–7
 - innovation and proactivity, 186
 - lean manufacturing, 29–30, 31
 - low-road team working, 396–7
 - performance, 98–9, 299, 300
 - performance management, 239–40
 - service organisations, 295, 298–9
 - within-team processes, 104–6
 - see also* Autonomous work groups
- Teleworking
 - communication, 206–7
 - definition, 4, 197, 198–9
 - extent, 197
 - job design, 209–10
 - psychological contract, 208–9
 - stress, 209–10
 - types of, 200, 399
 - virtual team and, 206–7
- Tools for organisational change, 63–6, 336–44
- Total quality management
 - definition, 4, 38–9
 - effect on employees, 41–3, 407
 - employee involvement, 43–5
 - hard and soft, 41–3
 - human resource management practices, occurrence with, 274–9
 - management experiences of, 40–1