Introduction

This book investigates the influence of national and local institutional variation on the internalization of work systems. It focuses on the degree to which strongly institutionalized organizational practices that are driven by people’s knowledge, ideas and suggestions can be diffused to a less densely institutionalized environment. The aim is to reflect the active process of internalizing that goes with implementing work systems, as well as to highlight the structural limits to accepting alternative work systems.

1. BACKGROUND

There is a growing body of literature on work systems diffusion (for example Richter and Vettel, 1995; Mowery et al., 1996). Researchers have adopted a comparative research approach to work systems diffusion from a variety of angles such as the following: the labour process and lean production perspectives within the Japanization literature (for example Stewart, 1998; Womack et al., 1990 respectively), the user-oriented perspective in the innovation processes literature (for example Scarbrough et al., 1998) and the historical neo-institutional perspective within the neo-institutional literature (for example Whitley, 1999b). However, there are marked differences across these perspectives with regard to: (i) a processual or structural/technical focus; (ii) an intra-firm or inter-firm level of investigation; (iii) a reference to universal or embedded framework and (iv) the objective or context-dependent view of work systems diffusion. This book adopts the historical neo-institutional perspective to highlight the institutional limits to the diffusion of work systems across nations. Few attempts have been made to shed light upon the difficulties in implementing alternative work systems in cross-national settings. Although attention is paid to the influence of institutional characteristics on the extent to which work systems are diffused within the innovation processes literature (for example Swan et al., 1999), this has not provided a systematic comparison of the context-bound nature of work systems diffusion. The focus has been on internal processes of innovation design particularly within ‘knowledge-intensive’ firms. The study reported here extends the discussion on knowledge to a new empirical context – the shop floor of a car component manufacturer. Attention to the
Internalization of alternative work systems by factory operators has essentially been disregarded by researchers operating in the innovation processes literature. Rather, scholars have tended to limit their investigations to sector-specific knowledge diffusion processes in consultancies, software companies and innovation centres (for example Lahti and Beyerlein, 2000). Their focus has been on the process of diffusing organizational structures and processes, including HRM activities.

Research on work systems diffusion commonly adopts the objectified view of diffusion processes that reflects the interest in tangible characteristics such as structure and technology. This is illustrated by economic accounts of work systems diffusion within multinational operations (for example Marton, 1986; Prahalad and Hamel, 1990; Kogut and Zander, 1992; Bresman et al., 1999). There is an attempt in such studies to link knowledge to a performance outcome (for example Leonard-Barton, 1995; Makino and Delios, 1996). In this sense, the firm is treated as a repository of capabilities or competences, and knowledge is seen as an objectified commodity (for example Barney, 1991; Fransman, 1994; Teece and Pisano, 1994). The limits to diffusion and embeddedness of work systems in institutional settings are not acknowledged.

Although a number of comparative studies have shown variation in the internalization of work systems across different capitalist systems (for example Sako, 1992; Lane, 1996), evidence from these studies is confined to the macro level. The dynamics of how diffused work systems are shaped within the firm have received less attention. Clark’s (1987) work on macro-to micro-level analysis of the way ‘work templates’ are appropriated is one of the few exceptions. An attempt is made in this book to complement the national-level discussions with the organizational level by providing an analysis of the social patterns that shape the internalization process.

2. RESEARCH OBJECTIVES

The book aims to reflect the active process of internalizing that goes with implementing work systems. When work systems are highly localized in character and acquired through engagement in specific action contexts, they can prove to be ‘sticky’ to diffuse to foreign firms (Szulanski, 1996). This is especially the case in Japan, where the activities of ‘highly co-ordinated’ business system (Whitley, 1999b) are generally carried out in accordance with highly implicit rules and social norms. ‘Compromise’ (Sharpe, 1997) or ‘hybrid’ (Abo, 1994) solutions are common where Japanese belief systems, which are not readily compatible with those of the adopter firm, are diffused to ‘foreign’ contexts (for example Besser, 1996; Mair, 1998). Work systems
are seen here as embedded at two levels: in the form of institutional embeddedness at the national level and tacit embeddedness at the organizational level. Embeddedness, which reflects behaviour that is aimed at sociability, approval, status and power, incorporates the impact of social structure and social relations on production, distribution or consumption (Granovetter, 1985). In this book, macro-level embeddedness addresses the nationally distinct characteristics of social institutions, such as legitimacy of Japanese and UK business systems, including structural characteristics of organizations and human resource management (HRM) systems. Micro-level embeddedness addresses the difficulty in the diffusion of work systems owing to the tacit nature of Japanese work systems.

The empirical evidence highlights the extent to which structural (participation through teams, shift in authority relations), cultural (values and norms that constitute the philosophies which underlie the structural and technical elements of continuous improvement schemes), control-related (perceived exercise of power) and technological (advanced production systems technology that is needed for the efficient running of technical systems) practices are accepted and put to use by UK adopter firms. This is accomplished by examining the nature of the influence of local institutional (such as location site and skills base of labour) and organizational (such as company size and age, as well as employee attitude towards alternative work systems) characteristics on work systems diffusion. The institutional and organizational levels are addressed in an effort to consider the contextual embeddedness of work systems, as well as to attain theoretical saturation and a robust explanation through comparative study.

With regard to the aim of the study, the central question may be formulated as follows:

What is the impact of national and local institutional variation on the diffusion of work systems in multinational corporations’ internationalization efforts?

This question can be subdivided into theoretical and empirical questions:

At the theoretical level:

● What are the key attributes of work systems diffusion?
● Which characteristics at local institutional and organizational levels are likely to have an impact on the diffusability of work systems across nations?

At the empirical level:

● Which characteristics are likely to either hinder or facilitate affiliate firms’ adoption of multinational corporations’ work systems?
The answers to the first two theoretical questions are drawn from the literature and form the building blocks of the analytic schema. This schema guides the field study and the subsequent analysis, which are intended to provide the answer to the empirical question.

3. RESEARCH DESIGN

The research on which this book is based adopts a comparative approach to investigating the ways in which Japanese work systems are adopted and sustained in affiliate firms of Japanese multinational corporations (MNCs) in the UK automotive manufacture sector. The process of diffusing work systems forms the central unit of analysis. The study looks at underlying processes (for example Sharpe, 1999), not only structures (for example Abo, 1994). This enables ongoing processes to be examined in a non-static manner. It is assumed here that an investigation of processes can reveal a set of meanings attached to work systems that is interwoven with structure and technology. The challenge here is to understand both the structural aspects and the subjective meanings attached to them. Moreover, the diffusion process is largely investigated from the adopter company’s perspective, as it is felt that ‘diffusion begins not with the sender but with what Rogers\(^1\) terms the adopter’ (Cutcher-Gershenfeld et al., 1998, p.42).

Qualitative case studies, which draw on semi-structured interviews, participant observation, factory tours and document analysis, are conducted in the UK subsidiary firms of Japanese MNCs (a brownfield and a greenfield site) and an Anglo-Japanese technical collaboration. The aim here is to observe the degree to which institutional variation between Japan and the UK influences the internalization of Japanese work systems in the UK. The two countries in the study are seen as constituting contrasting institutional settings (see Whitley, 1999b). The fundamental line of reasoning underlying this study is that institutional and organizational characteristics can hinder or facilitate the degree to which the source company’s work systems may be internalized by adopter firms (see Figure I.1).

In the schema in Figure I.1, which will be further developed in Chapter One, the implementation and internalization of work systems, which are seen here as components of the diffusion process, form the central unit of analysis. The degree of internalization by employees at adopter firms can be explained by linking it to the nature of institutional and organizational characteristics. The two-level characteristics that are considered particularly relevant in this respect are drawn from the literature and labelled here as key characteristics.

Bearing in mind the aim of the study, the sampled cases need to contain...
detailed descriptions of the extent to which work systems are diffused and
the nature of social institutions at the national and local levels in the auto-
motive manufacture sector. In this way, key institutional and organiza-
tional characteristics that can influence the degree of implementation and
internalization of alternative work systems may be identified.

The empirical setting of this study is the automotive manufacturing
sector. It represents an important industry from the standpoint of national
competitiveness. The number of Japanese manufacturers in Europe
increased by 16 during 1997 to a total of 859, with the UK retaining its lead
(247 manufacturers, 20 per cent of the EU total) over the rest of the EU. The
UK also had the highest number of new investments during 1997. ‘There
were 362 at end-1997, of which the UK hosted 127 (35 per cent), Germany
66 and France 50’ (News and Notes section of Euro-Japanese Journal, 1999:
59). It is claimed that ‘the adoption of the latest working [in the UK] has
resulted in a revolution in manufacturing skills and performance’ (Invest in
Britain Bureau, 1999, which is currently known as Invest UK). Further-
more, the quality and productivity of the output from UK factories is said
to rival the best in the world – including Japan – owing to the diffusion of
‘lean manufacturing’ systems and commitment to continuous improvement.
The selection of the automotive manufacturing sector allows one to inves-
tigate the possible limits to the adoption of Japanese work systems due to
the heavy emphasis on the transfer of the ‘Japanese’ model in this sector.
The number of Japanese investments is greater within the automotive
sector than it is in other sectors such as semiconductors; chemical, plastic,
Although the literature on Japanization provides an extensive study of the automotive sector, it does not sufficiently explain the social process of work systems diffusion and the way artefacts are understood by human actors. Whilst the study of patterns of knowing as a dynamic activity is better addressed by the innovation processes literature, a large number of studies in this field do not address the impact of macro-institutional structures on work systems diffusion in a particular industry, but rather focuses on human or technical processes underlying technology diffusion at a project or a national level (for example Clark, 1987). This study emphasizes the diffusion of work systems within production-related operations. It adopts the historical neo-institutional perspective to link characteristics of work systems to path dependencies within particular institutional settings.

### 4. ORGANIZATION OF THE BOOK

The book consists of five chapters. Chapter One provides a closer examination of the concepts of work systems, work systems diffusion and their embeddedness at the national and organizational levels. The book is positioned with respect to different perspectives on comparative research approaches to work systems diffusion, specifically the labour process and

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**Table I.1 Japanese foreign direct investment in the UK by product category**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of companies</th>
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<tbody>
<tr>
<td>Semiconductors related industry</td>
<td>4 (2%)</td>
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<tr>
<td>Automobile and automobile parts</td>
<td>35 (15%)</td>
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<tr>
<td>Machinery and engineering</td>
<td>34 (14.5%)</td>
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<tr>
<td>Chemical, plastics, pharmaceutical and healthcare</td>
<td>27 (11.5%)</td>
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<tr>
<td>Textiles and apparel</td>
<td>17 (7%)</td>
</tr>
<tr>
<td>Food and drinks</td>
<td>8 (3%)</td>
</tr>
<tr>
<td>Electrical and precision, machinery, office automation equipment, information and communication industry and components</td>
<td>93 (40%)</td>
</tr>
<tr>
<td>Others</td>
<td>16 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
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*Source: Invest in Britain Bureau (1995), currently Invest UK*
‘lean production’ perspectives within the ‘Japanization’ literature, the user-oriented perspective within the innovation processes literature and the historical neo-institutional perspective grounded in the neo-institutional literature. The institutional embeddedness of actors is discussed with particular emphasis on Whitley’s divergent capitalisms argument within the historical neo-institutional perspective. Further in Chapter One, an analytic framework is provided for a systematic comparison of the process of work systems diffusion across three affiliate firms of Japanese MNCs in the UK. This is followed, in Chapter Two, by a discussion of the analytic framework with reference to the diversity of capitalist systems and emphasis on different types of knowledge in Japan and the UK. This discussion is reflected in five propositions. Chapter Three presents the methodological aspects of the empirical study. The case studies conducted in the UK affiliate firms of Japanese multinationals in the automotive sector that serve to illustrate the institutional limits to the diffusion of work systems are detailed in Chapter Four. The results of the analysis are compared with the analytic framework developed in Chapter One and the propositions formulated in Chapter Two. Finally, in Chapter Five, the study outcomes are used to highlight the central role of appropriation in diffusion, and the theoretical and practical implications as well as the limitations of the research findings are discussed.

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