Chapter XIII

Management Integration Through Software Applications: Japanese Manufacturing Firms in the UK Exert Control

John Kidd and Tessa Yuk Lan Yau
Aston Business School, Birmingham, UK

Through the 1970’s to the present time the governance of the Japanese firm overseas has changed, moving towards a more international form of operation rather than operating as a peripheral organization based solidly on the Japanese headquarters office. Notwithstanding the evolution of their formal and informal management structures this research questions in detail the nature of computer software that may have been imported from Japan to the UK to control imported production systems and/or to control management data flows.

These research questions stem from evidence noted in the 1980’s that imported Japanese production machines contained Japanese language instructions beneath their cover plates: so when maintenance was to take place, the UK engineers became baffled and then frustrated at their inability to translate the “instructions.” In the research reported here, we are essentially asking if the computer programs used to control this imported machinery carry embedded Japanese documentation which may prove difficult to interpret by software engineers in the UK? As an adjunct to this question, we note the origin of their control software (and other software used by the Japanese production subsidiaries in the UK), its modification in the UK (by whom), and the natural language used to communicate with the HQs in Japan. As an emergent finding, we report on the tensions arising at that time from the data-integration of the Japanese firms’ operations in Europe through the use of Enterprise Resource Planning software.

INTRODUCTION

Japanese firms have been represented in Europe since the mid-19th century following the Meiji revolution. However, the Japanese did not manufacture any goods in Europe until 1966 when YKK and Pentel opened their factories in the UK and France respectively. Since that time there has been a regular investment in their European productive capacity, slowing only as the global recession became an internal factor in Japan; as a consequence there are approximately 850 Japanese production subsidiaries in Europe at the present time. During early surveys of the Japanese production subsidiaries in the UK through the 1980’s, it was noted that their imported production machinery had embedded instructions for the first-line maintenance crews written in Japanese (see Kidd [1994], Kidd & Teramoto [1995b]). It is not surprising that this is so, as the machinery in the UK was derived from a KND (knockdown and reassemble) program which brought viable machinery systems from Japan to be the bedrock of their production in the UK. However, the embedded Japanese instructions for first-line maintenance hindered the development of harmonious relations between the UK work force and their managers who, in turn, were often controlled by an expatriate Japanese chief executive officer.

Through the 1970’s to the present time we have seen the nature of the Japanese firm change as it moved towards a more international form of operation rather than seeming to run a peripheral organization based solidly on the Japanese headquarters office. Notwithstanding the evolution of their formal and informal management structures, we wished in the research to question in detail the nature of any computer software that may have been imported from Japan to control their imported production systems and their local managerial control systems. Did they have embedded Japanese documentation which might prove difficult to interpret by software engineers in the UK? Thus, our primary questions were upon the origin and subsequent modification of the control software, and where such modification took place. Subsequently, we explored the origin of all software in use and, during interview, found many firms were considering using Enterprise Resource Planning (ERP) software to integrate their systems.

We report on the use of computer software in the Japanese production subsidiaries (JPS) only in the UK from research conducted through 1998-99. This sample restriction arose from pragmatic reasoning—there were about 250 Japanese production subsidiaries in the UK, and nearly 900 across Europe. We restricted the search to the UK, avoiding the expense of a pan-Europe postal survey, so as to obtain a response to our UK postal survey in a reasonable time frame, and so we could undertake interviews and/or telephone discussions in our natural language, English, with our sample firms.

It was found that there was little software that was still substantially the same as that in use in Japan: most was modified in the UK though outsourcing contracts, and much of the other operational software was purchased from UK or US sources. Overall, managers said they were looking for their software to be able to be able to be integrated—and thus they were also looking to use Enterprise Resource Planning applications (like SAP, Baan, PeopleSoft, etc).

The Japanese Investment in Europe

In recent years, as the world recession deepened, there has been a deceleration in the investment by the Japanese in productive capacity in Europe, although investment in R&D centres continued unabated. However, leading up to our research deadline, there were 825 Japanese manufacturing firms in Western Europe, of which 331 firms indicated they were
An Optimization Model for Mapping Organization and Consumer Preferences for Internet Information Channels
www.igi-global.com/article/an-optimization-model-for-mapping-organization-and-consumer-preferences-for-internet-information-channels/177830?camid=4v1a

Global Information Systems Quality: Key Issues and Challenges
www.igi-global.com/article/global-information-systems-quality/51284?camid=4v1a