Japanese Hybrid Factories in Australia: Analysing Labor Relations and Reflecting on the Work of Tetsuo Abo

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This paper provides an analysis of Japanese hybrid factories in Australia in a context of labor relations aspect of the Japanese management and production system. The paper argues that the labor relations aspect of the Japanese system is the most successful transfer to Australia. In its second part the paper compares the data from Australia with Tetsuo Abo’s research in the UK and the US where ‘labor relations’ is the most successful transfer detected by Abo. This paper is not a reconstruction of Abo’s hybrid framework but instead seeks to draw a qualified comparative analysis using Abo’s results. The paper argues that there is a parallel between research findings from the UK, the US and Australia in terms of the success of labor relations that is inherent to the Japanese management and production system. It is suggested that future research can investigate this point with larger comparative data sets.

Japanese transnational corporations began manufacturing in Australia in the 1960s. Some examples of factory start up dates are: Toyota Motor Corp Australia (Melbourne, 1963), Nissan (Sydney, 1966), Matsushita (Sydney, 1968). There were also several smaller Japanese companies that began manufacturing in Australia in the 1960s and the 1970s. Aisin, Daikin, Denso, Toyota Motor Corporation Australia, YKK, Nissan Casting, Shinagawa, Yazaki, Sansetsu are examples of companies that still manufacture in Australia. Hence many Japanese companies have long been a part of the local labor market. While Japanese factories in Australia predate the ones in the US and the UK there are
many reasons for this phenomenon, the main one being the high Australian tariffs against imports at the time which encouraged these companies to set up production in Australia (Bayari 2008, Drysdale 2010, Edgington 1990). The Japanese system of management and production has been shown to be transferable and adaptable to foreign environments (Abo 2007a: 2). Pudelko and Harzing (2010) state that there is a debate on whether one is able to speak of a specific ‘management model’ referring to a set of identified management practices attributable to a particular country and that if the differences within one country are not at least as significant as differences between various countries. They conclude however that the term ‘management model’ specific to a country is justified especially given the differences between major economies such as Japan, Germany and the US. From the 1980s onwards the Japanese management and production practices were transplanted into the UK and the US (Dunning and Lundan 2008: 136-138). This process took place in Australia earlier and Japanese factories have long been a part of the local manufacturing sector, industrial relations system and the labor market. Labor relations are inherently a part of a country’s social, political and economic institutions. These institutions have a reciprocal relationship with foreign corporations that invest in the host country (see Dunning 2007: 21).

One of the aims of this paper is to discuss how the Japanese factories in Australia can be compared to Japanese factories in the UK and the US. The Japanese factories overseas are defined as ‘hybrid factories’ and they differ from one another in terms of their degree of ‘hybridity’, according to Abo (2007a). The way in which the Japanese management and production system is modified in transfer (which is its ‘application’) is called ‘adaptation’, of which the hybridity is the end result (Abo 2007a: 11-12). Cultural distance in transnationals’ overseas subsidiary management is a major factor (Shenkar 2001). Australia is culturally closest to the UK and the US despite the geographical distance and such distance is a factor for foreign subsidiaries in Australia and their performance levels
In the Anglo-Saxon nation-states in the last three decades, the dominant method of economic governance has been dubbed neo-liberal economics (Cahill 2002: 21-26). Although neo-liberal economic orthodoxy has also spread elsewhere, it is referred to as Anglo-Saxon or Anglo-American capitalism because of its geographical and cultural origins (Dore 2002: 11-12). The UK and the US are, like Australia, market-oriented systems (see Hirst and Thompson 1999: 224). Australia, like the Anglo-Saxon nations of Canada, New Zealand and the US, used to be colonial economic extension of the UK. In terms of market structure and capital formation Australia has more in common with these countries than any other. Australia has embraced neo-liberal economics and the Anglo-American model of the market as much as Canada and New Zealand did. In fact Australia’s adoption of neo-liberal economics is highly related to the fact that it is a nation that is part of the sphere of the UK and the US. Australian industries are largely extensions of the multinational firms from the UK and the US (Nicholas et al. 2003: 7). One other possible explanation (which will need to be left to future research) for these common points is that it is the peculiarity of the Japanese system that has led to this outcome. Home-cultures of transnational corporations can have global effects. The more homogenous the home-country of a transnational corporation, the stronger the country-of-origin effect is (Noorderhaven and Harzing 2003: 20).

Research that focus on foreign transnationals in Australia lack comparisons with data from the UK and the US (see Johnston 2004, Nicholas et al. 2003, Nicholas et al. 2005). This paper provides such a comparison by looking at data from Abo (2007b). It is evident that the US and the UK data in Abo (2007b) and Kumon and Abo (2004) have some common points with the findings in Japanese factories in Australia in one particular area: labor relations. Abo (2007b) describes the extend and the volume of the JMNESG (Japanese Multinational Enterprise Study Group) database and compares the results from the UK with that of the
US. New JMNESG data on the US is also included in a forthcoming publication and can contribute to this discussion (see Kawamura 2011).

The structure of Abo’s data analysis is different from that of the Australian data presented herein. Abo and his colleagues carried out a medium size field research in Australia the results of which is not published (Abo 2009). Professor Abo communicated to the author that while the ‘measurement method’ the author utilises in this paper is different from Abo’s own (2007a), the ‘similarities’ in the results in Abo’s UK and US data and the Australia data, as presented here, are real and should be explored by further research (Abo 2009). This paper attempts to make the case for this point and hence it is a form of preamble. Previous Australian studies on Japanese factories have not made any comparisons to other Japanese factories outside Japan (Iida 1983, Dedoussis 1990, Edgington 1987, Hoshino and Varvel 1987, Hutchison and Nicholas 1994, Jackson 1991, Negandhi et al. 1985, Newell 1984, Nicholas 1995, Nicholas & Purcell 1998a, 1998b, 2001, Nicholas et al. 1996a, Orpen and Viljoen 1985, Otsuka 1984, Park et. al 1997, Purcell et al. 1999a, Sekine 1992, Shadur et al. 1995, Yamanaka 1991). Thus while many research were carried out on Japanese factories in Australia there have been little effort in connecting their results with factories in other countries. In its latter part, this paper provides such a connection.

THEORISING TRANSNATIONAL MANAGEMENT

There has been substantial debate on whether Japanese corporations will eventually assume a Western model of labor management (Tokoro 2005: 43). There appears to be no immediate prospect of the Japanese organisational model form “converging” on the Anglo-Saxon model (Olcott 2009). Even though the core of the Japanese management style endures, this debate continues (Schonberger 2007: 417). The term ‘cross-vergence’ is used to hypothesise the way in which Japanese and other management styles can influence each other (Ralston et al. 2008: 8). While there may be similarities between Japanese and Western
management styles, the differences are pronounced and articulated in the way in which a global manufacturer succeeds or not (Tung 2008: 44). Transnational corporations transfer their core competences to their overseas operations (Pudelko and Harzing 2006, Pudelko and Mendenhall 2007). This is the basis their competitive advantages. Moreover, the place corporations have in society also significantly is different in Japan in comparison to Anglo-Saxon economies (Witt 2008: 49). However firms from Anglo-Saxon economies have been able to adopt the Japanese management and production practices (Robinson 2003: 439). This shows the applicability of these practices in different social, cultural and economic environments.

Australian researchers have previously utilised Dunning’s ‘eclectic paradigm’ in their analyses of Japanese manufacturers in Australia (Bayari 2004, 2001, Beeson 1999, Edgington 1990, Nicholas 1995, Nicholas and Purcell 1998a, 1998b, 2001, Nicholas et al. 1996a, Purcell et al. 1999a). According to Dunning, the choice of location of transnational foreign investment is not wholly determined by a distinct corporate strategy (Dunning 2005). Transnational corporations have organisational advantages which stem from management of production (Dunning 1988b: 106). The advantages that are transferred overseas can be ‘ownership-specific advantages’ (tangible assets and practices) vis-à-vis firms of other nationalities. When a firm uses these advantages it its output it also has ‘internalization advantages’. Further, the firm will gain ‘locational advantages’ if it utilises its ‘ownership-specific advantages’ overseas (Dunning 1988b: 26). Transnational production can be explained by different configuration of these conditions (Dunning 1988c: 204). For example, in their Australian operations, Japanese manufacturers, Matsushita and Fuji Xerox have used their advantages based on their ownership of ‘industrial ecology’ technologies. They instituted ecologically sustainable production and management practices in their Sydney factories in high skill and high-end technology environments (Benn et al. 2006: 106-108). Fuji Xerox calls the production system in its Sydney factory “eco-
manufacturing” and is a winner of the prestigious Museum of Sydney Eureka Prize, Environment Section. When the author visited the former Matsushita factory in Sydney in 2001, the company was installing a lead free soldering system, which was the third ever case in the world at the time. Hence, in Australia Japanese companies have transferred technologies that their competitors did not posses.

The concentration of foreign investment by the transnationals of a country in the host country is primarily a manifestation of their respective gross domestic products and the bilateral trade (Dunning et al. 2007b). Japan has been a major investor in Australia which has consistently enjoyed a trade surplus in the bilateral trade (Bayari 2008, 2004). Japanese manufacturing corporations’ subsidiary and headquarters relationship is quite differentiated in comparison to the corporations of other nations (Harzing and Noorderhaven 2006b). Organisational advantages of firms of one nationality can be transferred to their affiliates in another country if cultural and ideological factors allow it (Dunning 2006: 217). By proxy, such a transfer is possible from one country to several countries especially if the recipients have common cultural traits. One important question is whether such common cultural traits are conducive to the transfer of particular sets of practices of the Japanese system (such as those relating to labor relations) to all the recipients. The ‘organisational, locational and internalisation components’ can be considered holistically to account for the increasing interdependence in the economic activities of both firms and countries (Dunning et al. 2007a: 22). The trend that Dunning et al. (2007a) present is apparent in Toyota Motor Corporation’s investment patterns in Australia and its new productive capacity to manufacture hybrid vehicles (Spinks 2009, Hagon 2010). In this instance competitive advantage refers to the hybrid technology because Toyota is the only corporation that manufactures hybrid vehicles in Australia. The government has created a multi million dollar initiative for eco-friendly manufacturing including automobiles (Blackburn 2009). In 2004-2009
Toyota Motor Corporation has invested close to a billion dollars in Australian manufacturing (TMCA 2010). In terms of ‘location advantages’ which brings in Japanese investment, Australian government has a $6.2 billion investment in the automotive industry for 2010-2020 (Automotive Australia: 2010). This replenishes the previous $4 billion fund for 2001-2010 (ACIS 2010).

Foreign investment decisions have a reciprocal relationship with location advantages (Dunning 2004). For example, the three big US auto manufacturers (versus foreign manufacturers in the US) altogether have historically possessed the largest share of the US market (Rothstein 2006). They possess locational advantages in investment decisions at home. Japanese investment in Asia Pacific region (where Australia is located) became a vertically oriented efficiency response to the competitive advantages of the investing firms in line with endowments of recipient nations (Dunning et al. 2007a). Dunning’s ‘OLI components’ of the eclectic paradigm reflect the changing nature of the competitive advantages of investing firms and the host country. It is possible that neo-liberal market policies, as defined above, have allowed the possibility of ‘labor relations’ component of the Japanese system to be transferred to the US, the UK and Australia in the same manner.

AUSTRALIAN LABOR AND MANAGEMENT RELATIONS AT WORKPLACE
Management and production practices that govern the labor relations have long been part of Japanese style management and are still operational (Carr and Pudelko 2006: 84-88). Especially on ‘the shopfloor level’, the Japanese management and production system is likely to remain a socially oriented labor process in comparison to styles in other countries (Okabe 2002: 296). As a management style it is able to absorb challenges posed by new social norms (Cole et al. 2006: 320). The Anglo-Saxon economic discourse of labor management, driven by neo-liberal deregulation, gained prominence in the 2000s but the Japanese management and production system, especially its labor-management relations continue to be used (Vernon 2006: 400-411). Labor relations strategies
in the Japanese management style reinforce the totality of the management and production practices (Schonberger 2007: 403-404).

The ‘labor and management relations at workplace’ is a major issue in Australia which cyclically suffers chronic shortages of skilled labor (see Weller and Webber 2001). At the same time the pool of excess skilled labor is not readily transferable between sectors due to many factors (Beer and Thomas 2007). Under the Japanese management and production system quantity and quality of work are far more structured and controlled in manufacturing than other sectors (Kanai and Wakabayashi 2001: 131). So, the labor and management relations at workplace is evermore crucial for manufacturing. The paper will now consider labor relations in Australia in terms of legislation, management literature and practice.

The notion of “communication”, interpersonal and at intra-firm level, is a major element of the Japanese management and production system (Yamaguchi 2005). Japanese and Australian employees who work in Japanese transnational corporations in Australia can often have different work attitudes due to several factors including those that are cultural (Jackson 1991, Neustupny 1991). Potential miscommunication hazards are present in work interactions between Australians and Japanese due to cultural differences (Soutar et al. 1999: 203). Potential communication issues at workplace may also arise due to the multicultural nature of the labor market in Australia (Sekine 1987). In needs to be noted that in Australia the labor market’s cultural, ethnic and linguistic demographics are fluid due to migration from many countries (skilled and semi-skilled) which may serve to disallow theoretical frameworks that originate from concepts such as cultural power distance and power relations (see for example Hofstede 1991, 2001). As a consequence there is a scope for the use of Japanese-style management and production practices to create a standardized approach to work among all the employees. The hybrid management style (and its
variations) in Australia that developed within Japanese transnational corporations came about because the Japanese management and production practices were able to function within Australia's industrial relations system (Purcell et al. 1999a, Yamanaka 1991, 1995). For example, Toyota Motor Corporation was successful in negotiating the coverage of its entire workforce within a single union (which is a nation-wide trade union with members in many manufacturing firms) representation. A single union representation in one major manufacturing facility was a rarity at that time (the exact form of Japanese style company-based unionism does not exist in Australia).

It is not easy to define the Australian style of management on clear terms given the traditional effects of the British style in Australia and the postwar input of the American management style. Australia's business culture is often characterised by the low opinion that managers have of their labor force (Burgess 1989: 26). It is sometimes identified as an inward looking business culture (Townsend 1988: 330). Australian corporations have a poor innovation and entrepreneurial reputation (Kabanoff et al. 2000: 44-45). Further, transnational corporations’ Australian subsidiaries are characterised by lower levels of research, innovation and development capabilities in comparison to the subsidiaries in other countries (Harzing and Noorderhaven 2006a). Management culture is a product of social organisation. Due to a lack of sufficient integration between Australia and the rest of the world, management and production practices in pursuit of productivity have not been easy to develop in Australian corporations (Beeson 1997: 167). See, for example, Graen et al. 1999 for a discussion of a Japanese factory in Sydney which was plagued by wild cat strikes and low quality production. Overall, Japanese corporations began developing strong inter-firm links in Australia quite early on (Edgington 1987: 19). The connections between the two countries are multidimensional. Japanese economy is known to transmit its business cycle fluctuations to Australia (Selover and Round 1996: 569-571).
RESTRUCTURING THE MANUFACTURING WORK IN AUSTRALIA

In the last two decades Japanese ‘lean production’ has maintained profitability while the ‘Fordist-Taylorist’ model began facing a harsh ‘global mega-competition’ (Kawamura 2007: 41). The stagnation of the Fordist-Taylorist model in the Anglo-American world began in the 1970s (Reich 1992: 3). Japan and Germany long ago rejected the Taylorist division of labor that, along with intense mechanisation, formed the basis of Fordism, and instead applied skilled labor at the production line (Lipietz 1992: 39). These nations continued to compete successfully with the Fordist work organisation (Lipietz 1992: 39). By the early 1980s many sectors of the Australia’s manufacturing base that were designed along the Fordist division of labor were no longer competitive (Humphrey 1982: 218). Hence there developed a deep interest in the Japanese management and production system. By the late 1980s the Japanese management and production system was being used in a large scale in Australia (Edgington 1990, Sheridan 1992). Japanese foreign investment in Australia is connected with the development of the tariff barriers. A transnational corporation’s overseas investment is a defensive move in the sense that ‘a firm undertakes production in a foreign country to which it had previously exported extensively only when foreign production is necessary to stave off the loss of the market to local firms or other MNEs … often [in] a response to increasing trade barriers’ (Dunning and Pearce 1985: 135). Japanese manufacturers set up production in Australia to get behind the tariff walls because producing and selling in the local market was cheaper than exporting from Japan (Edgington 1990). Japanese foreign investment and management practices in Australia show that direct investment in Australia’s manufacturing sector means lower costs for the investing Japanese firm, an advantage that could not be replicated by competing transnational from other countries (Purcell et al. 1999a: 72-74; 1999b: 80-81). With the rise of neo-liberal market orthodoxy, this profitability was no longer guaranteed and investment in the Australian market began to shrink. Hence from the 1980s onwards trade liberalisation and tariff removal began to affect Japanese foreign direct investment (Anderson 1999: 1-5, Beeson
Final example of this is the shut down of the Mitsubishi manufacturing facilities in Adelaide in 2008 as the company could not compete with cheaper imports despite producing award top award winning products such as Magna and 380 models.

The Australian manufacturing sector has experienced two great restructuring phases in the last two decades. In the early 1980s the Labor government used a series of political settlements with the business world and the labor movement to encourage the expansion of the Japanese management and production practices in the Australian manufacturing sector (Reed and Blunsdon 1998, Murakami 1999). From the late 1990s onwards the major manufacturing corporations were engaged in multi-skilling training and integrating their production into the global supply chains (Bramble 2008, Shanahan and Treuren 2003). Essentially, the second stage of restructuring utilised the benefits that were derived from the first one (Stilwell 2000). Overall, the 'new institutional' theory's main axiom (see Powell and DiMaggio 1991) that companies adopt work practices more for legitimacy instead of efficiency reasons does not apply in this instance. In Australia from the early 1980s onwards, the government, unions and business sought to bring in the Japanese system into play across the industrial landscape on the face of a declining manufacturing sector that was severely uncompetitive internationally. The Japanese system had already been transferred and applied at Japanese factories (Toyota, Nissan, Mitsubishi, Matsushita and Sharp) in Australia, since the 1960s. Australia has been open to foreign mergers and acquisitions far longer than many of the OECD nations, due to its alliances with the US and the UK and its global exports of raw materials in massive volumes. But this 'openness' was skewed and economically irrational in many ways which are impossible to cover here. There may be indeed be different perspectives on what some of the elements of the Japanese system may mean in Australia, the US or the UK, as in a framework of 'symbolic interactionism' (see Stryker and Stratham 1985, Stryker 2001). However this paper focuses on Japanese
corporations in Australia and their own perspective of the transfer of the Japanese system to their own subsidiaries. The content of a management and production practice such as teamwork may be different in GM Holden, Ford Australia and Toyota Australia factories in Australia but that will have to be the focus of a comparative study. GM Holden and Ford Australia both adopted teamwork from the ‘Japanese system’ along with other practices. Further on the ‘institutional theories’ perspective, while other foreign manufacturers use elements of the Japanese system which were first brought to Australia by Japanese transnational corporations there is no suggestion here of a process of ‘isomorphism’ (‘coercive’, ‘mimetic’ or ‘normative’) as in Kostova and Roth’s definition (2002: 215). If such a process has occurred in Australia it can only be detected by applying the same research criteria to a sample of foreign manufacturers from different countries. This is outside the scope of this paper which focuses on Japanese corporations only. Moreover, from a ‘duality theories’ perspective it may be assumed that manufacturers in Australia act in a certain way because they are under simultaneous pressure towards integration to the rest of the world and adapting to local conditions (see Evans et al. 2002, and Guler et al. 2002). This perspective may prove to be too broad to be utilised on this very topic. Moreover on the theory front for this study of Japanese manufacturers in Australia, neither applicable is the original ‘institutional’ framework (see Selznick 1957) that the collection of work practices (in this case, the Japanese system) may gain acceptance due to their ‘symbolic’ values. As stated above, the Australian business, in its desperation to survive, was pushed towards efficiency seeking measures to increase the value extracted from labor power. It is worth noting that Australia has been historically well integrated to the world economy because it is a high volume exporter of minerals and fuels and its resources sector is largely foreign owned. Advanced industrial economies have come to rely on these steady exports since the post-war boom. The structure of the Australian economy is hence significantly different from other OECD nations that export high value added manufactured goods.
LEGISLATIVE FRAMEWORK OF LABOR RELATIONS IN AUSTRALIA

The element of ‘labor and management relations at workplace’ in Australia can be understood within a discussion of the framework of neo-liberal deregulation and its legislative expression. In the period subsequent to the *Workplace Relations Act 1996* (Commonwealth), ‘the exclusion of unions and the removal of the processes of collective bargaining’ were reported be ‘critical objectives’ (Deery and Mitchell 1999: 14). Weak employee bargaining power and ‘non-unionised’ and ‘high commitment’ labor management strategies are positively correlated to reduction in the collective will of employees to challenge employment conditions and managerial authority (Sharpe 2006: 336). The aim in legislating the *Workplace Relations Act 1996* (Commonwealth) was to de-unionise the Australian workforce and to enhance managerial prerogative (Stewart 1999: 44). Consequently, employers’ ‘real unit labor costs’ declined and ‘work stoppages’ and their frequency somewhat decreased from the mid-1990s onwards (Perry 2007: 22, 32-36). Moreover, organisational structures were flattened and job classifications were rationalised (Bamber et al. 2006).

Overall, the introduction of the individual work agreements in the style of the *Workplace Relations Act 1996* (Commonwealth) meant that there would be no legal requirement for a trade union presence at workplaces and that each employee could have a separate contract with the employer. This attitude became a part of the Australian business culture but the unions maintained their workplace presence especially in the manufacturing sector. In the 1980s the levels of unionisation in Australia was higher in Japanese manufacturers in comparison to their UK and the US operations (Pang and Oliver: 1988: 17). Australia was a relatively more union-friendly environment at the time. However, from the late 1990s onwards, the government-styled individual agreements appear to have, to some extent, co-existed with unions, according to the results of the author’s research survey (see APPENDIX). By the end of 2001, Australian Workplace Agreements had made little impact on the unionisation
levels on the manufacturing sector and was covering mainly employees in retailing (17 per cent of all agreements), property and business services (16 per cent), transport and storage (10 per cent) (Gittins 2003: 48).

Under the 1996-2007 governments’ rule, the Australian labor relations system was put through a series of changes that included company-based individual work contracts. But at the same time the 2000s saw a rise in positive business opinion towards unions in Australia (Peetz 2002: 57-59). This is reflected in the author’s research survey results in which the ‘labor and management relations at workplace’ variable is the most successful among respondent Japanese factories. Managerial control in Japanese subsidiaries is largely a matter of communication and information management rather than one of behaviour and power (Putti et al. 1993: 120). Variations on the Japanese management and production practice of ‘non-union channels of communication’ between the management and the employees have come to exist in Japanese transnational corporations in Australia (Purcell et al 1999a). This is a reflection on the conditions of the post-Workplace Relations Act 1996 (Commonwealth) period.

In the period under discussion there also developed a greater involvement of ‘line management’ over work relations and the management practice of direct employee supervision (Wooden and Hawke 2000: 35). Hence from the late 1990s onwards the role of the ‘line managers’ increased significantly in conjunction with the reorganisation of the Australian work model along the lines of the ‘lean production’ model typically associated with the Japanese manufacturing sector (Wooden 2000: 195). Lean production method is not only adaptable to production processes in different social systems, but also an embodiment of the historical development of manufacturing in the West (Hampson 1999: 369-371). As a result its applications in Australia was deemed unproblematic.

THE AUSTRALIAN DATA
The author’s research survey tested management and production practices that have long been identified with the Japanese labor management style in Australia (Nicholas and Purcell 1999, 1998a, 1998b, Nicholas et al. 1996a, 1996b, 1996c, Purcell et al. 1999a). In the author’s research four groups of management and production practices (‘labor and management relations at workplace’, ‘production management’, ‘team system’ and ‘structure of work process’) of the Japanese management and production system were tested in eighteen corporations to see, firstly whether they were transferred to Australia, and if so whether they were ‘functioning’. In other words, the management responses to the survey indicate the levels at which these groups of management and production practices are transferred. As they function in Australia at levels that are different from the home base there is a process of change, a transformation of these practices, which is called ‘hybridisation’, as per Abo’s definition (2007a). Labor market in Australia suffers ‘extensive labor under utilisation’ (the worst in the OECD) due to federal government employment policies and dominant employer strategies (Campbell 2008: 175-176). From the 1990s onwards the Australian labor relations became characterised by a focus on ‘the performance management’ of individual employees (Deery and Walsh 1999: 126). Australian subsidiaries of transnational corporations face less centralised control from the home base due to the liberalised nature of the nation’s economy and industrial relations (Fenton-O’Creevy et al. 2008: 154). The author’s survey tested the four groups of management and production practices but here the focus is on the ‘labor and management relations at workplace’. The period of industrial relations in which the survey took place is identified with ‘replacing collective bargaining with individualised bargaining’, effective reduction in demand for ‘union representation’ and management practices ‘designed to increase communication between management and employees’ (Wooden and Hawke 2000: 37).

According to the survey results, 1981-1990 appears to be the period in which most of the factories in the sample started manufacturing (Table 1). The number
of factories in automotive sectors is the highest in the sample, followed by the electronics and component manufacturers.

Table 1: Factory start-up years

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<tr>
<td>Number of factories</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
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Source: Author’s data (2001)

Table 2: Manufacturing sectors

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<th>Manufacturing sectors</th>
<th>Number of factories</th>
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<tr>
<td>Electronics manufacturers</td>
<td>5</td>
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<tr>
<td>Auto manufacturers</td>
<td>2</td>
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<tr>
<td>Auto-parts manufacturers</td>
<td>4</td>
</tr>
<tr>
<td>Plastics and rubber manufacturers</td>
<td>2</td>
</tr>
<tr>
<td>Component manufacturers</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
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Source: Author’s data (2001)

Table 3: Japanese management and production practices and success scores

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<tr>
<th>Japanese system in Australian Japanese factories</th>
<th>Percentage of factories</th>
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<tr>
<td>Labor and management relations at workplace</td>
<td>93</td>
</tr>
<tr>
<td>Production management</td>
<td>74</td>
</tr>
<tr>
<td>Team system</td>
<td>69</td>
</tr>
<tr>
<td>Structure of work process</td>
<td>58</td>
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</tbody>
</table>

Source: Author’s data (2001)

As apparent in the results shown in Table 3, the ‘labor and management relations at workplace’ is reportedly the most successful transfer. That is, ninety-three per cent of the respondents reported this element to be successfully functioning in Australia. In short, the order of success is ‘labor and management relations at workplace’, ‘production management’, ‘team system’ and ‘structure of work’ but the details of this will have to be the topic of another paper. Here it should suffice say that the nature of labor relations is found to be highly satisfactory for the Japanese manufacturing corporations in Australia and the association of this finding to the legislative and political developments was discussed above. As Japanese corporations increasingly spread overseas it became possible to transfer the elements of the Japanese system into foreign environments where ever the right conditions were present. As pointed out
above, Dunning shows that the elements of the Japanese system provides advantages to Japanese corporations that corporations from other countries do not have. These advantages have been transferred to Australia as part of the Japanese management and production system. This transfer is symmetrically reciprocal with the development and maintenance of hybrid Japanese factories in Australia.

**TETSUO ABO’S ANALYTICAL FRAMEWORK**

The Japanese management and production practices (including quality control, flexible work, teamwork, multi-skilling, just-in-time and training) have been discussed in Australian research on Japanese factories (Nicholas and Purcell 1999: 6, Purcell et al. 1999a: 75). The author’s research survey draws from the terminology of other Australian studies in its construction. In the past four decades Australia has hosted numerous Japanese factories that were studied in terms of their management and production practices (Nicholas 1995, Nicholas and Purcell 1998a, 1998b, 2001, Nicholas et al. 1996a, Purcell et al. 1999a). Until now Australian researchers have not directly engaged with the paradigm offered by Abo (2007a) and as a result there has not been a connection established between these two strands of empirical research.

The author’s data essentially covers the same ground with Abo’s variables discussed below even though they are not exactly the same. Abo’s discussion of ‘Labor Relations’ group contains the elements of ‘hiring policy’, ‘long-term employment’, ‘harmonious labor relations’ and ‘grievance procedure’ (Abo 2007a: 13). By contrast, in the author’s research framework, the ‘labor and management relations at workplace’ variable consists of three elements that measure the success of labor relations: 1) ‘employee-supervisor direct communication’, 2) ‘non-union employee/management committees’, 3) ‘communication from shop floor up’. Therefore, this paper makes no suggestion of a direct comparison between Abo and the author’s methodologies.

Abo's research since the 1980s has culminated in the detection of several distinct 'patterns' of hybridisation: North America, the UK, Continental West Europe, Western Europe, Korea/Taiwan, South East Asia, East Asia and Central and Eastern Europe (Abo 2007d: 237). Abo's data from the UK and the US is of particular importance. Abo's analytical framework is an orthodox, performance-oriented approach focusing on efficiency and quality which examines – from the viewpoint of Japanese parent companies and their factories in Japan – to what extent their competitive advantage has been transplanted overseas (Abo 2007b: 12). Abo refers to the process of transfer of the 'Japanese system' as 'application' and its modification in that process as 'adaptation', which are both, he argues, quantitatively measurable (see Abo 2007a: 12). Abo's framework for evaluating 'hybridisation' of the Japanese management and production system is highly specific and defined under six main groups of management and production practices as shown in Table 4.
In Japan the ‘application’ scores for the elements of the Japanese management and production system are, by proxy, all ‘5’ and the ‘adaptation’ scores are all ‘1’. Outside Japan, in an ideal situation, the reverse would be the case. If an overseas factory implements one of the items in Table 4 one-hundred per cent, it would receive an full ‘application’ score of ‘5’ (which means that there has been zero modification in its transfer) (Abo 2007a: 11). This also means that the ‘adaptation’ score would be ‘1’. On the opposite extreme, an ‘adaptation’ score of ‘5’ (and hence an ‘application’ score of ‘1’) would mean there had been no transfer.

Table 4: Abo’s research model of Japanese system

<table>
<thead>
<tr>
<th>I Work organisation and administration</th>
<th>II Production control</th>
<th>III Procurement</th>
<th>IV Group consciousness</th>
<th>V Labor relations</th>
<th>VI Parent-subsidiary relations</th>
</tr>
</thead>
</table>

Source: Abo (2007a: 13)

Every manufacturing facility that is researched, is tested under these six elements of management and production system that broadly cover the operations of Japanese manufacturers overseas (Abo 2007a: 12).

‘LABOR RELATIONS’ IN THE UK AND THE US

Abo’s paradigm demonstrates the common points shared by various Japanese transnational corporations’ management and production systems in their overseas operations. They are all ‘hybrids’. The only difference between the surveyed factories is the degree of their respective ‘hybridisation’. Abo’s evaluation method allows for specific comparisons between different locations of hybrid factories. The most successful adaptation in the UK and US is the element of ‘Labor Relations’ (2007b). Due to the lack of space there is no reproduction of the whole data set. In Tables 5 and 6, Germany and Hungary, despite being placed in the EU as is the case for the UK, have nevertheless different scores and ranking. China and South Korea too have very different
scores. Yet ‘Labor relations’ has the first rank in both ‘US’ data as well as the UK data. ‘Labor Relations’ has the 5th rank in Germany, South Korea and Malaysia and third in Hungary and China.

Table 5: ‘Labor Relations’ adaptation scores

<table>
<thead>
<tr>
<th>‘Labor Relations’</th>
<th>US 1</th>
<th>US 2</th>
<th>UK</th>
<th>Germany</th>
<th>Hungary</th>
<th>China</th>
<th>S. Korea</th>
<th>Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.7</td>
<td>3.6</td>
<td>3.6</td>
<td>3.0</td>
<td>3.1</td>
<td>3.1</td>
<td>3.3</td>
<td>3.1</td>
</tr>
</tbody>
</table>


Table 6: Ranking of ‘Labor Relations’

<table>
<thead>
<tr>
<th></th>
<th>US 1</th>
<th>US 2</th>
<th>UK</th>
<th>Germany</th>
<th>Hungary</th>
<th>China</th>
<th>S. Korea</th>
<th>Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
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<td></td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>


Country-by-country results differ (Abo 2004b: 73). So the variations in the results are not surprising. But among all the countries, only the UK and the US have the first ranking for ‘Labor Relations’. The degree of ‘hybridisation’ depends on local conditions and while an element is transferred and adapted overseas it does not necessarily function outside Japan in the same way (see Kumon 2004c: 268). The UK and the US data similarity is interesting given the geographical distance, difference in market size and their bilateral market relations (i.e. the UK is in the EU market—but outside the euro zone, and the US is in NAFTA). The UK and the US results and the correlation with Australian data present a possible trend of conformity in these Anglo-Saxon economies. One last detail is that the element of ‘Production management’ has the second highest rank in the author’s data. According to the data in Table 5 and 6, Abo’s research ‘Production control’ also has the second rank in the UK and the US research. Hence
Australia shares another point with the UK and the US but this finding has to be the topic of another paper.

**CONCLUSION**

The paper has presented the nature of the change in the Australian labor relations system and how this affected the transfer of the Japanese management and production system. It has analysed the labor relations in Japanese hybrid factories in Australia followed by a discussion of Abo’s own data from the UK and the US. The success of overseas Japanese plants hinges on how various factors constituting the specific aspects of the Japanese management and production systems can be modified and transplanted into local operations, effectively creating a ‘practical hybrid model’ (Abo 2007b: 26). It is possible to see the trends of ‘hybridisation’ between the ‘Japanese system’ and others by testing ‘application’ and ‘adaptation’ paradigm in different countries (Kumon 2004a: 18). Future research that can utilise tests of significance may offer other measurements of this point. Overall, the ‘Japanese system’ is a valid as a prototype (Abo 2007b: 14) and from the viewpoint of this ‘hybrid management model theory’ a ‘trend of global convergence’ is possible for Japanese manufacturers around the world (2007b: 33). In this paper the data from two different sources were compared. On a broader outlook, the level of success of labor relations at company level appear to be common to Australia as well as the US and UK. With the use of data from Abo it is possible to study this phenomenon. In the brief analysis offered in this paper it is apparent that the data from Australia emphasises the same elements as Abo’s data. This corresponding relationship between Japanese factories in Australia and the other two other Anglo-Saxon economies can be validated by further research. One of the aims of this paper was to lay bare this point. The other aim was to show how the company level labor relations have been reconstructed, from the late 1990s onwards, in Australia and how this affected the transfer of the Japanese system. According to the author’s research survey results, the ‘labor and management relations at workplace’ element of the Australian data is the most successful
transfer from Japan. What is clear in the results presented here is that the Australian environment allowed the development of Japanese factories in Australia and the transfer of the Japanese system. This shows the utility value of further research to understand what makes these three economic systems homogenous in their responses to the transfer of the Japanese management and production practices.

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REFERENCES


