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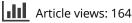
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Knowledge transfer within strategic partnerships: the case of HRM in the Brazilian motor industry supply chain

Geoffrey Wood^a, Pauline Dibben^b* and Juliana Meira^b

^aEssex Business School, University of Essex, Colchester, UK; ^bSheffield University Management School, University of Sheffield, Sheffield, UK

This paper investigates knowledge transfer (KT) of human resource management (HRM) across strategic partnerships in the Brazilian automotive industry, and the contextual factors impacting on KT within the supply chain. Case-study research in automotive companies and suppliers in Brazil is used to illustrate how in automotive industries, relationships with suppliers have traditionally been viewed as close, strategic partnerships, but over time, there has been a move towards more attenuated, supply chains, involving a shift towards more remote suppliers for basic components, and arms length relationships with them. In turn, this has impacted on how knowledge on HR has been transferred from manufacturers to suppliers. Both strategic partnerships and KT have been affected by internal drives towards cost cutting and talent retention, and external factors such as global competition through cheap imports, legislation, taxes, and unions. Evidence on the sometimes contradictory attitudes towards KT contributes towards the broader literatures on international HRM and KT in emerging economies, while the gradual unwinding of relationships has implications for policy and practice.

Keywords: automotive industry; Brazil; HRM; knowledge transfer; strategic partnerships; supply chains

This paper investigates how human resource management (HRM) is transferred within strategic partnerships in the Brazilian automotive industry, and the contextual factors that impact on knowledge transfer (KT) within the supply chain. It draws on case-study research in automotive companies and suppliers in Brazil to illustrate how in this sector, relationships have traditionally been viewed as close, strategic partnerships, but over time, there has been a move towards more attenuated supply chains. In turn, this has impacted on how knowledge has been transferred from manufacturers to suppliers. However, both inter-organizational relationships and KT have been affected by internal drives towards cost cutting and problems with talent retention, and external factors such as global competition through cheap imports and the employment relations system. The inherent, and intensifying, tensions and contradictions in these relationships shed light on how mature inter-firm supply relations and associated partnerships are being reconfigured, and dominant HR paradigms challenged and undermined, by structural changes in the global ecosystem, and the rise of new ultra-low-cost producers in the Far East. The paper focuses on the KT dimension: the sharing of information represents a pooling of knowledge, whilst transfer denotes a more focused passing on of knowledge,

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^{*}Corresponding author: Email: p.dibben@sheffield.ac.uk

strategies and processes, with a view to encouraging the promotion and replication of best practices down the supply chain.

The paper moves knowledge forward in three main ways. First, it sheds additional light on the nature of relationships within automotive industry supply chains through revealing how inter-organizational relationships have changed over time between strategic partners within Brazil. Second, it adds to the literature on international human resource management (IHRM) through focusing on the relationship between context, the quality of relationships down supply chains and the implications for HRM. While recent studies of IHRM have considered the important issues of HR practices and knowledge exchange within multinational enterprises (MNEs) and KT between MNE headquarters and foreign subsidiaries (Bjorkman & Welch, 2015; Ozgo & Brewster, 2015; Pudelko, Reiche, & Carr, 2015), and reflected on the need for talent retention, training and communication (Weber & Tarba, 2010; Zhang et al., 2015), this paper highlights the complexities and contradictions of KT of HRM within supply chains. Increased global competitiveness has led to firms being more wary of engaging in KT, fearing a loss of talent. However, reduced KT across supply chains means exposure to greater uncertainty, which impacts in turn on future sustainability. Third, the paper extends the evidence base on KT. The international business literature considers the extent to which multinational firms transfer knowledge, either to their subsidiaries (Minbaeva, Pedersen, Bjorkman, & Fey, 2014; Minbaeva, Pedersen, Bjorkman, Fey, & Park, 2003) or during the process of undergoing mergers and acquisitions (M&As) (Sarala, Junni, Cooper, & Tarba, 2016). This study further highlights how the transfer of knowledge of HRM has been undermined by increased competitive pressures, even within Brazil, where there is a tradition of close networks of relationships between suppliers.

The paper proceeds as follows. The next sections examine, in turn, the existing literature on: strategic partnerships within automotive supply chains; KT between firms and supply chain partners; and strategic partnerships, KT and HRM. These lead to the development of a conceptual framework. The following sections explain the methods used for case-study research in Brazil and then draw on the findings to illustrate how the conceptual framework might be applied in practice and further refined. The concluding discussion explains how this paper helps to move knowledge forward in relation to the automotive industry, KT and IHRM, and reflects more generally on the implications for the survival of the automotive industry in emerging economies that are experiencing economic crises.

Strategic partnerships within automotive supply chains

Strategic partnering is quite a diverse phenomenon, which may range from macroorganizational strategy to day-to-day operational issues (Mentzer, Min, & Zacharia, 2000). When purchasing is imparted with a strategic dimension, there is a focus on deepening relationships, communication and mutual gains with a limited panel of suppliers (Chen, Paulraj, & Lado, 2004); taken to its logical conclusion, this would lead to full strategic supplier partnerships or 'alliances' (Li, Ragu-Nathan, Ragu-Nathan, & Subba Rao, 2006), with the latter arguably implying more formalized relations and superior organizational outcomes. Strategic alliances may be undertaken by firms to gain competitive advantage in markets where there is turbulence, or where they need to broaden skills and resources without a major in-house investment (Cravens, Shipp, & Cravens, 1993). In this paper, the term strategic alliance is used interchangeably with strategic partnership, and the focus is on an informal relationship or alliance with a supply chain partner. How well they work, in turn, reflects the relative interdependence of the participating firms, planning, mutual collaboration and commitment.

External alliances may follow a strict logic of cost reduction (Eisenhard & Schoonhoven, 1996). This may involve outsourcing production to closely aligned lower cost producers to spread the risk of operating in an uncertain environment, and enable the firm to focus on core competencies whilst liquidating peripheral activities. However, such arguments centre on the nature of transaction costs, and routinized functions; firms may also form strategic alliances or partnerships in emerging industries, in highly competitive situations or to develop new technical solutions (Eisenhard & Schoonhoven, 1996). As Parkhe (1993) notes, strategic alliances require ongoing cooperation to work. and their relative efficacy may fluctuate over time; cost cutting may make it difficult to build trust and relationships. In the automotive industry, there has been a shift 'from a firm vs. firm' perspective to a 'supply chain vs. supply chain perspective' (Whipple & Frankel, 2000, p. 21), with firms basing their competitiveness on the depth and quality of their supply chain relationships. However, the maintenance and deepening of strategic alliances can be extremely challenging; a key dimension is to promote relative equity between partners, and, on behalf of suppliers, encourage a commitment to continuous improvement (Whipple & Frankel, 2000).

Narasimhan and Nair (2005, p. 301) argue that the 'architecture' of strategic alliances varies according to quality issues, with the latter ensuring close monitoring of quality and lean inventories. Whilst, in the motor industry, there have traditionally been long-term relations between the majors and their tier one suppliers, these relationships have tended to be less certain lower down the supply chain, and as this article will reveal, these tendencies have been accentuated. Supportive and stable institutional environments encourage firms to adopt long-term views towards their partners (Hitt, Ahlstrom, Dacin, Levitas, & Svobodina, 2004), and within the automotive industry, established Western and Japanese car majors and their principal suppliers are generally associated with work and employment relations with high levels of mutual interdependence (characterized by high investment in skills) and delegation (characterized by cooperative work and employment relations) (c.f. Whitley, 1999). However, as will become apparent, the rise of new component suppliers from East Asia has led to the globalization of production networks, and the weakening of strategic partnerships. Yet, the success of strategic alliances is dependent not only on financial and operational issues, but also on 'soft' issues, encompassing relationship capital which, in turn, encompasses commitment and trust (Cullen, Johnson, & Sakano, 2000, p. 223). Associational trust may be defined as a situation where it is assumed that, based on past experience and present contextual dynamics, one depends on another (Tomlinson, 2005, p. 1172). Such relationships are reconstituted and developed by individuals who monitor, collect and spread supportive information. Cooperation can be undermined by opportunism, which is more likely in situations of uncertainty and instability (Parkhe, 1993).

The Brazilian automotive industry is of particular interest. It has undergone a series of transformations since the 1950s. As part of an import substitution drive, the Brazilian Government heightened local content to between 90 and 95% in 1956, driving a change away from a production model centred on semi knock-down kits. To retain access to the large Brazilian market, automotive firms largely complied (Shapiro, 2006). However, this led to lower profit margins for the automotive majors, and contributed (along with an economic crisis in the mid-1960s) to the consolidation of the market, with dominance

being secured by three firms, VW, GM and Fiat, but five other players retaining a presence (Shapiro, 2006). Whilst the automotive majors undeniably moved to a model of leaner staffing, this coincided with deepening capabilities of the core workforce, and more extensive alliances or partnerships with first tier suppliers located in close geographical proximity (see Crouch & Voelzkow, 2004; Crouch, Schroeder, & Voelzkow, 2009). Other dimensions included the transfer of production techniques and technologies, a spreading of risk, and the ability to specialize in and develop competencies around the manufacture of key components.

From the 1980s onwards, the Brazilian industry was transformed by large investments and gradual liberalization (Humphrey, 2003), leading to greater globalization in sourcing and design and deeper relationships with suppliers in the immediate proximity of car plants (c.f. Zilbovicius, Marx, & Salerno, 2002), and echoing more general trends in the worldwide automotive industry since the 1990s (Abreu, Beynon, & Ramalho, 2000; Pires, 1998). From the early 2000s, advanced supply chain management played a key role in binding firms together (Pires & Sacomano Neto, 2008). Linkages between foreign original equipment manufacturers (OEMs) and local suppliers helped to build the manufacturing base and contribute towards Brazil's reputation as a rising economy. But more recently, the country has had to cope with significant political instability, culminating in a 2016 constitutional coup and a return to rule by a small right-wing elite. Contributory economic factors to this instability have included volatile prices for primary commodities, and intensifying pressure from competition from ultralow-cost suppliers of basic components from China and South Korea. There have been frequent reports of halts in production and lay-offs, given fluctuations in demand and intensifying competition (Exame, 2015). This has challenged existing supply relationships and questioned the continued presence or scale of operations of a number of long-established players.

KT between firms and their supply chain partners

KT is widely acknowledged as an important source of competitive advantage (Sarala et al., 2016), and can be defined as 'the successful transmission of knowledge, including the sending or presenting of knowledge to a potential recipient and the absorption of knowledge by the recipient' (Sarala et al., 2016; see also Davenport & Prusak, 1998). This paper focuses on the first part of this definition, in other words, the sending or presenting of knowledge to a potential recipient, the inter-organizational and contextual factors that affect it and the transmission of information on HR practices within supply chains, given the relative lack of attention paid to this topic within an emerging economy context.

There is an extensive literature on KT, and more recently this has been extended to cover both advanced and emerging economies. There has been detailed discussion of the extent to which multinational firms transfer knowledge, either to their present subsidiaries (Minbaeva et al., 2003, 2014) or through mergers and acquisitions (M&As) (Sarala et al., 2016). The literature on KT has highlighted the importance of strong and embedded linkages between firms (see Sarala et al., 2016). Sarala et al. (2016) provide an insightful analysis of KT within M&As, and in focusing on internal factors within firms, emphasize the need for sociocultural interfirm linkages, and complementary employee skills, trust, effective governance, cultural integration, knowledge-sharing routines and HR flexibility (defined as adaptation to changing conditions) to be present in order to promote effective KT. However, they acknowledge that whilst adding value,

internal flexibility may make employees more marketable to external organizations, with firms that invest in their people ending up providing training for competitors; this underscores the relevance of contextual circumstances, and the benefits of horizontal cooperation across an industry. In turn, the importance of context is confirmed by recent work on Japanese automotive supplier joint ventures and suppliers within Brazil, which highlights the importance of spatially specific socialization (Khan, Shenkar, & Lew, 2015). Further evidence from Chinese firms in Africa has highlighted the challenges of deepening and embedding inter-organizational relationships, particularly within emerging economies. When MNEs are involved, this may necessitate cross-cultural training and mutual learning; this should encompass an awareness of nationally specific macro-level factors, encompassing the wider employment relations system (Xing, Liu, Tarba, & Cooper, 2016).

Strategic partnerships, KT and HR practices

The HRM literature tended in the past to neglect what happens within and across supply chains (Fisher, Graham, Vachon, & Vereecke, 2010), although this has been partially remedied in recent years by a wide range of literature examining global supply chains, labour standards and regulation (see, for example, Riisegaard & Hammer, 2011; Reinecke, Manning, & von Hagen, 2012). Nevertheless, gaps remain in the area of KT of HR practices across supply chains, especially within areas where core firms and key suppliers have traditionally operated in close spatial proximity, which this paper helps to address. This paper also seeks to complement the burgeoning literature on HR practices and knowledge exchange within MNEs, and, more specifically, KT between MNE headquarters and foreign subsidiaries (Bjorkman & Welch, 2015; Ozgo & Brewster, 2015; Pudelko et al., 2015), and KT within M&As (Weber & Tarba, 2010; Zhang et al., 2015). For example, Weber and Tarba's (2010) useful review of HR practices and M&As in Israel acknowledges the possibility of resistance to KT, and explains how internal factors necessary for integration include training on work processes, technologies and systems, in addition to communication (that may be affected by anxiety and trust). The review also covers institutional and associated factors such as sociocultural influences, labour relations, government policies and legislation. Meanwhile, in drawing on evidence from China, Zhang et al. (2015) indicates the need to consider how in times of uncertainty, talent retention may be improved by a combination of leadership styles and HR practices.

Conceptual framework

Drawing on the above literatures on IHRM and KT, Figure 1 presents a summarized conceptual framework. The figure highlights how KT of HR may lead to a range of outcomes, including increased competitiveness and talent retention. However, it also shows how KT is affected by inter-organizational relationships which are influenced, in turn, by both internal and external factors.

The case-study findings will next be used to illustrate the model and to suggest potential refinements to it.

Methods

This paper draws primarily on the findings of seven case-study firms within the motor industry in three different regions of Brazil: the north-east (Pernambuco), south

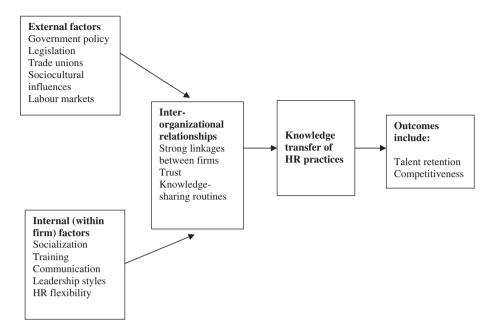


Figure 1. Strategic partnerships and KT of HR practices.

(Curitiba) and south-east (Sao Paulo). The case studies are used here for illustrative purposes, in order to draw out insights which help to develop the conceptual framework outlined above (Siggelkow, 2007). The case studies form part of a larger research project covering the automotive industries in Brazil and South Africa. The three regions indicated above were chosen due to the prevalence of automotive firms within these regions. In order to select firms, lists of companies were requested from the relevant state-initiated industrial associations (federacões de indústrias), together with information on location, size of company (in terms of the number of employees), level (e.g. manufacturer, tier one or tier two suppliers) and contact details. The case studies reported here include three international OEMs, each of which has a different country of origin (not named due to the need to preserve anonymity), and five first tier suppliers, again, each of which has direct relationships with different OEMs. The sample cannot be said to be representative of, nor generalizable to the whole population. However, given the relatively small number of OEMs operating in Brazil, and the diversity between them given different countries of ownership, the sample does give a useful picture of the current situation. Moreover, in order to improve validity there was a degree of triangulation between data sources (Johnson & Duberley, 2015) since the data include in-depth interviews with a range of participants including the following: CEOs, HR directors, supply chain directors and managers, accountants, Chief Financial Officers, production managers, marketing specialists and trade unionists. In total, seven case-study organizations, involving 22 interviews, each of around three quarters of an hour's duration (but ranging from half an hour to over two hours), are drawn upon here, in addition to field notes undertaken during factory visits in three of the companies, where details regarding production and working practices were noted. Interview schedules were developed following a review of the literature, and then through a lengthy process of iteration between members of the project team and the larger advisory board that included academics and practitioners. Questions included those relating to the organizational context, relationships with suppliers and customers, communication and KT, and accounting and human resource management practices within the firm and its suppliers. In order to aim for authenticity of response, prompts and probes were used.

All interviews were fully transcribed, and where necessary translated from Portuguese. Translators were carefully selected, and translation was checked by the researchers involved in the data collection process. Table 1 provides brief details about the companies and the participants within them.

Data were coded using NVivo 8, a software package that facilitated the organization of data. The use of NVivo involved developing an initial coding frame that was informed by existent literature, followed by inductive coding of imported transcripts. Patterns were detected and organized into themes and subthemes. The analysis was primarily undertaken by one researcher (the project leader) and developed in consultation with co-investigators from the UK and Brazil. The major themes and subthemes are shown in Table 2 below.

Each of the major themes and subthemes appeared across all of the case studies. This was since the interview schedules included set topic areas and suggestions for prompting and probing. However, the degree to which participants were able to comment on the particular topic varied depending on their role within the organization. Moreover, further down the hierarchy of nodes, subthemes emerged which did not necessarily contain data from other cases.

Case study code	OEM/First tier supplier	Car/ Motorbike	Participant code	Participant job role
BrOEM1	OEM	Car	Scm1	Supply chain director
			Scm2	Supply chain director
			Scm3	Supply chain director
			Mgr1	Production manager
BrOEM2	OEM	Car	HR1	HR director
			TU1	Trade union representative
BrOEM3	OEM	Car	Acct1	Accountant/Finance (Director)
			Acct2	Accountant/Finance (Director)
			Scm1	Supply chain director
BrSupplier1	First tier supplier	Car	CEO1	Director
			HR1	HR director
			PM1	Production manager
BrSupplier2	First tier supplier	Motorbike	Acct1	Accountant/Finance director
			HR1	HR Director
BrSupplier3	First tier supplier	Car	SCM1	Quality manager – supply chains
			Acct1	Accountant/Finance director
BrSupplier4	First tier supplier	Motorbike	HR1	HR director
			Mrkt	Marketing director
			Acct1	Accountant/Finance director
			Acct2	Accountant/Finance director
			Scm1	Supply chain/Quality director
BrSupplier5	First tier supplier	Car	HR1	HR manager

Table 1. Case-study companies and research participants.

Major theme	Subthemes included:		
Background-industry	Number of OEMs		
	Competitiveness		
	Growth or decline		
	Legislation		
	Labour relations		
Background-company	Years in existence		
	Products		
	Plants in other regions		
	Market share		
	Country of ownership		
	Internal relationships		
Supply chain management	Which suppliers		
	How choose suppliers		
	Location of suppliers		
	Company relationship with clients and suppliers		
	Nature of contracts		
	Influences on supply chain management		
HR practices	Number and type of workers		
	Performance management		
	Recruitment		
	Training		
	Pay and reward		
	Equal opportunities		
	Redundancy and job loss		
	Factors influencing HR practices		
Information sharing	Strategic suppliers (or not)		
C C	Sharing of HR information and HR costs		
	Sustaining of relationships		
	Trust		
	Confidentiality		
	Factors influencing sharing of information		

Table 2. Major themes and subthemes.

Findings

The findings cover, firstly, the way in which inter-organizational relationships have changed over time, revealing how they have moved from long-term relationships to those that are more attenuated. A willingness of players at various levels of the supply chain to adapt to suit the needs of other supply chain partners was accompanied by increasingly heated discussions, suggesting strain within relationships and even a break-down in trust due to low-cost entrants further down the supply chain. Secondly, the findings show how changes in inter-organizational relationships have impacted on KT of HRM, including the ways in which knowledge was transferred, and what was shared, but also reveal reluctance to share knowledge, given fears around the cutting of costs, competition, poaching of staff and job loss.

Inter-organizational relationships within strategic partnerships and changes over time as the result of various contextual factors

In Brazil, the motor industry was traditionally characterized by enduring relationships between OEMs and established locally based suppliers. In referring to their relationship with a particular OEM, the CEO of one supplier commented, We ensure that relationships are at all times workable and good-natured. However, pricing discussions and occasional service failures or discussions relating to occasional service failures can obviously become quite warm ... Each major corporation has a style of its own. We adapt our approach to fit in with the company's, the client's style, and we ensure that good relations, good working relations, exist at all times to the fullest extent possible. (BrSupplier1, CEO1)

However, there appeared to be some variation in the depth and relative durability of these relationships. Some referred to the continuance of established relationships with suppliers. For example, one OEM had kept preferred suppliers on long-term contracts of 10 years or more, and had worked with one supplier for over 35 years. In that company, all of the production suppliers were on long-term contracts because they supplied a specific part solely for BrOEM3 (BrOEM3, scm1):

For over 20 years they've [name of company] been providing wires for us. Then, [name of another company] for some twelve years, more or less. There are people who have been providing us for centuries. (BrSupplier3, scm1)

Conversely, others referred to strain within previously strong relationships:

In the commercial area, [we have had] very close contact with the clients. And, with the OEMs, this is changing a lot here in Brazil. So, in a few companies, you could speak to the same person for two or three years ... It has changed a lot. (BrSupplier4, scm1)

Various reasons were given for these changes, including low volumes of production, new low-cost imports and the high costs of labour due to wage increases secured by unions (BrSupplier4, scm1). The marketing manager in the same company commented,

We cannot produce or manufacture in here anymore everything that we should, everything that we could and everything that we would like, because it's absolutely not competitive with China, for example, due to the cost – legally, the cost of the labour in Brazil. (BrSupplier4, mrkt1)

In another company wage increases had created the need to pass on costs:

Even in unfavourable situations, we have had real wage increases of around two to three percent a year. So when you do this over many years, this wage bill pressure, it affects the company's costs strongly. We cannot pass it on to the market because we have competition from China or Asia. And we find ourselves caught between the devil and the deep blue sea We have tried to change everything and there is nothing more to change. Then you go to your customer and say, 'Look, please, we don't have another alternative, we have to increase the price'. And it will vary whether he passes the increased cost on to his product or not, or if he increases the order from Asia. (BrSupplier2, acct1)

Although they had worked in close partnership with a particular OEM for many years, this was not helping them to stave off competition from Asia. Thus, the emergence of new sources of basic components had placed new pressures on supply chains. Automotive majors placed renewed pressures on tier 1 suppliers to cut costs, and in turn, more closely scrutinized the costs of the components they themselves received. In practice, this meant that further down the supply chain, local suppliers were under renewed pressure. The end result was potentially a gradual unwinding of complex networks of alliances within and across Brazil. At the periphery of supply chains, and, in respect of lower cost, lower technology components, there was strong pressure to further globalize networks, discarding local suppliers in favour of even lower cost ones from abroad:

We have already sent professionals to visit Asia in order to get a part of that chain. Instead of acquiring certain supplies here, we tried to get them in Asia. (BrSupplier2, acct1)

At the same time, intensifying competition from other global sites of production, and the opening of a previously more protected home market, had forced the local affiliates of car majors to cut costs – and, above all, jobs – in order to make themselves better equipped to cope with changes in demand and to secure the production of new cycles of car models for global markets.

Our scenario, as much as we want to be optimistic, does not show signs of improvement. We did our first lay-off two years ago with [over a thousand employees] ... and now I know that there are many companies like [names of automotive companies], they have hundreds of employees in lay-off. (BrSupplier2, acct1)

Proposition 1: Strategic partnerships are under strain due to the need to adhere to labour standards, global competition and cost-cutting.

Inter-organizational relationships and KT of HR practices

In BrOEM3, there appeared to have been transfer of knowledge at a strategic level:

We have the manufacturer here ... for instance today we have purchasers inside [name of department]. We have business partners seated in each of these business areas following the day to day discussions, providing support, for instance. Just before our meeting we had our management meeting here with my boss who is the vice president for this operation here in [place] for the trucks operation, and one seated there was the business partner for HR. (BrOEM3, acct1)

KT appeared to be more restricted in the area of production. In BrOEM1, there was staff training of various suppliers in a range of areas, including specific manufacturing processes (BrOEM1, mgr1), and transferring information on 'linked techniques' in the assembly of vehicles (BrOEM1, scm2). However, there was limited KT around OEMs designed tools that were developed by the OEM then used by the first tier suppliers:

Normally our parts are made with tools. We purchase the tools, and the tools belong to us. And they are used only for supplying parts to us ... There's a philosophy behind some tools ... that we share with suppliers. Depending on the relationship, if it's a long-term relationship, if the supplier is one that we have a good interaction with, we share it. (BrOEM1, scm2)

It was also found that there appeared to have been an erosion of trust between strategic partners. Trust relationships depend on predictability (Dietz, 2004); any disruption of established ties and exchange relations will necessarily ripple within and between the different nested layers of relationships linking automotive majors and their various tiers of supplier. One interviewee explained that trust had diminished due to the actions undertaken because of fluctuations in demand. For example, he had needed to 'freeze scheduling' for two to three weeks,

... and the supplier asks us, what's happened? I can work, I cannot work, what's this forecast? Sometimes you need to ask us for one thousand, sometimes zero. (BrOEM1, scm3)

In this case, better KT on production and HR might potentially have enabled a better solution to be obtained.

In terms of HR practices, the transfer of knowledge to suppliers was, according to one OEM production manager, 'When we have some kind of problems or when we are discussing opportunities' (BrOEM1_mgr1). However, a supply chain director explained how additional information was given to suppliers on job roles, levels of responsibility and the type of skills that they needed for a particular aspect of production in order to reduce costs and to ensure health and safety (BrOEM1_scm1). Another reason was to ensure smooth production to 'control the pipeline' (BrOEM1_scm3). In another plant, knowledge of HR practices was transferred more often due to the physical closeness of their location to the suppliers (BrOEM1_scm2). Indeed, it was suggested that in the past, the transfer of HR information to suppliers was easier when suppliers were located closer to them (BrOEM1_scm3). In BrOEM3, the transfer of HR information took place when they were negotiating a price with a supplier. At that stage, they produced a 'simulation' of operations and included HR information such as absenteeism levels (BrOEM3_acct2).

The KT of HR practices by some suppliers did not seem to have been considered (BrSupplier6_ceo1; BrSupplier12_HR1; BrSupplier12_acct1). In contrast, BrSupplier9 shared information on certain HR practices, as long as it did not involve providing cost-related information (BrSupplier9 HR1):

Some practices that we have here it is possible that we can share, for example: the way we control absenteeism, the way we control ergonomics, right? There is not any problem in sharing ... we do not share numbers, but some practices without problems ... We share training practices, benefits. [This helps] us to understand how the market is positioned, because it helps us to retain our talents. (BrSupplier9_HR1)

In this case, the reason seemed to be because they expected information in return, and could then better retain talented members of the workforce.

Proposition 2: Reasons for KT of HR practices include damage limitation (health and safety), cost reduction, the need to guarantee supplies and talent retention.

However, there were various factors that appeared to prevent the effective transfer of knowledge. In BrOEM3, resistance to KT was due to an anticipation that relationships may not endure. Consequently, it was regarded as 'common practice' for an OEM to let a supplier use their tools, but the (intellectual) property remained with the OEM:

... So when you need to change the supplier, you need to pick up your toolings, take your fixtures and bring it back to put it in another supplier. (BrOEM3, acct1)

In the same OEM, there had been a long history of providing intensive training for suppliers (BrOEM3_acct2), with the aim of making their suppliers more competitive by reducing costs. However, some suppliers were reluctant to be trained due to fear of revealing high costs, which might lead the OEM to try to lower the price for the product (BrOEM3, acct2). These tensions had led to a conflictual relationship rather than a collaborative partnership.

The OEMs seemed to rely on implicit understandings and trust with second tier suppliers, in areas ranging from quality control to labour standards:

We have our critical suppliers or key suppliers, that produce some complex parts, like big sets for suspension, big sets for wheel or some air conditioning and so on, and normally we have no contact with, but we have a close monitor with our first suppliers. Sometimes in between two or three months we make some short or informal survey about their suppliers, if everything is OK with the supply floor ... Because our focus is to know if they could have any problems about capacity and buffers. So that is the normal process that you have. (BrOEM1, scm3)

On the one hand, this system worked quite well in cementing the type of trust relations that grow organically despite, or because of, the absence of close and direct monitoring. On the other hand, in other firms trust relations appeared to be at some risk, in the context of global concerns about survival, and with fears about job loss impacting on productivity (BrSupplier2, acct1). The intensity of competition had forced a closer and more instrumental scrutiny of costs down the supply chain, which had placed the greatest pressure on smaller local players further down the supply chain, and their workers. Another factor that impinged on KT was fear of the loss of talented staff to other firms:

We lost people to [name of OEM], which is our client, indirectly. We lost, right? And as we are a small company, I joke that I'm just training people for the larger companies. Free training. They say that those who are the 'sandwich' are the ones who suffer. (BrSupplier3, scm1)

It's something like this: partnership with these other companies, I think it's rather difficult. Each one is seeking what is best for them. What we try to do is some internal retention plan, but that is not an easy thing. (BrSupplier2, acct1)

For OEMs, the transfer of staff from suppliers was seen as a normal, and a positive move (BrOEM1). However, any erosion of trust will make meaningful delegation more difficult. And if jobs become scarcer, employees will have fewer options in terms of switching jobs within supply networks, making the grassroots dissemination of skills and capabilities within alliances more difficult. Although a trend within the global car industry has been a move towards greater delegation to employees and inter-dependence with them (Whitley, 1999), and the dissemination of the higher HR standards of the car majors to their allied suppliers, it can be argued that, above all in terms of job security, this model has become under threat, as, indeed, has the survival and continued Brazilian presence of suppliers. And, if jobs are insecure, it may become much more difficult to persuade employees to invest in developing their organization-specific skills, as adverse to those which are externally marketable.

Proposition 3: Factors impinging on KT of HR practices include fear of transitory relationships, competition, cost-cutting, and loss of talent.

Conceptual framework incorporating propositions

The findings presented above resulted in a series of propositions, leading, in turn, to the refinement of the conceptual model presented above. In summary, strategic partnerships are under strain due to global competition and cost-cutting and the need to adhere to labour standards; reasons for KT of HR practices include damage limitation (health and safety), cost reduction, the need to guarantee supplies and talent retention; and factors preventing KT include transitory relationships, and fear of competition, cost-cutting and loss of talent. The model is presented in Figure 2.

Concluding discussion

In summary, it was revealed that relationships between strategic partners had changed over time from closer relationships, based on continuity and associated trust, to more transactional ones, based around costs. They had been placed under strain due to global

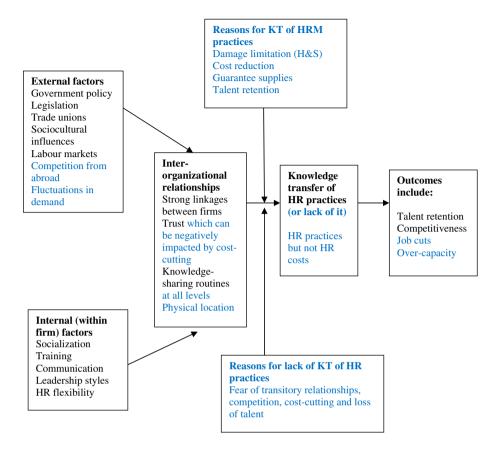


Figure 2. Strategic partnerships and KT of HR practices (refined).

competition and the need to adhere to labour standards. This had impacted on the predictability of inter-organizational KT; dominant players looking to cut costs and gain the flexibility afforded by greater use of arms length contracting were less inclined to invest in stable relationships characterized by close or 'thick' ties encompassing mutual learning, and the exchange of ideas, techniques and optimal HR practices. Companies still shared a range of types of information, including running supplier training events and supplier development workshops on manufacturing processes and shared tools (technological). However, there were signs that within the difficult economic climate, insecurity contributed to diminishing trust, with knock-on effects on HR knowledge flows; such insecurity encompassed more transitory relationships, and fear of competition, cost-cutting and loss of talent.

This paper contributes towards knowledge on strategic partnerships in a range of ways. Firstly, it sheds additional light on the nature of relationships within automotive industry supply chains through revealing how inter-organizational relationships have changed over time. Second, it moves forward the literature on IHRM, through revealing the complexities and contradictions of KT of HRM within supply chains. Although the existing literature on KT highlights the importance of close ties and formalized relationships, this study highlights the extent to which mature and dense relationships are prone to disruption owing to intensified competition and the disjuncture between formal

regulation and the needs of organizations and their stakeholders. Above all, it highlights the extent to which KT cannot be seen purely in terms of inter-organizational relations; regulation matters, be it in terms of national-specific institutional support that accords firms sufficient space to take a longer term view and/or the regulatory support that facilitates the rise of, and sustains new competitors. Central to this is the role of HRM, and the contradictions and dilemmas posed in seeking to reconcile the need to maintain and enhance skills and knowledge down supply chains with the challenges of reducing costs and securing flexibility in productive capability and numerical terms. The IHRM literature has tend to focus on the dissemination of HR practices and knowledge exchange within MNEs, and KT between MNE headquarters and foreign subsidiaries (Bjorkman & Welch, 2015; Minbaeva et al., 2003, 2014; Ozgo & Brewster, 2015; Pudelko et al., 2015), and/or during the process of undergoing mergers and acquisitions (Sarala et al., 2016), and highlights the central importance of talent retention, investment in people and communication, as a basis of competitiveness (Weber & Tarba, 2010; Zhang et al., 2015). This study extends this work through looking at the challenges of securing this within supply networks both within and across national boundaries, and with the need to retain proprietal knowledge, yet enhance the human capabilities of key partners. Without KT, firms expose themselves to greater uncertainty, and are increasingly forced along a path to competitiveness centring on low costs. This paper reveals how and why the transfer of knowledge of HR practices has been undermined, even within Brazil, where traditionally, there have been close relationships between strategic partners within supply chains.

The study has broader implications for HRM in automotive companies in Brazil, and in other countries. Although there has been a history of the dissemination of production models and associated HR standards across the interlinking automotive firms and various tiers of supplier, there appears to be a process of slow unwinding underway. At the same time, as KT and cooperation between automotive majors and their first tier suppliers has persisted, and, indeed, become increasingly sophisticated, heightened competition has forced a move to more tenuous relations further down supply networks. The entry of new low-cost suppliers of basic components has allowed the Brazilian branches of the automotive majors to cut costs, but the consequences have been offloaded further down the supply chain. Whilst the automotive majors and their suppliers have had to learn to make do with leaner workforces, suppliers further down are facing pressures to jettison established relations with their own suppliers, forcing more instrumental contracting.

As Whipple and Frankel (2000) note, the quality and durability of alliances is not only contingent on communication, effective performance evaluation, and good relations with core customers, but also a degree of evenness, if not equity, in terms of resources and benefits. The rise of ultra-low-cost suppliers of basic components from China and South Korea has challenged this balance of power, enabling the automotive majors to drive far harder bargains with first tier suppliers. Even if the majors remain in a mutually interdependent relationship with the latter, they are in a position – and indeed, are compelled by the intensification of competition in the global automotive industry – to insist on reductions in costs, that, beyond a certain stage, are only possible through first tier players abandoning or renegotiating their established relations with their own suppliers. This process has made for diminished job security for automotive workers in Brazil, discouraging industry-specific human capital development, with potential negative consequences for cognitive capabilities at the firm and local level, and for KT between organizations.

In turn, this presents specific challenges for HR managers. At the level of the majors and first tier suppliers, cooperation and the development of organizational-specific skills and knowledge may be undermined by the reduction in employment security: employees may seek to develop what makes them externally marketable, rather than further developing their organization-specific skills. It is beyond the power of HR managers to control the rising internal competition model between the automotive majors, let alone structural changes in the industry and the global economy. The climate of insecurity therefore has to be offset through innovations in other areas, including a closer reflection on what internal individual and collective capabilities are unique, and can serve as a sustainable basis for production that reconciles cost with quality and innovation. Added to this, HR managers will need to work more closely with supply chain managers in order to ensure that KT takes place in a way which will forge closer relationships with suppliers and lead to the exchange of best practices. Supply chain managers' sourcing strategy and trust relations will affect KT, and relatedly, the degree of KT may affect the success of partnerships in the long term. This is of particular importance for emerging economy suppliers that appear to accept instructions, but not internalize them if they are not negotiated or carefully communicated to them (Khan et al., 2015).

The Brazilian motor industry has been able to survive a process of gradual liberalization, unlike countries such as Australia and New Zealand, not only on account of greater government interest in maintaining the industry, a larger home market and an associated knowledge of consumer taste, but also due to the well-developed nature of the strategic partnerships between various levels of supplier, which have been supported by relatively high volumes and also networks of implicit understandings and trust relations that have been constructed over many years. This approach faces great challenges, given intensified competition both at the level of final assembly and in the provision of the most basic of components, undermining established relationships down supply chains; this unwinding has implications for KT and capabilities development, and, hence, for the survival of the industry.

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