OUTSOURCED BUT IN REACH: COST SAVINGS AND LABOUR STANDARDS IN THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY

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Introduction

This is a study of work and employment relations, and outsourcing of core production both off and on site. There is a very extensive literature on outsourcing, but this has tended to concentrate on instances where outsourced production takes place at another, often geographically remote, locale or where support functions are outsourced on site. What distinguishes on site outsourced core production is that the core firm retains control, to a large extent, of work relations, but shifts much of the responsibility for employment relations to the outsourcing provider. At the same time, this process is neither uniform, nor without contradictions, as illustrated by the existing literature on global commodity chains (alternatively referred to as global value chains). This body of knowledge has examined supply chains within the national and international context, and has drawn attention to the complex dynamics of power relationships between the buyer and customer, and the roles of dominant parties in that relationship (Gereffi and Korzeniewicz, 1994; Gereffi et al, 2005). In the automotive industry, the dominant players have traditionally been seen as the major car manufacturers. However, the development of global networks has impacted on their relationships with their first-tier and second tier suppliers (Humphrey, 2003; Naude and Badenhorst-Weiss, 2011). Questions remain regarding the ways in which dominant players seek to drive down prices but at the same time achieve quality products, and in particular, the impact of these imperatives on either low value or high value added HR systems. Our existing understanding within GVC theory is that dominant firms may embrace higher value added activities, but this may not necessarily be the case for their suppliers (Azneh and

Nadvi, 2014: 708). In looking at the automotive industry, Contreras and Carillo (2005) note that a tendency in the 1990s has been to greater consolidation in automotive suppliers, with the latter assuming a greater share of the production process, but with an erosion of operational autonomy (see also Sturgeon et al. 2008). In the 2000s, the automotive industry has also been altered by a countermovement toward spatial consolidation and control, with the rise of Chinese automotive suppliers (ibid.).

The South African motor industry is a particularly interesting case, in that in common with Australia and New Zealand, it emerged through protectionism and active industrial policy, but then had to contend with liberalisation in the 1990s and 2000s. However, unlike Australia and New Zealand where the motor industry has largely collapsed, the South African motor industry has survived, and, albeit in a somewhat fragile manner, actually prospered. To a large extent this survival reflects not only a more sensitive and incremental approach to the liberalisation of tariffs, but is also due to the South African industry being able to reinvent itself, from one characterised by great inefficiencies and poor quality, to a high quality and efficient one. This reinvention reflects not only better industrial and work relations, but also a capacity to innovate, often through improvisation, given limited resources at play.

This research draws on the case of the subsidiaries of three major firms in the automotive sector and their relationship with their suppliers. The research was part of a larger ongoing ESRC funded project (Grant Ref: ES/K006452/1) focusing on the automotive and textile industries. The paper draws on in-depth interviews with senior people involved in supply chain management, HR, accounting, and production, together with detailed fieldnotes taken during site visits in each company.

The remaining sections of the paper proceed as follows. First, the paper highlights three inherent tensions in outsourcing strategies, the first being between arms length and close relationships with suppliers, the second relating to the choice between high value added,

flexible and specialised production, versus cost-cutting approaches, and the third concerning spatial decisions. In South Africa, these tensions are highlighted by a range of factors including: the challenges to competitiveness of global production; the development of legislation relating to localisation (local suppliers and therefore local jobs) and equity (counteracting past workplace inequities); and the role and behaviour of the labour movement in countering these inequities. The findings then draw on qualitative research from three case study organisations including interviews with in-depth interviews with senior people involved in supply chain management, HR, accounting, and production, together with detailed fieldnotes taken during site visits. They address, in turn, the key challenges facing the automotive industry, the forms of outsourcing undertaken, and the extent to which there is monitoring of supplier HR practices. The concluding section discusses these findings and draws out implications for a more developed understanding of the basis of the survival of the automotive industry in emerging markets, and the ongoing challenge of achieving competitiveness while maintaining labour standards.

Outsourcing and labour standards

There are three key dimensions to outsourcing. The first concerns whether buyers have arms' length or close relationships with suppliers (Humphrey and Memdovic, 2003; Cox, 2004). Within the automotive industry, in arms' length relationships the car firms push production decisions onto suppliers, in other words, leading to the de-integration of the car plant. These relationships are now becoming more popular, given the global over-capacity in the automotive industry (as well as in other industries) and the need to keep costs under control (Milberg and Winkler, 2013). Arms' length relationships often take place where buyers need to secure basic components that are relatively low value added (e.g. the mechanical

component parts of windscreen wipers or door closures). A feature of such relationships – particularly at the second tier or further down the supply chain – is a relative lack of interest in suppliers by the car major, other than in terms of costs. However, at the same time, car firms have sometimes sought to maintain close relationships with local suppliers, in some cases bringing them into their own factories. This may be in order to offset some of the costs and challenges of the employment relationship, to share risk and investment, and/or to uphold quality and reliability. Here, supplier work and employment relations practices, and indeed, the specific nature of the production process, are closely monitored, and in some instances, explicitly specified in terms of the contract with the supplier.

A second dimension is the nexus between making use of outsourcing to secure new competencies or knowledge (Quinn, 1999; Arias Aranda et al., 2011) versus the desire to cut costs (Embleton and Wright, 1999). A central theme within the literature on outsourcing is based on the tension between these two very different, but sometimes overlapping rationales. External providers may bring access to new technologies or knowledge; they may also be able, through servicing many firms, to yield economies of scale in areas where it may not otherwise be possible (Belcourt, 2007; Sheehan, 2009). However, they may also serve as an instrument for driving down costs. The latter may be achieved through allowing the firm to circumnavigate existing collective agreements and/or mature psychological contracts, or through moving or retaining a proportion of necessary labour outside of the organisation (see Bryson and White, 2006; Coyle-Shapiro and Kessler, 2000). Where the subcontracting of labour has been used to reduce costs, this has led the way to challenges for trade union organising in various contexts, and due to its apparent growth has been referred to as a new paradigm, pejoratively termed as 'subcontracted capitalism' (Wills, 2009:442). Through subcontracting, the firm may be able to retain an external reputation as a good employer, and harness the productivity and quality benefits of a committed core workforce, whilst allowing

an arms length provider to squeeze wages in less sensitive areas – perhaps through support functions, or in areas of manufacturing where specialised employee skills and knowledge are less important. Such relationships might allow firms to readily adjust labour forces without the need for redundancies, simply purchasing less goods or services from the supplier, as long as they keep to the pre-agreed parameters of the contract. In countries such as South Africa, firms have competed to provide low-tech manufacturing, leading to 'asymmetry of market structures within global value chains, with oligopolistic lead firms at the top, and competitive markets among the lower-tier suppliers' (Milberg and Winkler, 2013:123). In order to compete, lower-tier suppliers can be forced to cut wages and working conditions, where this is within the law (or they are not able to legally circumvent the law).

A third dimension of outsourcing is the spatial one. Outsourcing allows the firm to harness the benefits of very different production regimes, without having to set up operations in their national contexts (Kohler, 2004). This strategy could include developing deep and close relations with second and third tier suppliers, finding local knowledge bases, seeking regional incentives and differing levels of governmental support, using an ability to access financing, or simply drawing on the greater availability of very cheap labour (c.f. Harms et al., 2012). Hence, whilst a firm may be committed to operating in a particular context, it can harness the benefits encountered in others without the need to relocate some or all of its activities. However, this does come at a cost. Firstly, a greater distance inevitably places risks in terms of inventories, and the firm is faced with the volatilities of long distance transport. Secondly, it is much harder for the core firm to closer monitor quality, or indeed, labour standards. Thirdly, it is more difficult to have close integration between the dissemination of technology and design, and the actual production process, which is a particularly daunting challenge in the motor industry, where car firms have traditionally relied on close proximity and awareness of core markets. This means that much of this type of outsourcing is confined

to low value added components, where quality is relatively easy to monitor, or where the cost savings are so great as to offset any additional expenditure. Figure 1 below depicts some of the possible relational configurations between core automotive firms and their suppliers.

Insert Figure 1

However, actual practice is somewhat more nuanced. Rationales for suppliers may overlap; relative value added production, for example, does not always coincide with labour standards. Furthermore, relationships with a particular supplier may be close in some areas and arms' length in others. In addition, as will become apparent, automotive firms often appear to lack knowledge regarding practices beyond the second or third tier of their supply chains; decisions around practices and supplier relations are often delegated to the second tier supplier.

In South Africa, there is a further complication due to two key imperatives. One is the necessaity for at least some localisation as a result of residual tariff barriers. The other is the need for firms to be seen to uphold basic employment rights (both on account of South Africa's relatively progressive body of labour law, and the reputational risks of being seen to be associated with practices associated with the apartheid past), and equity (both in terms of fairness of treatment of employees and through active measures to reverse past injustices). The South African context is outlined in the discussion immediately below.

The automotive industry in the South African context

The South African motor industry dates back to the 1920s (Black and Mitchell, 2002). As was the case with the former Australian and New Zealand motor industries, the industry was

nurtured by protective tariffs. However, unlike the Australian motor industry, where GM (Holden), Ford and Chrysler (Valiant) produced an indigenous range of large cars, the South African motor industry never really developed indigenous design capabilities; almost all of the cars produced in South Africa have been to a lesser or greater extent, Completed Knocked Down kits (CKDs), albeit, in some instances, with a relatively high degree of local content. To a large extent, this was the product of a small domestic market; under apartheid, few other than a privileged white minority had the wherewithal to purchase new motor cars. Moreover, political isolation meant few opportunities for exports. This led to the emergence of an industry that was quite fragmented, with, by 1970, 16 assemblers co-existing, with just under 300 000 vehicles being produced (Black and Mitchell, 2002). This led to a consolidation of the industry, with a few larger players retaining a presence. In the new landscape, local capital became much more prominent; most notably, Anglo American assumed ownership of a number of local car plants.

This situation gradually changed during the 1970s and 1980s, owing to two key issues. Firstly, increasing sanctions and international pressure led to some car firms (e.g. GM) selling out to local interests, and others (e.g. Peugeot/Citroen, Renault) quitting South Africa altogether. Secondly, and, in part response to increasing sanctions, the apartheid government increased local content requirements. From the initial 1961 local content regulations, which forced local sourcing of relatively easily procurable local components (e.g. seats, windscreens, wiring), Phase II required 55% of local content by 1969, and Phase III 65% of local content by weight by 1976 (Verster 2014). Again, this made the situation uneconomic for smaller players, contributing to further exits and a wave of mergers of the local operations of a number of car majors (e.g. Chrysler/ Mitsubishi/ Mazda/ Ford). By 1987, the number of car makers had fallen back to seven, with less than half the number of models (Black and

Mitchell, 2002). Later phases further increased local content requirements, up until the final Phase VI of 1989, allowing for tariff reductions in return for exports.

As local content requirements were defined in weight terms (Topcar, 2010), car firms were able to increase local content through increasing the mass of components that were readily sourced locally, leading to car firms producing models with thicker bumpers and carpets than their overseas counterparts. In the case of entry level models, local content could be furthered through deleting components such as heaters and supplementary instruments. Many car firms also resorted to producing engines locally as this was a high mass item; up until the 1980s, motor engines were less reliant on electronics, making local production much easier. Some car firms opted for larger, albeit sometimes obsolete engines, than encountered in comparable models overseas, again making for greater weight, especially when compared to other components (e.g. gearboxes and body panels) that were imported.

In summary, there were three key features of the South African motor industry in the apartheid era. The first was a great deal of ingenuity in producing cars that met local content requirements and were financially viable despite small production volumes. Inter alia, a wide range of engine blocks were cast by local foundries, some producing very small numbers of units on a jobbing basis. For example, in the Western Cape, the former Gearings foundry produced a wide range of engines for British Leyland, sandwiched between other activities (e.g. the casting of crane hooks) (James, 2014); the resultant engines were somewhat prone to cracking. In order to keep production of the 1961 Austin 1100 on the road up until the late 1970s, Leyland sandwiched a Triumph front and rear end onto the luckless vehicle, making for the notorious Austin Apache. Presumably, this was a way of getting rid of an unused production line and surplus inventories from Glas GMBH, an obscure motor firm it had purchased. BMW revived production of the last of the Glas motor cars in South Africa as the BMW 1800/2000. Of all the car firms, General Motors was the most ambitious and ingenious

in terms of boosting local content. It assembled a (highly popular) range of cars based around the Opel Rekord which were eventually powered by much heavier locally cast versions of GM's (North American origin) 3.8 and 4.1 litre inline six cylinder motors whose origins stretched back to the 1920s (Watson, 2014). Initially, they were branded as Rangers, and marketed as 'South Africa's Own Car' (Topcar, 2010); unusually, the Ranger brand then expanded into Europe, where it was a commercial failure. Later, Rekord based cars were sold as Chevrolets, distinguished from their European counterparts by a large bulge on the bonnet to accommodate the inline six. Even more ambitious was the shoehorning of a North American V8 into a Vauxhall Viva (locally badged as Chevrolet Firenza), one of the most unprepossessing small cars of the 1970s, to make a uniquely South African answer to the supercar. Local content was boosted by fibreglass body panels, which also served to offset the gross imbalance of the enormous engine; apparently, the vehicle was most effective when operated in a straight line. Finally, GM produced a vehicle with 88% by mass local content, the Chevrolet Nomad. Equipped with heavy 'railway box' bumpers, this Spartan vehicle was boxy on account of the limited local capacity to produce curved body panels; although it had looks that are vaguely reminiscent of the jeep, it was only 2 wheel drive, and it took some 40 seconds to reach 60 miles an hour (Car, May 1976).

The second feature is that (the legendary reliability of the Chevy 3800/4100 being a notable exception), many locally produced cars had serious quality problems, as a result of the challenges of localisation and isolation (Barchiesi, 1996). Despite its determined efforts, some other car makers gave Leyland serious competition in the cracked engine block stakes. Many cars were also prone to chronic rusting, whilst, inter alia, wiring harness insulation by some local suppliers was prone to failure. This made the bulk of the motor industry ill-equipped to deal with the reduction of protective tariffs, and the influx of visibly better made cars from abroad.

Thirdly, the motor industry had quite serious industrial relations problems. Although under high apartheid, black workers were largely unrepresented and lacked rights, the early 1970s saw the emergence of a generation of independent trade unions that were able to, on account of strong grassroots organisation, withstand periodic bouts of state repression (Maree, 1987). An early candidate for unionisation was the automotive industry, on account of relatively high workforce sizes, and the susceptibility of car majors to international pressure. From the earliest days, unionisation embodied a tension, between a desire to secure recognition and to reach viable compromises with management, and the desire to challenge petty racism and wider injustice within and beyond the workplace (Baskin, 1991). This led to periodic breakaway unions and bitter strikes, culminating in the 1990 occupation of the Mercedes-Benz plant, which nearly led to the exit of that car maker (Von Holdt, 1990). The deracialisation of South Africa's industrial relations system in the 1980s, and the admission of independent trade unions into industry wide Industrial (later Bargaining) Councils failed to secure industrial peace up until the end of apartheid. Although the erosion of the racial division of labour and democratisation relieved major sources of workplace tension, there remain serious tensions in the unions between the need to compromise and cooperate with management, and strong grass roots pressure for a larger share of value generated (Buhlungu et al., 2008).

The realignment of the South African motor industry

The end of apartheid saw the return of car majors which had exited, with GM reassuming control of its former South African subsidiary, and others, such as Daimler, making major new investments. It also saw phased liberalisation implementation via the 1995 Motor Industry Development Programme (MIDP), which encompassed not only the phased

reduction of tariffs, but also an Import Export Complementation Scheme (IEC) (Flatters and Netshitomboni, 2006). Essentially, this scheme allowed for the import of components tariff free as long as a similar value of components was exported (Barnes, 2000). This allowed manufacturers and their suppliers to more easily update their ranges, replace terminally poor quality locally sourced components with imported items, and to make the volumes of locally produced items more viable. However, many of the locally produced items remained quite low value added and with low technology (Barnes, 2000). It also allowed for locally based car majors to concentrate their efforts on single models, resulting in more viable levels of production; exports allowed for the import of a number of different models. These developments led to a complete realignment of the motor industry, with the larger players (VW, Toyota, BMW and Daimler) ramping up production of single model ranges to globally viable levels, with a large proportion of production being exports. At the same time, the deepening of long term partnerships with unions enhanced the basis of cooperation. Workers had new opportunities for upward mobility, relatively high pay, and a greater say over the process of production; productivity and quality increases made export production viable, but also facilitated much leaner staffing (see Buhlungu et al., 2008). If automotive workers were now an elite, they were also a relatively small, and in some areas, diminishing one.

In 2013, the MIDP ended, and was replaced by the 2013 to 2020 Automotive Production and Development Programme (APDP). The programme retained an initial protective tariff of 25% of locally produced automotive components and finished cars, and the principal of offsets; car firms that produced more than 50 000 cars were entitled to import duty rebates (Furlonger, 2014). Critics have charged that the schemes have made for unnecessarily expensive new and used cars, and that the ambitious targets of a self sufficient and high volume local industry have remained elusive (ibid.). Others have raised the concern that the (WTO compliant) level of protection might prove inadequate to sustain the

automotive components industry, and are less than that encountered in many other emerging markets (Bronkhorst et al., 2014; Steyn, 2013).

A further feature of government policy has been the establishment of further rights for workers, and in particular, legislation that aims to redress past inequities. The Basic Employment Conditions Act, 1997 was explicitly intended to comply with the obligations of membership of the International Labour Organisation, and regulates leave, working hours, employment contracts, deductions, pay slips, termination, and employment of children and forced labour (Republic of South Africa, 1997). The Employment Equity Act 1998 further protects workers and job seekers from unfair discrimination, and provides a framework for implementing affirmative action. In particular, it seeks to protect black people, women and people with disabilities (Republic of South Africa, 2014). It was intended to 'do away with the bitter legacy of racism, gender discrimination, discrimination against people with disabilities and other unacceptable practices which negatively affected the overwhelming majority of South Africans under apartheid' (AllAfrica.com, 2014). However, inequities still remain. The Commission for Employment Equity released figures in April 2014 that showed that Whites still make up 57% of senior management, Africans 23.1%, and the remaining number being composed of Coloureds, Indians and foreign nationals. In relation to gender, males accounted for 70% of managers, while disabled people took 1.3% of senior management positions (AllAfrica.com, 2014). A further important piece of legislation is the Broad-Based Black Economic Empowerment Act, 2003, with amendments such as those in 2013 that included revised codes of practice and dealt with noncompliance and circumvention through introducing offences and penalties. Offences include misrepresentation, or attempting to misrepresent the BBBEE status of an enterprise (Greve, 2014). Together, these pieces of legislation aimed to protect workers, and in order to achieve this have required the additional reporting and monitoring of labour practices.

Methods

The research is part of a larger ongoing ESRC funded project (Grant Ref: ES/K006452/1) focusing on the automotive and textile industries. This paper's findings are based on the South African subsidiaries of three large multinational automotive firms. Each has its headquarters in a foreign country. For the purposes of anonymity, they are referred to here as SAautocase1, SAautocase2 and SAautocase3. Within these three companies, interviews were conducted with senior people involved in supply chain management, HR, accounting, and production, and in addition, detailed fieldnotes were taken during site visits. Again, for the purposes of anonymity, the job roles are not specified, and respondents are referred to as, for example, SAautocase1_HR1 for an HR specialist within the first South African automotive company.

The data that has been analysed for the purpose of this paper covered a range of questions, including the key challenges facing the automotive industry, the supplier base, the forms of outsourcing used, the reasons for outsourcing, and the impact of outsourcing on HR practices. Each interview was recorded, with permission, and then transcribed. The data analysis software program NVivo was then used to develop a hierarchical coding framework based on prior reading and the questions posed during interviews. The coding framework included a number of core categories, and then a range of subthemes. The framework was initially developed by the lead author of this paper, and then reviewed, in consultation, with two other project team members, leading to the addition of further subthemes. Subsequently, transcribed interviews were imported into NVivo, and coded thematically, using the existing coding framework, but also generating new themes. This process enabled the answering of key questions but also facilitated the emergence of new and unexpected themes from the data.

Findings

Key challenges facing the automotive industry

As noted above, productivity increases have facilitated leaner staffing. Both in response to this, and the challenges of competitiveness (particularly in the face of imports, remaining tariff barriers notwithstanding), this has led to job cuts. For example, SAautocase1 had cut its workforce by around half since 2008 (SAautocase1_act1), while SAautocase2 had decreased by less than 10% (SAautocase2_HR1). Both had mainly used voluntary rather than compulsory redundancies to effect this change, facilitated by ageing workforces.

When asked about the key challenges facing the automotive industry, interviewees referred to a range of different areas. One was in relation to the APDP program and its impact on exports and localisation. Over the years, the percentage of the incentive for exporting had decreased, and it was considered that by 2020, "it's not going to make sense to export" (SAautocase2_SCM1). However, the incentives had also led the SAautocase2 firm to increase its target for locally sourced context from around 70% to 80% (SAautocase2_SCM1). A further aim of the APDP program was to attract new suppliers to the country, giving an incentive of up to 25 percent back on investment in technology (SAautocase2_SCM1). However, one respondent suggested that the lack of available technological capabilities had, at least in some cases, negated the incentives (SAautocase2_scm1).

Another challenge was the problem of very low cost imported supplies from China, tariffs notwithstanding. A new Chinese plant had opened up in the vicinity of SAautocase1, primarily for truck assembly:

"They typically bring in a trimmed-up truck cab, so it's fully assembled already. They then do a chassis, they screw the (imported) engine and the wheels onto it, and drop a body onto it" (SAautocase1_scm1).

In this case, it was anticipated that there would be a very low level of local content. In 2014, a second Chinese owned assembly plant, Matchedje Motors, opened in Mozambique which is located within the South African Development Community trade bloc; despite an initial intended "production" volume of 30 000 units, the plant only employed 80 workers, suggesting that only the most basic of final assembly was intended (Bloomberg, 25 September 2014).

A different challenge facing the automotive sector was the volatile exchange rate, and the impact that this had on the cost of labour. In the past, South Africa was known for its cheap labour, but it was now competing with other countries, including those within Southern and North Africa and Eastern Europe, where wages of car workers were comparable or lower (SAautocase2_SCM1; SAautocase3_scm1). More generally in South Africa, a lack of investment in electrical infrastructure had led to periodic load shedding, necessitating either significant downtimes or the investment in back up generation capacity.

Further challenges related to differences between the expectations of the parent company and the realities of working in South Africa. The HQ set targets for improved efficiency that the subsidiary should in turn obtain from its suppliers. This was difficult to achieve with a fluctuating exchange rate, and increasing costs in labour and electricity (SAautocase2_SCM1).

A further challenge was complying with employment legislation. One major piece of legislation that was often referred to was the Basic Conditions of Employment Act. Here, it was felt that the automotive industry complied with legislation (SAautocase1_HR1), perhaps

more fully than in other sectors. With regard to health and safety, "Again, I think within the automotive sector in South Africa it's much of a level playing field. I think the sector, however, is way ahead of what's happening in the rest of the industry locally" (SAautocase1_scm2). Similarly, with pay and reward, the basic conditions were set by legislation, but the industry level bargaining council for employers and unions set pay and benefits, and "in most cases if you look at our industry and you take the basic conditions of employment we're significantly higher than that from the remuneration, benefits, et cetera" (SAautocase1_scm2). This had reportedly led to safer working environments and superior terms and conditions of service than in other sectors. Automotive jobs were highly sought after, incentivising existing workers to concentrate on developing their industry-specific human capital.

In contrast, automotive firms seemed to struggle with regard to equal opportunities, which were referred to as a "highly legislated part of our people management". The Employment Equity Act measures how representative a workplace is relative to what is considered to be the economically active population, but was regarded by interviewees as a self-regulated process. It was felt that most manufacturing companies would be underrepresented in terms of females on the shop floor, although graduate training intakes, and new hiring opportunities, tended to be skewed towards equity hires. Moreover, although at the technical level or senior staff level they were fairly well represented, they had major challenges in terms of the profile their leadership. The other piece of legislation commonly referred to was BBBEE, where a score was given to companies based on their profile, in terms of, for example, the number of disabled persons or learners that were supported by the organisation; a strong BBBEE score card is necessary to secure government purchases. Here, it was considered that the OEMs tended to be "significantly better than the supply base"

(SAautocase1_HR1). The supplier's profile contributes to overall scores, and therefore automotive firms had an incentive to monitor and encourage affirmative action by suppliers.

In terms of labour relations, interviewees referred to how studies undertaken by banks and financial institutions had referred to "the quality of our labour relations being almost rock bottom compared to all developed and most emerging markets" (SAautocase1_HR1). The main union representing the automotive sector, and particularly the seven OEMs, was NUMSA, accounting for a membership of between 70 and 95 percent of the hourly workforce. Salaried workers were represented by NUMSA or minority unions such as the historically white Solidarity and the UASA (formerly the United Association of South Africa). However, employees of suppliers were represented by a range of other unions, including those with a different sectoral focus (e.g. transport workers). In the 1980s and early 1990s, industrial relations in the automotive sector was referred to as "very, very turbulent", but since 1995 there had been "relative stability" with a cycle of three yearly agreements across the OEMs, with the exception of sequential strikes in the automotive components industry in 2010, and localised strikes since that time (SAautocase1 HR1). However, another interviewee referred to "hardening attitudes from unions and increased militancy" in the sector (SAautocase1_scm1). This may reflect the inability of unions to protect or secure jobs. It may further reflect the extent to which workers through the early 2000s accepted wage restraint in the interests of competitiveness and organisational sustainability, but were now demanding a larger share of value generated.

Supplier base and relationships with suppliers

SAautocase1 had suppliers of components from a range of countries, including Europe, Thailand, China, South Korea, and Brazil (SAautocase1_acct1; SAautocase1_scm1). Over 150 were from South Africa, and a slightly lower number were international

(SAautocase1_scm_6). These were in addition to the suppliers that were supplying goods in kit form (SAautocase1_scm2). SAautocase2 had around 100 suppliers of components (SAautocase2_scm1).

Interviewees were asked about the relationships that they had with their suppliers, and in particular whether there were differences in the relationships with foreign and local suppliers. A supply chain manager in the third company explained that,

"It's actually a physical problem because if we have a supplier, and actually accidents or unfortunate events happen time and time again, a supplier might not stick to the advice you give, a supplier might have a problem with supplying. Should this happen more often, it is much easier for me personally to actually approach a supplier or appear in his facility and perhaps even audit the supplier if need be, if a supplier is just not coming right" (SAautocase3_scm1).

For this company, the challenges of dealing with international suppliers were most prominent during their dealings with the HQ of their own company. The SA subsidiary was required to purchase parts from HQ, but suppliers at HQ did not wish to pander to the concerns of their internal SA buyer. This further illustrates the complexities of a global supply chain.

What had been outsourced, and why?

It was suggested by an interviewee in SAautocase1 that,

"...outsourcing really has been a trend of industry in South Africa for probably 25-30 years. You know, starting with things like security operations, canteen, cafeteria operations and the like, and the more recent trend has been to outsource sub-assemblies, material handling, logistics, those kinds of 'just less than direct' part of the manufacturing process" (SAautocase1_HR1).

This outsourcing seemed to have become quite extensive. Above all, this would reflect a desire to curtail wage costs and to share some of the risks and challenges of managing employment relations. Another interviewee in the same firm referred to the outsourcing of,

"value-added assembly, or sequencing, to the line...everyone [in the automotive sector] is aligned with a partner from a logistics, a warehousing and supply perspective...It arrives on a vessel in the port ...the first time that we touch some of those parts is actually as we secure it to the vehicle. Everything in between that has got somebody who's dealing with it...in some cases we've even had where they take certain of the assembly parts, put them in at assembly level and supply that in to the line side (SAautocase1_scm2).

One of the reasons for outsourcing was simply the ability of the firm to perform the function themselves. When asked if there had been any duplication in functions, the interviewee explained that they had removed duplication through a process of ongoing continuous improvement: "where we've realised we can do it in-house, we've kind of made those changes and it's an ongoing process. So no, I think we've got rid of a lot of any waste that we did have, or duplications" (SAautocase1_scm5). In other words, there was an incentive to outsource production to suppliers where the capability existed, in order to keep staffing as lean as possible. However, more generally, outsourcing, along with voluntary incentivised

exits and forced redundancies had been reportedly linked to changes in the business cycle and demand for the product (SAautocase1_HR1); as noted above, there is global over-capacity in the automotive industry. One car major had made extensive usage of outsourcing within the same factory. However, not surprisingly, outsourcing was not popular with the union:

"There's clearly a big dynamic with the labour unions and so on not to outsource anything. They prefer to in-source I guess, and grow their membership base" (SAautocase1_scm1).

It is worth noting that some suppliers (even one heavily engaged in the assembly of components) were organised by a different union, servicing the transport industry; the transport industry Bargaining Council sets significantly lower wages than its automotive counterpart. Hence, the previous outsourcing of material handling within the factory had caused some difficulties with the trade union. When asked about outsourcing, another interviewee referred to the "fairly stringent labour laws locally in South Africa" but further explained that, "we've negotiated through those successfully, got buy-in from all parties and then we were able to move forward in a, if we can call it, on a voluntary basis, not forced" (SAautocase1_scm2). In other words, even if Bargaining Councils are meant to exclusively cover specific industries, there was some room for flexibility in determining the principal sectoral orientation of a supplier.

Outsourcing within the buyer's own factory

In SAautocase2, one supplier was based in their factory (SAautocase2_HR1). In SAautocase1, the company wished to provide their 'core business' internally, while the material handling

and some parts of the assembly (that could be undertaken by semi-skilled and unskilled workers) were undertaken by other parties (SAautocase1_scm4). Two suppliers were based in their factory. The last significant outsourcing decision had taken place around four years previously, and involved material handling (SAautocase1_HR1). The supplier was based both inside and outside of the factory, and included over 300 people (SAautocase1_scm4). The part that was based outside the factory was merely on the other side of a service road. As it was mainly responsible for material handling, the supplier dealt with warehousing, receiving, and supplying parts to the assembly line. However, around 10% of their work was referred to as "value-added assembly" (SAautocase1_scm4). The 'value-added' side of the work meant that the supplier was given information on SAautocase's manufacturing processes (SAautocase1_scm2), and although primarily a logistics provider was actually involved in the assembly of important car parts.

Interviewees were questioned about the way in which the supplier's role fitted into the production process. In the case of SAautocase1 and the supplier outlined above, the process was as follows. The material supply division of SAautocase1 generated orders. These orders were then sent through to the supplier. The supplier shipped in material to SAautocase1 who received the goods through the supplier. At the point of receipt, there was a safety inspection, and the delivery notes or invoices were checked. If everything was in order, the supplier then offloaded and moved the material into a marshalling area, before moving the material to the correct place in SAautocase1's warehouse. At the other side (the assembly line) when a parts bin was empty, a [name] card acted as an order. The card was collected and scanned and the scan went through to the warehouse. This prompted the supplier to pick the material, get it ready, and ship it to the line. When it arrived at the plant, an internal note was checked, and there was a handover between the plant and the warehouse (SAautocase1_scm4).

In the case of SAautocase1, the use of outsourcing (but inside the factory) was

apparently cost-driven, but was also related to the fact that the supplier came under a different bargaining council:

"We're doing it purely based on a cost, a financial decision that it is cheaper to outsource certain assemblies, because their labour rates are far cheaper than the motor industry labour rates. They belong to a different union. They belong to a transporter's and airline union, where we belong to NUMSA and they're different unions. So they are cheaper in labour" (SAautocase1_scm4).

Can the relationship therefore be described as close or as arms length? The same interviewee was asked about the extent to which they trusted their supplier, and whether their supplier trusted them. He replied,

"I believe that they [supplier mentioned above] do act on our behalf. I do see them as an extension of [SAautocase1]. The contract is not so clear that it will guide them with every single decision they have to make, but yet I do believe that when they act, they act on behalf of our company. So there is a good trust relationship between [SAautocase1] and [supplier]" (SAautocase1_scm4).

He further added,

"I do believe they trust me. My role as such is of a nature where I need to look at my supplier, I also need to look at the company. So I do act on behalf of both, if I can put it that way. So there is trust and they do see that I do stand up for them when it's needed, in the sense that I clarify certain things they might not be putting forward in a good manner. So there is a trust level relationship. They do come to me. Maybe another example of where I can justify that answer is they do come to me if there is

difficulty, because obviously they will work with the entire of [SAautocase1] but I am sort of overseeing and making sure they're meeting their contractual obligations. But they have the freedom to come to me and ask my opinion and my help, and likewise [SAautocase1]" (SAautocase1_scm4).

In SAautocase3, the use of a supplier within the factory was also apparently cost-driven, but further probing indicated that underlying the reduction in costs was two different rationales. The first was the desire to respond to imperatives around localisation:

"...we do outsourcing, and that's not necessarily to modify parts but also in order to control the cost. We actually procure a product, a finished product [describes part]. It is a local part, but it contains...three, yeah, three imported components. So I have to procure the parts from [country of HQ], we stock them, and when I place an order with our supplier, I say, OK, I need to have 100 of these [parts].... So they actually take our components, they actually add them on to their product, they actually then sell it as a finished product, also procured by me. ...So you have almost like one component outsourced, but ordered as a finished product, so the system will then subtract our raw component and actually add this as per the bill of material on to the finished product that I procure from our local source" (SAautocase3 scm1).

However, the way in which costs were saved was also through enhancing the BBBEE rating:

"...our head office didn't understand when [name of company] was supposed to be BBBEE-rated. And we actually worked around this and have a joint venture with a 100% compliant company...The joint venture we have is on site, it is called [name]...The joint venture we have is we procure stock, we keep the stock and [name] calls off their stock as required. They call off and manufacture stock according to

sales orders given by us... So they are here on site. They will draw our stock, they will process it, and they will actually sell it back to us as a finished product (SAautocase3_scm1).

Insourcing

In SAauto1, although it was acknowledged that there had been a global trend toward outsourcing within the industry, there was at the same time some movement back toward insourcing:

"...what I think we're seeing now is selectively OEMs are insourcing some key work, because obviously when you outsource one of the things that happens is you lose a degree of control. So it's one thing to move to identify something as not being core to your operation, so you move it to a third party. In the process presumably, or you'd have a positive business case to do so, you'd lower costs including labour costs. But with that comes a price you pay. So in some cases it may be appropriate to bring, on a limited basis, some work back in" (SAautocase1_HR1).

The same interviewee was asked to explain which areas had come back in. It was explained that this was mainly in the field of technology, in addition to smaller contracts in marketing and advertising. The insourcing of IT had happened as a result of challenges that had appeared across the company when it was outsourced. Therefore, a decision had been taken to insource the IT capability and rebuild capacity. So, as the interviewee explained, "that was an example of an initial outsourcing that didn't go to plan" (SAautocase1_HR1).

Monitoring of supplier HR practices

Within SAautocase1, where suppliers were based in the factory, they were given training on the manufacturing process (SAautocase1_scm2). They were also trained on SAautocase1's safety policies:

"...we will train all of our suppliers who have any presence on our site. We will train all of them in [SAautocase1] safety policies so that even though they're employed by a supplier, the fact that they're on our site would require them to be on the same level of understanding" (SAautocase1_scm1).

Interviewees were asked, more generally, if they were aware of their suppliers' HR practices, or monitored their suppliers on HR issues. The supply chain manager in SAautocase3 replied:

R: As far as I know, we do this in regards of production and we do this in regards of the supply. HR for our supplier – this is nothing we are actually interested in...So we do not audit them for HR (SAautocase3_scm1).

In SAautocase1, a supply chain manager responded as follows:

"What we do, on an ad hoc basis through the supplier council, if there's a need to talk about strike contingency, planning, or bargaining forum updates or any of those kind of things, we would invite our HR [Director] to come to the meeting and he would share information with them. But we don't as a rule get involved in our supplier HR policies" (SAautocase1 scm1).

He was then asked whether there was a policy around the use of temporary or permanent contracts, and replied:

"No. We simply require the suppliers to conform to all prevailing legal and other sort of policies, as well as certain policies that [SAautocase1] may have signed up for along the way. So basically legal requirements, local laws, rules, regulations, occupational health and safety, all of those kind of things, we require them to conform to whatever the acceptable mandated standards are. But we don't dictate to them temp versus permanent workers et cetera... Where we may get involved in a discussion on that is if a supplier performance is suffering as a result of his labour practices, maybe he's using temp workers and he's got a high degree of absenteeism and that's causing quality problems or something. If that is identified as a root cause, we may get involved with a supplier to discuss that. But ultimately, it would be for the supplier to resolve it" (SAautocase1_scm1).

Another supply chain manager in the same company was questioned on the use of temporary labour and issues of quality in first-tier suppliers. He replied,

"We will go in and vet the process to ensure that that is stable. We will then go and also do audits on training, so this is the process, the person that's working, is that person adequately trained...So you're touching on a fairly emotive issue at this point in time in the industry. It's what's referred to as the use of labour brokers. So we don't make direct use of labour brokers, but we do know that some of our suppliers do, and maybe just to put that term in context, again within the rigorous labour laws that we have you cannot take on a person, I need someone to do, I have a function for one

month, two months, three months. It's very onerous to put those in. Our shortest short-term contract at the moment is basically a 12-month contract. So we will bring somebody on board. Again, our agreement is that that person will have medical aid cover, will have provident fund contributions, and we can't administer that for a shorter period than 12 months. So if we have something shorter we use through the supply base, as they see the fluctuations they will bring in people through what is termed a labour broker.

I: Do you have any policy around this, the use of labour brokers?

R: We have a policy internally that we will not make use of them and that's agreed to again with our unions, but we do not have a policy on our supply base, as to their use (SAautocase1_scm2).

The only areas where monitoring seemed to take place was with regard to equity (since it was a requirement of national legislation) and in the field of industrial relations (e.g. anticipated wage rises or industrial action). This is illustrated through the following responses to questioning about the sharing of HR information with suppliers:

"With the suppliers we do have the supplier forum, where HR meets with them and goes through, you know, just for example what are our latest rates that we're paying, what's happened with the negotiations, and HR is the driver for that" (SAautocase2_HR1)

"If there was a, there was mutual benefit in doing that, we would. So when, if they face a labour issue, we may, apart from the purchasing or the manufacturing or the technical people talking to each other, we may get involved HR to HR, labour

relations to labour relations to understand the issues. So there's no prohibition on sharing information, but there would need to be an evident mutual advantage before we would do so...I'm probably going back two-odd years, there was some engagement through the supplier council where we spoke about lessons from our prior auto industry negotiation cycle, and we gave them a few pointers to what we thought they could expect when they got into their negotiations" (SAautocase1_HR1).

I: do you know if your suppliers recognise the trade union, do you know about that? R: Yes, we do this, we update this and we update this actually on a regular basis. Whenever there is a spectre of a strike looming we obviously approach our first tier supplier and ask them to also approach the second-tier supplier in regards of the union affiliation (SAautocase3, scm1).

One of the reasons for the companies' lack of monitoring of suppliers may have been due to their confidence in large suppliers. When asked if they tried to ensure that HR practices with tier one suppliers were guided by international labour standards or their own codes of conduct, a supply chain manager from SAautocase1 replied,

"Not necessarily. Our codes of conduct, a lot of our tier one suppliers are also multinational companies, so they will have their own internal policies, procedures and codes of conduct" (SAautocase1_scm2).

More generally, relations seemed to become even more arms length, and even obscure, fairly soon further down the supply chain, as the following interview excerpt reveals:

"I: Do you consider that you have any responsibility for the labour conditions of your tier 2 suppliers?

R: No.

I: No, OK.

R: Having said that, of course we would expect that any party that we do business with needs to be in full compliance with the law...It goes without saying, I think. So you know, if we found that there was an out of line condition, that there was a refusal to follow, I mean the most basic obvious statute is the basic conditions of employment act. If there was a non-compliance that resulted in legal action, labour issues and so on, that may result in our intervention. But you know, having said that I'd be hard-pressed to find an example in the auto sector, which as I said is I think a relatively more refined industry or sector than others in the economy where you find flagrant disregard of basic laws. It just, I don't think it happens. But if it did, we would intervene" (SAautocase1_HR1).

A supply chain manager in the same company explained,

R: "We don't have a number that we track in terms of second-tier suppliers. We do know who some of them are, where they also happen to be a first-tier supplier, and that will be predominantly in the pressings and stampings side of the business.

I: And so you don't really have much to do with your second-tier really, they're just sort of quite...

R: Only if the first tier phones us and we have a problem" (SAautocase1_scm2)

Discussion and conclusions

Central to the relative success of the South African automotive industry has been the recasting of relations with suppliers. In the apartheid era, the system favoured the use of local suppliers producing low technology and high bulk components, to help to ensure that as much weight as was physically possible was locally sourced. At times, this led to quality concerns being sacrificed on the altar of expediency. The ending of apartheid and tariff reforms now favour local suppliers that generate high value added products, whether these products are used in locally produced cars or directly exported. Many local suppliers have battled to cope with this challenge; whilst there have been clear success stories, many remain orientated towards the delivery of basic services and components. The reforms have also enabled car firms to become much more flexible in sourcing components, leading to a patchwork of relations with suppliers, some arms' length, and some local. However, there is little doubt that car majors have retained their dominance; whatever skills, knowledge or capabilities suppliers may have, they clearly have had to amend what they do in the light of the changing needs of the majors.

Secondly, this has led to the increased use of both outsourcing and insourcing. In terms of the former, this has involved the use of external providers for basic infrastructural services (e.g. cleaning, catering) through to logistics and warehousing, and even to aspects of assembly. This has primarily been on the basis of cost-cutting, a desire to keep the core labour force as small as possible, and to circumnavigate Bargaining Council coverage or employment equity requirements; however, it has, in the case of logistics, also enabled firms to access the specialised capabilities of multinational firms servicing the automotive industry, facilitating just in time production. Although South Africa has a very progressive body of

labour legislation, workers for suppliers (especially those falling under a different Bargaining Council) may have somewhat inferior terms and conditions of service.

Thirdly, a major achievement has been to secure much more cooperative employment and work relations since the end of apartheid, albeit that there has been an upsurge in industrial action in recent years. This appears to be, to a large extent, due to perceptions of unfairness around the distribution of any gains from the motor industry's recovery, and a continued climate of job insecurity. In common with other newly industrialised economies, the automotive industry in South Africa has faced job loss against the competition from lowwage exporting countries (Milberg and Winkler, 2013).

Finally, and most importantly, the continued survival and prosperity of the motor industry and its suppliers cannot be taken for granted. There remains a tendency towards improvised solutions for structural challenges (for example, measures to curtail costs rather than build capabilities for future growth). Again, despite decades of measures to promote local content, there remains a tendency for sophisticated and high value added components to be imported, with local suppliers producing more easily substituted goods; indeed, it could be argued that the South African motor industry primarily remains a CKD orientated one, with suppliers being aligned to this paradigm of production.

At a theoretical level, the study both highlights the limitations and potential of GVC theory. The study confirms that within global value chains, there is a tendency for key actors to dominate, and in the case of the motor industry, this means the car majors (Sturgeon et al. 2008). However, the study also points to an industry where imbalances, flows of products, and the relative advantage of specific locales depends on historical legacies and idiosyncracies; it is easier to maintain or reconfigure a production chain than establish a new one ab initio. One of the major reasons that the car majors have persisted with South Africa has been to recoup decades of investment. Their survival is also because of the development

of a local ecosystem of quite efficient local suppliers that are closely attuned to the needs of the car majors; at the same time, the relative advantage of suppliers remains tenuous, on account of limitations in technology, capital and skills. Moreover, although car firms may closely integrate production and share key knowledge with a core supplier (Sturgeon et al. 2008), the supply ecosystem is a diverse one; close relations with key suppliers coexist with arms' length ones with others. Indeed, the study highlighted a basic lack of knowledge by automotive majors of most second, third tier and beyond suppliers, other than basic information to meet equity targets. A further limitation of GVC theory is that it treats the dominant firm as a coherent actor, when in the case of the South African automotive industry, the density of ties and control between South African subsidiary and major has varied over time and by maker. In the South African case, subsidiaries of the automotive majors are at once dominant and subordinate. In some instances, they have had a fair degree of autonomy in negotiating and redefining key relations with suppliers. In others, they have had to adjust in line with global sourcing decisions set by the major. In some cases, the latter has entailed entering into arms length relations with suppliers in Asia. Whilst relations with local suppliers are much closer, with a sharing of ideas, technology, and work and employment relations paradigms, many South African suppliers continue to lack the access to capital and technology, very cheap labour and economies of scale, enjoyed by new competitors from the Far East. Whilst automotive majors may reap short term benefits from the latter, with it comes a loss of intimate knowledge and the risks of hidden long term quality issues.

References

AllAfrica.com. (2014) *South Africa: CWU statement on the Telkom employment equity policy and plan.* 18.7.14. Available at: http://allafrica.com/stories/201407181557.html.

Arias-Aranda D, Bustinza O F and Barrales-Molina V (2011) Operations flexibility and outsourcing benefits: an empirical study in service firms. *The Service Industries Journal*, 31(11): 1849-1870.

Azneh S and Nadvi K (2014) Asian Firms and the Restructuring of Global Value Chains, *International Business Review*, 23: 708-717.

Bryson, A and White M (2006) *Unions, within-workplace job cuts and job security* guarantees. Centre for Economic Performance, London School of Economics and Political Science.

Barchiesi F (1996) *A study of the South African Motor Assembly Industry*. Paper presented at the Annual Conference of South African Sociological Association, Durban.

Barnes, J (2000) International Perceptions of South African Automotive Component Manufacturers Performance Levels. Durban: Industrial Restructuring Project, University of Natal.

Belcourt M (2007) Outsourcing – The Benefits and Risks, *Human Resource Management Review*, 16: 269-279. Black, P. and Mitchell, S. 2002. Policy in the South African Motor Industry", TIPS 2002 Industrial Policy Forum, Muldersdrift.

Bloomberg. (2014) *Mozambique automakers first cars leave the production line*, Bloomberg 25 September 2014. Available at: http://www.bloomberg.com/news/articles/2014-09-25/mozambique-automaker-s-first-cars-leave-assembly-line.

Bronkhorst E, Steyn J and Stiglingh M (2014) *The automotive production and development programme : an analysis of the opinions of South African stakeholders*. Unpublished working paper, University of Pretoria.

Buhlungu S, Wood G and Brookes M (2008) Trade unions and democracy in South Africa: union organizational challenges and solidarities in a time of transformation, *British Journal of Industrial Relations* 46(3): 439-468.

Car (1997) Chevrolet Nomad multiple purpose vehicle. May 1997 Johannesburg: 68-71.

Flatters and Netshitomboni (2006) *Trade and poverty in South Africa: motor industry case study.* Trade and Industrial Policy Project, SALRDU, University of Cape Town.

Contreras O and Carillo J (2014) Local entrepreneurship in global value chains: a case study of the global automotive industry, *World Development*, 40(5): 1013-1023.

Coyle-Shapiro J and Kessler I (2000). Consequences of the psychological contract for the employment relationship: A large scale survey. *Journal of Management Studies*, 37(7): 903-930.

Cox A (2004) The art of the possible: relationship management in power regimes and supply chains. *Supply Chain Management: An International Journal*, 9(5): 346-356.

Embleton P R and Wright P C (1998) A practical guide to successful outsourcing. *Empowerment in Organizations*, 6(3), 94-106.

Furlonger D (2014) South Africa's thriving car industry set to crash, *Business Day*, 25 February 2014. Johannesburg. Available at:

http://www.bdlive.co.za/business/trade/2014/02/25/sas-thriving-car-industry-ambition-set-to-crash.

Gereffi G (1994) The organization of buyer-driven global commodity chains: how U.S. retailers shape overseas production networks in G. Gereffi and M. Korzeniewicz (eds) (1994) *Commodity Chains and Global Capitalism*. Westport: Praeger.

Gereffi G, Humphrey J and Sturgeon T (2005) The governance of global value chains. *Review of International Political Economy*, 12(1): 78-104.

Greve N (2014). *Zuma signs BBBEE Amendment Bill into law*, Jan 30, 2014. Available at: http://www.engineeringnews.co.za/article/zuma-signs-bbbee-amendment-bill-into-law-2014-01-30. Harms P, Lorz O and Urban D (2012) Offshoring along the production chain. *Canadian Journal of Economics/Revue canadienne d'économique*, 45(1), 93-106.

Humphrey J and Memedovic O (2003) The global automotive industry value chain: what prospects for upgrading by developing countries. *UNIDO Sectorial Studies Series Working Paper*.

Humphrey J Globalization and supply chain networks: the auto industry in Brazil and India', *Global Networks*, 3, 2: 121-141.

James J (2014) A history of Cumming and Gearing. Johannesburg: Castings SA.

Kohler W (2004) International outsourcing and factor prices with multistage production. *The Economic Journal*, 114(494), C166-C185.

Maree J (1987) Overview: the emergence of the independent trade union movement. In Maree, J.(ed), *The Independent Trade Unions*. Johannesburg: Ravan.

Milberg W and Winkler D (2013) *Outsourcing economics: global value chains in capitalist development*, Cambridge: Cambridge University Press.

Naude M J and Badenhorst-Weiss J A (2011) Supply chain management problems at South African automotive component manufacturers', *Southern African Business Review*, 15(1): 70-99. Quinn J B (1999) Strategic outsourcing: leveraging knowledge capabilities. *Sloan Management Review*, 40(4): 9-21.

Republic of South Africa (1997) Basic Conditions of Employment Act 1997. Available at: http://www.labour.gov.za/DOL/downloads/legislation/acts/basic-conditions-ofemployment/Act%20-%20Basic%20Conditions%20of%20Employment.pdf. Accessed 27.1.15.

Republic of South Africa (2014) Employment Equity Amendment Act 2013 Available at: http://www.labour.gov.za/DOL/legislation/acts/employment-equity/employment-equity-act

Sheehan C (2009) Outsourcing activities in Australian organizations, *Asia Pacific Journal of Human Resources*, 47(2): 236-253.

Steyn L (2013) SA motor incentives insufficient, *Mail and Guardian* (Johannesburg), 11 October 2013. Available at http://mg.co.za/article/2013-10-11-00-sa-motor-incentivesinsufficient

Sturgeon T, Van Biesebroeck J, and Gereffi G (2008) Value chains, networks and clusters: reframing the global automotive industry. *Journal of Economic Geography*, lbn007.

Topcar (2010) *Lone Ranger*. 5 March 2010. Available at: http://topcar.co.za/first-drives/lone-ranger/

Verster R (2014) A South African Mini Story. Bucholz: Limora.

Von Holdt K (1990) Mercedes-Benz & NUMSA, South African Labour Bulletin, 16(4):15-26.

Watson L (2014) A brief history of Chevy's Inline Six. Cleveland: Chevy Classics.

Wills J (2009) Subcontracted employment and its challenge to labor, *Labor Studies Journal*, 34(4): 441-460.

Figure 1: Relational configurations between core automotive firms and their suppliers

	Foreign suppliers	Local suppliers
High value added and	Purchasing from specialist	Suppliers located within the
specialised production with	foreign firms, within the	same country or inside the
high labour standards	same region, or from	factory in order to ensure
	company HQ	high quality products and
		high labour standards
Low value added, cost	Purchasing from suppliers	Outsourcing to suppliers
cutting and low labour	that are not from the home	located within the same
standards	country, and have lower	factory in order to cut costs;
	labour costs (e.g through	use of labour brokers
	offshoring)	