

The background of the cover features a photograph of a man in a blue work shirt and safety glasses, wearing grey gloves and working on a car chassis in a factory setting. The man is looking intently at his work. The overall scene is brightly lit, typical of an industrial environment.

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# NEW WORLDS of WORK

Varieties of Work in Car Factories  
in the BRIC Countries

ULRICH JÜRGENS  
MARTIN KRZYWDZINSKI

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*Varieties of Work in Car Factories in the  
BRIC Countries*

ULRICH JÜRGENS AND  
MARTIN KRZYWDZINSKI

*Translated by*  
Pete Burgess

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Ulrich Jürgens and Martin Krzywdzinski

*Berlin, September 2015*

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## *List of Abbreviations*

ABC-Region	Region formed by the three cities Sao Bernardo do Campo, Santo Andre and Sao Caetano (Brazil)
AC	Assessment Centre
ACFTU	All-China Federation of Trade Unions
AHK	Außenhandelskammer (The German Chamber of Foreign Trade)
ASM	The Automobile and Agricultural Machinery Workers' Union (Russia)
AvtoVAZ	Volga Automobile Plant (Russia)
BRIC	Brazil, Russia, India, China
BWT	Basic Work Teams
CAD	Computer-Aided Design
CIP	Continuous Improvement Process
CIPA	Comissão Interna de Prevenção de Acidentes (Mandatory Health and Safety Committees) (Brazil)
CKD	Complete Knocked Down
CL	Cell Leader
CLT	Consolidação das Leis do Trabalho (Employment Legislation) (Brazil)
CUT	Central Única dos Trabalhadores (Unified Workers Central) (Brazil)
DC	Development Centre
DIEESE	Departamento Intersindical de Estatística e Estudos Socioeconomicos
ERC	Employee Relations Committees (India)
ERO	Employee Relations Officer (India)
ETKS	Uniform Handbook for Wages and Professional Qualifications (Russia)
FAL	Fertigungsabschnittsleiter (Manufacturing Section Head) (VW)
FAW	First Automotive Works (China)
FGTS	Fundo de Garantia por Tempo de Serviço (Severance Pay Fund) (Brazil)
Five S (5S)/ Four S (4S)	Seiri (sort), Seiton (straighten), Seiso (shine), Seiketsu (standardize) (classically 4S at Toyota), Shitsuke (sustain)
FMDS	Floor Management Development System
FNPR	Federatsiya Nezavisimykh Profsoyuzov Rossii (Federation of Independent Trade Unions of Russia)
GAZ	Gorky Automobile Plant (Russia)
GDP	Gross Domestic Product
GL	Group Leader
GLOBE	Global Leadership and Organizational Behaviour Effectiveness
GM	General Motors
HPWS/P	High Performance Work Systems/Practices
HR	Human Resource



HRM	Human Resource Management
HSC	Higher Secondary Certificate (India)
I-4	CIP-Programme at Mahindra & Mahindra (ingenious, ideas, incubation, implementation)
IBM	International Business Machines
IE	Industrial Engineering
IG Metall	Industriegewerkschaft Metall (Industrial Union of Metalworkers) (Germany)
IHK	Industrie- und Handelskammer (Chamber of Trade and Industry) (Germany)
ILO	International Labor Organization
IMVP	International Motor Vehicle Programme
IR	Industrial Relations
IT	Information Technology
ITC	Industrial Training Centre (India)
ITI	Industrial Training Institute (India)
KPI	Key Performance Indicator
KPMG	Klynveld, Peat, Marwick and Goerdeler Professional Services (Consulting Company)
MAPS	Mahindra Advance Manufacturing Production System
MBQ	Meisterbasisqualifikation (Basic Meister Qualification) (Germany)
MIT	Massachusetts Institute of Technology
M&M	Mahindra & Mahindra
MNC	Multinational Corporation
MPRA	The Interregional Trade Union of Automobile Workers of Russia
NCVT	National Council for Vocational Training (India)
NTs	Nomadic Tribes (India)
NTC	National Trade Certificate (India)
OBC	Other Backward Classes (India)
Off-JT	Off the Job Training
OJT	On the Job Training
OSHMS	Occupational Safety & Health Maintenance System
PDCA	Plan-Do-Check-Action
PID	Programme to identify, evaluate, and train future managers (VW do Brasil)
PMP	Programa de Melhoria da/dos Productividade/ Processos (Equivalent to CIP at VW do Brasil)
PQCDME	Productivity, Quality, Costs, Delivery, Morals, Ergonomics (Mahindra & Mahindra)
PSA	Peugeot Citroën
PTU	Vocational Technical School (Russia)
QCC	Quality Control Circle
QRK	‘Qualitätsregelkreis’ (VW)

R&D	Research and Development
RMB	Renminbi (Chinese currency)
SAIC	Shanghai Automotive Industry Corporation
SCs	Scheduled Castes (India)
SENAI	National Service for Industrial Training (Brazil)
SENAC	National Service for Commercial Training (Brazil)
SKD	Semi Knocked Down
SOP	Start of Production
SOS	Standard Operating Sheet
SSC	Secondary School Certificate (India)
STs	Scheduled Tribes (India)
STWK	Standardized Work
SUR	Sistema Único de Representação (Unitary Body for Employee Representation) (Brazil)
SUV	Sport Utility Vehicle
SVW	Shanghai Volkswagen
TBP	Toyota Business Practice
TCS	Toyota Communication Skills
TDS	Trainee Development Scheme (India)
TEDA	Tianjin Economic-Technological Development Area
TJI	Toyota Job Instruction
TL	Team Leader
TM	Team Member
TMC	Toyota Motor Corporation
TMT	Team Member Trainee (India)
TPM	Total Productive Maintenance
TPS	Toyota Production System
TTI	Toyota Training Institute (India)
URB	United Representative Body
USSR	Union of Soviet Socialist Republics
UNO	United Nations Organization
VoC	Varieties of Capitalism
VW	Volkswagen



# Introduction

## 1.1 RESEARCH QUESTIONS AND PROBLEMATIC

Industrial work is often viewed as obsolescent in the industrialized countries. Worldwide, however, the industrial sector continues to grow. In particular, new centres of industry are emerging in the so-called BRIC countries (Brazil, Russia, India, and China), where recent years have seen the opening of large numbers of plants and the creation of many industrial jobs. This process has been prompted by several factors. The BRICs' own domestic markets have grown, in some instances very dramatically, and multinational companies want to share in this growth while also taking advantage of the low-cost environment for their international operations.

The voluminous research literature on these factors and processes, and the transformations they have set in train in these countries, plays an important role within the wider discussion of globalization. However, despite this academic attention, little is known about the work and lives of employees in these new factories. Much of the interest in developing country industrialization has tended to focus on the poor working conditions that characterize some export-oriented sectors in emerging economies, most notoriously in the garment industry. This study addresses a different phenomenon. Our concern is with the modern facilities run by multinational or local manufacturers that reflect aspirations for a process of industrial upgrading that might point to a contrasting future for these countries. The assembly plants belonging to the multinational and national car manufacturers included in our research produce for BRICs' domestic markets and do not serve solely as 'low cost' export platforms. Not only do these plants typically not compete head-on with those in the older industrialized countries; in certain respects, at least this was our initial supposition, they might even constitute prospective models for the formers' production systems and approaches to personnel management. In this sense, this study not only aims to explore instances of factory life in regions deemed remote from, and peripheral to, the traditional industrial heartlands of Western Europe, North America, or Japan but also to establish whether and how these new operations might feed back into and transform industrial work in the 'core'. Our main research interest in studying these plants is not to benchmark their operations and practices in terms of operational efficiency. Rather, it focuses on the encounter between multinational companies and the traditional manufacturing methods and patterns of behaviour that have prevailed in the BRICs and the responses and changes prompted by the multinationals' production and HRM systems, both directly in their own plants but also in related policy areas and institutions.

The centrepiece of this study is an exploration of the worlds of work at workplaces in the BRIC countries. As the concept of the ‘world of work’ might suggest, we decided to cast the net very widely in terms of the scope of the research: that is, the study is based on the assumption that industrial relations, employment systems, and personnel and human resource (HRM) approaches within companies cannot be understood in isolation from their cultural, institutional, and regulatory contexts. At the same time, given its breadth, this concept also suggests that we would expect to find considerable differences between the case-study companies in the BRICs: indeed, this was one of the major motivations for undertaking this research. In this sense, we expected, like Dore in his legendary comparative study *British Factory—Japanese Factory*, to be confronted with the riddle of ‘how there should be built around two all but identical [products], two such very different ways of ordering the social relations . . . between the people involved’ (Dore 1973: 10).

In contrast to much of the current literature, our starting point is not the perspectives and strategies of firms’ headquarters and their efforts to transfer management approaches from their home countries to the BRICs (on this see, for example, Abo 1994; Almond and Ferner 2006; Elger and Smith 2005; Kristensen and Zeitlin 2005). Rather, we focus on the specific perspectives of the actors at the BRIC operations. Our approach was exploratory, in some respects drawing on the methods charted by Grounded Theory (Charmaz 2006; Corbin and Strauss 2008). The research was also guided by an interest in conducting comparative research across three dimensions in terms of their impact and influence on HRM practices: firstly, the influence of nationally specific features and differences; secondly, that of company-specific features and differences; and thirdly, differences between multinational and local manufacturers. We return to the research field and our methodology in more detail in section 1.5 below.

Our aim is to provide an analysis of work, its local environment, and the situation of employees in plants in the BRICs in the context of globalization, focusing on three main questions:

1. What differences and common features characterize countries and firms in the fields of workplace HR management and production systems? More specifically, is the worldwide diffusion of lean production leading to a convergence between companies’ HR and employment strategies or might the existence of distinctive national features thwart the realization of such a model?
2. How are operational standards, determined at corporate level, implemented in local contexts? Do these displace local—and viable—approaches to resolving problems that might be more effective than company-wide standards; or, alternatively, can local standards make a positive contribution to how these firms manage their BRIC operations?
3. What evidence is there for either a ‘high road’ or ‘low road’ path of development in the BRICs? Specifically, to what extent do companies aim to take advantage of low wage costs and weak regulation to configure a ‘low road’ model or is their priority one of investing in their workforces and creating socially sustainable structures?

The first of these questions is part of the traditional debate over convergence and divergence in production and personnel systems, and corresponding

company and national models, which has been underway since the 1990s (Lawler and Hundley 2008; Almond and Ferner 2006; Kostova and Roth 2002; Boyer et al. 1998; Elger and Smith 1994). Beginning in the early 1990s, and driven partly by the influence of the 'Japan debate' (Oliver and Wilkinson 1988; Jürgens et al. 1993; Kenney and Florida 1993), Western car manufacturers have restructured and standardized their production systems in line with the lean production model. At the same time, differing corporate traditions, and their associated interpretations of how lean production is to be implemented in practice, have persisted. Given these forces for both convergence and the persistence of difference, there is still uncertainty as to whether companies' employment systems will ultimately move to a single model. One of the core propositions of the case for convergence is that lean production systems necessitate certain HRM approaches (Appelbaum et al. 2000), typically subsumed in the literature under the rubric of 'high performance work practices' (HPWP): these include teamwork, worker involvement in improvement processes, extensive training and skill development, performance- or competency-based variable pay elements, and extensive employee-oriented information and communication.<sup>1</sup> In contrast to this, given the embeddedness of HRM systems in national contexts, efforts to standardize HRM practices evidently continue to face many challenges and difficulties.

Our second question deals with the standardization of personnel systems within multinational companies: do the multinational car manufacturers export their HRM systems to the BRIC countries, do they adapt themselves to local circumstances, or are the BRIC countries deliberately used as means for 'regime flight' from the models that prevail at their home bases (see Jürgens and Krzywdzinski 2010; Meardi et al. 2013)? Research into multinational companies highlights both their efforts at standardization as well as the need to adapt to host laws, institutions, and cultures (Fayerweather 1978; Bartlett and Ghosal 1987). HRM is viewed as a management function that is especially subject to local factors and, as a consequence, one seen as difficult to standardize (Rosenzweig 2007).<sup>2</sup> There is also a third option alongside transferring home-country standards or adapting to host-country standards. In a comparative study of HRM practice in German, Japanese, and US multinationals and their subsidiaries, Pudelko and Harzing (2008) reported the surprising finding that neither the subsidiaries of German companies in Japan nor Japanese subsidiaries in Germany had adopted either German or Japanese approaches: rather, both groups were found to have implemented HRM practices that these authors denoted as a US American HRM model, a circumstance they interpreted as suggesting the existence of a dominant 'global best practice' HRM model that influenced processes of standardization within firms and had the potential to lead to global convergence.

Our third question refers to the hopes and fears associated with the rise of the BRICs. The direction in which the BRICs are developing is a contested one. Is their rise based on the exploitation of a precarious and insecure workforce,

<sup>1</sup> In this study we use the term 'High Performance Work Practices' (HPWP) as a synonym for 'High Performance Work Systems' (HPWS). HPWP is also now seen as a portmanteau term for High Involvement and High Commitment Work Practices (Festing 2012: 41).

<sup>2</sup> In this study, we use the terms 'human resources' and 'personnel' management as synonyms both for the corresponding management function and the organizational unit within companies.

condemned to toil in ‘sweat shops’; or might they increasingly represent locations for the factories of the future? Is industrial work in the BRIC countries moving towards models now customary in the traditional industrialized countries; or might they be the sites for entirely new approaches to industrial work?

The question of ‘high road’ and ‘low road’ has a specific relevance for the car industry. Car manufacturers in Western industrialized countries typically offer high wages and stable employment. Will this also be the case in the BRICs? Because this study was confined to manufacturers’ assembly plants, the final link in the value-added chain, and also due to car industry’s status as, for the most part, a politically privileged branch, it would be reasonable to expect it to tend towards a ‘high road’ path. However, car manufacturers—and in particular the national more than the multinational firms—are also faced with a strategic choice: to what extent should they make use of the cost advantages created by the large reservoirs of labour and, in some instances, weaker regulation or more permissive approach to enforcement in the BRICs?

We consider that the main theoretical contribution of this study lies in the area of the convergence or divergence of industrial worlds of work as a consequence of globalization. There are three theoretical strands in this area, each of which looks at this issue from a different aspect. The first of these turns on the debate over High Performance Work Systems (HPWP) already referred to above. One aim of this field, which has expanded enormously in recent years, is to identify practices in work organization and HRM that can generate, or explain, organizational ‘high performance’. The debate began in the 1980s when researchers began to explore the reasons for the superiority of Japanese manufacturing companies when compared with their European or North American competitors identified by the originators of the concept of ‘lean production’ at the MIT International Motor Vehicle Program (Womack et al. 1990). Discussion of ‘lean production’ initially focused on the principles underpinning the design of production systems. The aspiration of these authors to formulate a universal ‘best practice’ model triggered an intense debate around the issue of the national and company-level convergence and divergence of production models (see Freyssenet et al. 1998). One important element in this was the idea of complementarity between the principles for designing production systems and those for HRM. Beginning in the early 1990s, a number of authors (Milgrom and Roberts 1992; MacDuffie 1995; Pil and MacDuffie 1996) argued that, rather than being effective in isolation, ‘good’ HR practices worked best when combined into ‘bundles’ that would bolster the effects of lean production on organizational performance. The HPWP discussion has since broadened considerably to embrace a diverse range of practices, with effects largely explained by work psychology models based on the combined effect of job satisfaction, organizational commitment, and performance incentives. We consider this literature in greater detail in Chapter 2. Our starting assumption in this research was that the claimed effects of HPWP practices will have influenced the design of work and employment systems in the BRICs, but that large differences were likely to be found in how these systems would be implemented and operate in view of the varying institutional arrangements, distinctive cultures, and constellations of actors to be found in each of the BRIC countries. As we detail below, in designing this research programme, we decided to focus on those practices for which we expected to find such differentiating influences.

One strand of the HPWP debate has engaged with the issue of the extent to which introducing the corresponding practices weakens employees' desire or willingness to organize or join a trade union. This aspect was taken up at a fairly early stage in the British and North American discussion (see, for example, Fiorito et al. 1987; Ichniowski et al. 1997; Godard and Delaney 2000), and turned on whether HPWP could be seen as a 'union avoidance' strategy, an interpretation of HPWP linked with the fact that most analyses do not view unionized forms of employee representation as an integral part of HPWP. This also fits with the argument advanced by Katz and Darbishire (2000), according to which the global convergence of HR practices was enabled by the decline in trade union strength and the erosion of national collective bargaining systems.

As far as the second main theoretical strand is concerned, we draw on Marsden's *Theory of Employment Systems* (1999). In contrast to the previous strand, which suggests a process of global convergence based on lean production and HPWP, Marsden's theory argues for the persistence of differences as a consequence of variations between national employment systems. His starting point is that the inevitable incompleteness of employment contracts offers employees and employers scope for opportunistic behaviour—that is the exploitation of situational advantages and power to gain a one-sided advantage from the contractual relationship.<sup>3</sup> In order to forestall such behaviour, employment rules have been developed in the traditional industrialized countries, Marsden's principal concern, which shape actors' dispositions and ensure that the workplace parties operate within mutually acceptable behavioural frameworks. How is this issue resolved in the BRICs? And to what extent do multinational firms attempt to export home-country standards from their corporate centres and implant them in the BRICs?

The situation in the BRIC countries suggests considerable scope for opportunistic behaviour. Huge labour markets, workforces in the new plants consisting largely of employees lacking industrial experience, traditions of authoritarian leadership, and weak institutions for employee voice and representation all create a wealth of opportunities for employers to recalibrate the 'terms of trade' of the employment relationship to their advantage and engage in opportunistic practices. At the same time, multinational companies' inexperience in the BRICs creates scope for opportunistic behaviour by employees and their representatives.

Our third theoretical strand focuses on the role of cultural characteristics as enablers of or obstacles to the implementation of companies' production and HRM systems. At this juncture, culture-based theories come face-to-face with the largely universalistic aspirations of HPWP approaches. Cultural theories emphasize how commonly-held patterns of thought and behavioural norms might play a role in issues such as team self-organization and the acceptance of hierarchical

<sup>3</sup> Within economic theory, opportunism is denoted as behaviour that is solely directed as maximizing an agents' interest at the cost of other agents, including the use of deception, cheating, and other forms of prejudicial conduct. Williamson (1996: 6) used the term 'self-interest seeking with guile'. It is one of the central concepts of agency theory (Lazear 1999) and transaction cost theory (Williamson 1985).

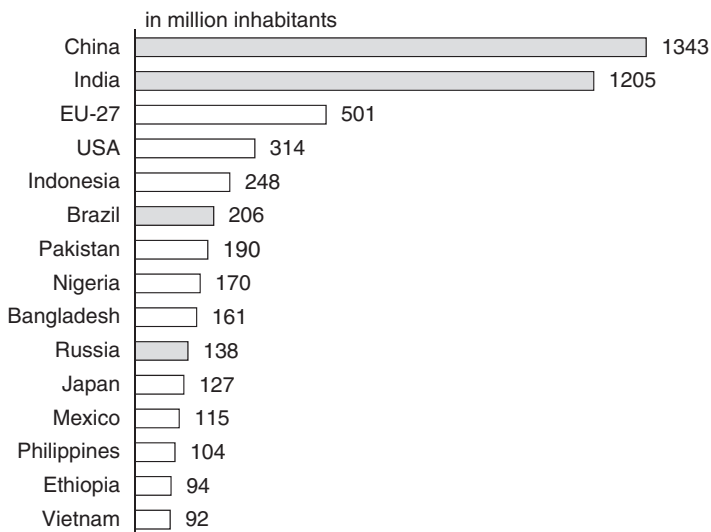


power, the acceptability of individual or collective incentive systems, or individual willingness to take on responsibility (Hofstede 1984; House et al. 2004). These modes of thinking and behaviour also affect leadership styles, team cooperation, and how collective interest representation operates. However, cultural theories are typically located at the level of macro- and national cultures, in some instances assuming that organizational cultures are broadly unchanging; by contrast, our specific concern is with workplace and company cultures.

The following sections introduce, first, the BRIC countries and then the companies in our study. We then describe the plants where we conducted research, and our research procedure and methodology. This introductory chapter concludes with an outline of the main contents and questions addressed in subsequent chapters.

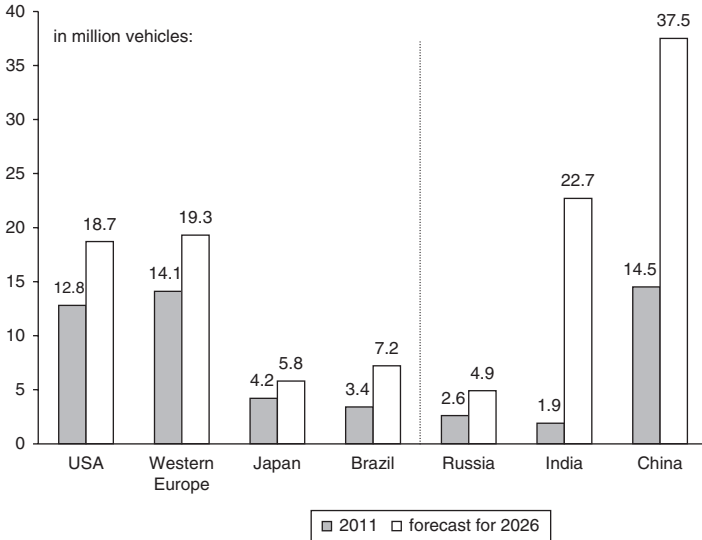
## 1.2 THE BRICS: BRAZIL, RUSSIA, INDIA, CHINA

The BRICs, a term coined in 2001 by Jim O'Neill, then of Goldman Sachs, constitute a group of countries with very diverse political systems, regulatory environments, and cultures but also sharing three characteristics that differentiate them from other emerging economies (for the debate on the special features of the BRICs, see Io Lo and Hiscock 2014). Firstly, they are amongst the ten most populous countries on earth, with China and India topping this list by a large margin, as Figure 1.1 illustrates. As such, they have at their disposal enormous *reservoirs of labour*.



**Figure 1.1** Fifteen most populous countries (incl. EU-27), population in millions 2012

Source: Figure created by authors from data in CIA (2012)



**Figure 1.2** Vehicle sales: 2011 and forecast for 2026

Source: Figure created by authors from data in OICA (2013), KPMG (2012)

Secondly, the BRICs are characterized by rapidly growing domestic markets, in particular for passenger cars. Compared with other populous emerging and developing countries, such as Pakistan, Nigeria, or even Indonesia, the BRICs represent significant car markets and have sufficient levels of income in relevant consumer segments to ensure that these markets will probably grow for some decades to come. Figure 1.2 sets out vehicle sales for the BRICs in 2011 in comparison with the core countries of the Triad, together with KPMG's forecast for 2026. By 2011, the Chinese market had already overtaken sales in Western Europe and North America. In contrast, in 2011 markets in Brazil, Russia, and India were at the level of medium-sized European countries, although very substantial growth was expected for the medium term.

Thirdly, the BRIC group is notable because of its *political significance*. Russia and China are both members of the UN Security Council and heavyweights in world politics, and the significance of these countries is likely to grow in the future on issues of industrial standard-setting. With the inclusion of South Africa since 2010, the 'BRICS' have formed a group of nations whose heads of government have met regularly for annual consultations since 2009 and which aims to represent a counterweight to the Western industrialized countries (Glosny 2010; Mudunuru 2013). However, South Africa was not included in our study on grounds of the size of its population and fairly limited car market.

In terms of manufacturing productivity and innovation, however, the BRICs still lag behind the advanced industrial countries. According to the *Global Competitiveness Report* (Schwab 2013), published annually by the World Economic Forum, Brazil, Russia, and India are in mid-table position; only China is well en route to joining the leading group of nations. All four countries have major problems in terms of infrastructure, institutional efficiency, education and training,

and widespread corruption. The *Global Competitiveness Report* distinguishes three stages of economic development: the competitiveness of ‘factor-driven economies’ depends mainly on low-cost labour and natural resources; ‘efficiency-driven economies’ are especially competitive in manufacturing complex industrial products and have effective education and training systems together with efficient markets for goods, labour, and finance. ‘Innovation-driven economies’ represent the highest stage of development: these are able to develop new products and business models. The *Global Competitiveness Report* characterizes Brazil and Russia as countries engaged in the transition from an efficiency-driven economy towards an innovation-driven economy. China is designated as an efficiency-driven economy and India is deemed to be still at the level of a factor-driven economy.

Corruption, pervasive in the BRICs, represents a serious social and economic problem and also plays a major role in workplace employee relations. May and Ledgerwood (2007), for example, highlighted the high incidence of *blat* in Russian companies—that is, the use of private contacts with influential individuals to circumvent formal rules and procedures and obtain a personal advantage. A similar phenomenon has been discussed in China under the rubric of *guanxi* (Bian 1997), although this is not seen in an entirely negative light given its positive networking effects (Wong 2010; Wang 2001; Kiefer 1998). Informal arrangements and networks can also influence compliance with regulations, how selection and career systems operate, as well as perceptions of the fairness of organizational practices on the part of employees. Table 1.1 sets out the corruption index for the BRIC countries compiled by Transparency International, based on surveys of experience with and the perception of corruption. The situation is especially dramatic in Russia, which ranks as one of the most corrupt countries on earth.

These shared features of the BRIC countries should not, however, obscure the enormous differences that exist between them as a result of their distinctive patterns of economic development, histories, cultural characteristics, political systems, and industrial relations arrangements. Differences in terms of the pattern and degree of economic development are evident from the figures for per capita GDP. Brazil and Russia, with around some US \$12,000 and US \$14,000 GDP per head respectively (c.US \$12,000 and US \$17,000 in 2012 at PPP, which eliminates the effect of differences in price levels),<sup>4</sup> have nominal incomes equivalent to around a third of typical Western European levels and are comparable with

**Table 1.1.** BRIC countries corruption ranking<sup>a</sup>

	Rank	Comparable countries
Brazil	69	Romania, Italy
China	80	Serbia, Tunisia
India	94	Greece, Senegal
Russia	133	Iran, Kenya

<sup>a</sup> 176 countries were included in the ranking.

Source: Transparency International Corruption Index (2012)

<sup>4</sup> Purchasing Power Parity as calculated by the International Monetary Fund. World Economic Outlook Database (<https://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>).

Central European countries such as Poland or Slovakia. In 2012, per capita GDP in China was some US \$6,000 (c.US \$9,000 at PPP). By contrast, in the same year per capita GDP in India was just US \$1,500 (US \$3,900 at PPP). As such, the development gap between India and Brazil or Russia is larger than that between the latter two and typical Western European levels.

In the context of our research, national differences are particularly important in the fields of vocational training, industrial relations, and behavioural differences that reflect cultural features. As far as systems of vocational training are concerned, a distinction is customarily drawn between (a) systems with developed arrangements for vocational training and education (VET) that include a link between theory and workplace practice and (b) systems with purely school-based VET and minimal practical training in real workplaces. Of the BRICs, only Brazil can be said to have an effective vocational training system that operates in line with modern standards (Leite et al. 2009), although China and India are making considerable efforts to reform their training systems (ILO 2003; Barabasch et al. 2009; Yan Hao 2012).

The BRICs can also be assigned to different categories in terms of their industrial relations arrangements. Although Brazil and India recognize freedom of association, and hence the right to form trade unions, unions have very few statutory rights at workplace level and industrial relations are often adversarial (Dombois and Pries 1999; Gupta and Sett 2000). This contrasts with China and Russia, where there is an emphasis on social partnership and where trade unions have extensive workplace rights but are subject to state control, exercised directly in China and indirectly in Russia (Taylor et al. 2003; Clarke and Pringle 2009). Comparing countries in terms of the degree of union pluralism, China has only one national union confederation, in contrast to the inter-union competition by organizations with differing political affiliations seen in Brazil, India, and Russia. The frequently used typology of centralized and decentralized industrial relations arrangements cannot really be applied to the BRICs. With some exceptions, industrial relations in all four countries are largely decentralized, with the workplace the central arena of industrial relations. All four countries have branch-based trade unions, but these only play a major role in Brazil. In the other countries, the dominant form of unionism is the enterprise or workplace union.

Cultural issues play an important role in certain areas of our analysis. All the BRICs rate as more collectivist and more hierarchical (that is, have a higher power distance) than the average, according to the main empirical comparative studies of national cultures (such as Hofstede, 1984; House et al. 2004). Within the BRICs themselves, and based on Hofstede's data, China is the most collectivist and India the least; China also has the highest acceptance of hierarchy (measured in terms of power distance) and Brazil the lowest. It would be reasonable to expect that high acceptance of hierarchy would lead to a greater acceptance of authoritarian leadership styles and a lack of scope for employee voice when compared with Western countries.

However, it is difficult to establish a bridge between such general characterizations of national cultures and workplace cultures. In the final analysis, workplace cultures are not a direct function of some general 'national character' but are also shaped by specific traditions (or the lack of such traditions) of industrial labour and the history of individual firms and plants.

## 1.3 THE CASE-STUDY COMPANIES

Our workplace case studies encompass the operations of two multinational companies, Volkswagen (VW) and Toyota, together with one local company from each of the BRIC countries: GAZ in Russia, Mahindra & Mahindra in India, and Geely in China. Since there is currently no local manufacturer in Brazil, our research there was confined to the two multinational firms.

Volkswagen and Toyota, with General Motors, are the three largest car manufacturers in the world. While Toyota continues to have the largest volume, Volkswagen is currently challenging this position—a situation that would have surprised branch specialists a few years ago. One factor contributing to the rise of Volkswagen has been its presence in the BRIC countries, and in particular in China.

Given the high level of public exposure of the two multinational companies, a detailed introduction seems superfluous. Toyota is an icon of the branch and its production system represents a model whose influence radiates out across the entire industry. It has generated a vast literature. While the first wave of research into the Toyota system focused on technical and organizational aspects (such as the classic studies by Shingo 1981; Monden 1993; and Ohno 1988), a second wave, which began in the early 2000s and was prompted by the introduction of the ‘Toyota Way’ in 2001 and the experience of Toyota’s North American transplants, paid much greater attention to aspects of Toyota’s personnel systems (see in particular Liker 2004; Liker and Meier 2007; Liker and Hoseus 2008). In contrast to the mainstream literature on the Toyota model, there is a smaller body of critical work that reflects the experiences of Toyota employees and highlights negative aspects of the Toyota Production System (Kamata 1983; Kato and Steven 1995; Ihara 2007).

VW has also generated a considerable research literature, often directed at the company’s unique governance arrangements and the structures and mechanisms for cooperation and reconciling interests between capital and labour that have grown up on the basis of these (see Baum-Ceisig and Osterloh 2011; Clark 2006; Haipeter 2000; Jürgens 1998). However, despite the company’s successes, VW’s ‘productive model’<sup>5</sup> has not enjoyed anything like the degree of international attention lavished on Toyota. In terms of our research field, these two companies exhibit both common features as well as marked differences. We focus on four here, beginning with their production systems.

Toyota is the origin and continuing paragon of the much-imitated Toyota Production System (TPS). The two main pillars of the ‘TPS house’, which underpin the design of all processes, are the just-in-time system (JIT), which seeks to eliminate buffers, and a commitment to ‘zero defects’ (*Jidoka*). Each of these principles embraces a large number of elements, such as flow production and the pull system in the case of JIT, and automatic equipment stopping and the Andon

<sup>5</sup> See Boyer and Freyssenet (2002) on this model; for a comparison with other production models, see also Freyssenet (1998). Boyer and Freyssenet note for the period 1974 to 1994: ‘(The) three firms Toyota, Honda, and Volkswagen were in fact the only ones to have a “break even point” that was constantly and significantly above their value added, whereas all other carmakers had experienced periods of non-profitability’ (Boyer and Freyssenet 2002: 389).

system in the case of zero defects. Since the TPS has been dealt with in considerable detail in the literature, we do not propose to go into any further depth here.

Since the early 2000s, Volkswagen has expressly modelled its production system, the Volkswagen Production System (VPS), on the TPS (Institut für Angewandte Arbeitswissenschaft, 2000), also introducing this into its operations outside Germany. New plants have been designed and planned around the system's requirements. According to the former VW management board member responsible for production and logistics, Hubert Walzl, the VPS has an 80 per cent overlap with the TPS (Walzl and Wildemann 2014: 66). The 'VPS house' is based on four principles: *Takt*, flow, pull, and perfection, with the latter including the 'zero defects' principle. The VPS was introduced as a standardized 'integrated production system' across the group in 2008. However, the fact that VW has drawn heavily on the TPS has not erased all differences between the production systems of the two companies. In particular, work organization at VW continues to be influenced by the company's traditions, such as a particular understanding of teamwork that, in line with the socio-technical systems approach, stresses the scope for self-organization. In the area of improvement activities, the preferred approach has been to make use of cross-functional workshops, drawing on shop floor actors and experts from supporting areas. In addition, Volkswagen places particular emphasis on its platform and module strategy (see Walzl and Wildemann 2014), which we do not propose to deal with in any greater detail here.

The second area is that of personnel systems, where it is the differences which predominate. Although both multinationals share a commitment to long-term and secure employment relationships, each has been shaped by differing cultural, regulatory and institutional contexts, industrial relations systems, and numerous other historically contingent influences as well as the distinctive strategies pursued, partly in response to these, by organizational actors. One upshot is the emergence of different patterns of regulation in their personnel systems, as the sections of this study dealing with employee development and pay differentiation will highlight (see Chapters 5 and 6).

Although we emphasize the underlying differences between the companies in the field of HRM, it is also important to acknowledge that each company's personnel systems have themselves been subject to considerable changes. For example, the Toyota HR system was comprehensively reformed in the 1990s in a context in which employment in industrial firms was not seen as an attractive proposition by school leavers and graduates. The reforms included abolishing the traditional pay system, introduced by Ohno, with its tight link to 'hard' productivity-based indicators (Shimizu 1994 and 1999), and the introduction of career paths based on competency appraisals with further training closely related to each stage of employee development as well as other measures.

At Volkswagen, the period from the mid 2000s saw an intensive phase of reforms to the company's HR system. Under the overall rubric of 'High Performance HR' (*Spitzenpersonalarbeit*), this involved the development of a wide spectrum of new approaches aimed at improving working conditions and raising motivation to boost performance. This went hand-in-hand with extensive standardization of these new instruments that also extended to the company's operations abroad. These included creating structured career paths within a new arrangement known as 'professional families' (*Berufsfamilien*), the introduction of appraisals for all employees, special selection processes for supervisors and

managers using assessment centres and further training offered in step with the individual employee's career development, provision for individual variable performance bonuses, and—not least—a strengthening of the decentralized presence and supportive role of the HR department in manufacturing and office areas. At the time of our research, most of the new measures had been rolled out in Germany but their introduction at the company's foreign operations was still being finalized. As a consequence, for the BRIC operations in our study this was an imminent prospect and one anticipated in some cases by locally developed instruments.

Concerning our third area of comparison, the differences between the Toyota Way and the Volkswagen Way, the TPS was complemented by the adoption of 'Toyota Way 2001', which specified a set of fundamental values and behaviours in which the TPS is embedded. The initiative for developing such a philosophy, and the further elaboration of the Toyota Way, was taken by Toyota's management in North America, and, as a consequence, is itself a product of the company's internationalization.<sup>6</sup>

The document stating the principles of the Toyota Way portrays it as a house, with a roof supported by two 'core pillars': 'Continuous Improvement' and 'Respect for People'. The importance of these principles for operations in the Toyota group worldwide and the essence of the Toyota Way were outlined in 2006 in an interview with the then president of the group, Hiroyuki Watanabe:

The Toyota Way has been and will continue to be the standard for everyone who works for Toyota all over the world. . . . To me, it's like the air that we breathe. The Toyota Way has two pillars: continuous improvement and respect for people. Respect is necessary to work with people. By 'people' we mean employees, supply partners and customers. . . . We don't mean just the end customer; on the assembly line the person at the next workstation is also your customer. That leads to teamwork. If you adopt that principle, you'll also keep analysing what you do in order to see if you're doing things perfectly, so you're not troubling your customer. That nurtures your ability to identify problems, and if you closely observe things, it will lead to *kaizen*: continuous improvement. The root of the Toyota Way is to be dissatisfied with the status quo; you ask constantly, 'Why are we doing this?' People can apply these concepts throughout the world, not just in Japan. The question is how long it takes to train people to develop the Toyota mind-set. (Stewart and Raman 2008: 14)

Watanabe's reflective comments at the end of his portrayal of the system represent an important point of connection with our study, highlighting the aspiration to embed the principles of the Toyota Way as a corporate culture.

VW has also developed its own 'Way'. This denotes a comprehensive process of organizational development that was negotiated with the works council and enshrined in a set of company agreements on teamwork, continuous improvement, goal-setting—which embraces all levels of the company down to individual teams—as well as a framework agreement on the 'Volkswagen Way' as a whole. This stipulates that 'employees will not suffer any detriment through their participation in the Volkswagen Way, also in relation to their pay'. Any

<sup>6</sup> Developing the underlying document for this was a protracted and difficult process that took ten years. Even after this, there was not unanimity and, as Liker and Hoseus note (2008: 14), one participant stated 'we finally agreed to call it the Toyota Way 2001 to acknowledge there is not 100 percent agreement on what the Toyota Way is and it is always changing'.

local efficiencies achieved through applying the Volkswagen Way will 'primarily be invested in structural improvements to the working environment, projects to raise security of employment, measures to develop competencies and other forward-looking steps' (Volkswagen, *Supplementary Agreement to Workplace Agreement No. 6/06*, translated for this study).

VW and Toyota are evidently each pursuing quite different objectives with their respective 'Ways'. While it is characteristic of Volkswagen that its 'Way' will be negotiated with the works council, this arrangement also means that this regulatory approach is confined to the company's German operations.

In contrast to Toyota, Volkswagen does not have a documented set of fundamental values and behaviours that underpin the aspiration for a distinctive corporate culture. An attempt to develop a global company culture for the entire group, which was begun in 2001 and was intended to 'place the outlook of more than 300,000 employees worldwide on a common platform of values' (cited in Hofmann 2010: 99), to use the formulation of the then chair of the management board, was regarded by 2007 as having failed.

Although there is no overarching statement of corporate culture, there are a number of widely shared basic views and beliefs. These include the recognition that capital and labour have legitimately different interests within the company and that the everyday practice of codetermination represents an approach that allows these differences to be acknowledged while creating a foundation for cooperation on the basis of mutual trust. For management, this approach ensures that enduring solutions can be found, even to contentious issues, as the fact that the works council will have assented to them means they will also be widely accepted by the workforce. For employees, the system of codetermination generates confidence that these solutions are fair and that their interests will have been taken into account.

One further element in the VW culture is the concept of '*Fachlichkeit*'. This term denotes knowledge and skills that go beyond the requirements of the worker's immediate job and are related to the demands of the processes and technologies within the 'professional family' that groups together the roles in the employee's functional area. A professional family includes a number of occupations that, combined, have overall responsibility for an area of work. It is distinguished from other families by the specific requirements to which it is subject and the technologies used. In some respects, professional families correspond with traditional functional divisions (such as HR or marketing) or specific production areas (such as toolmaking). As such they constitute the framework for career development paths and workplace relationships in which managers also serve as teachers ('community of teachers and learners'). The recognition of employees that grows out of *Fachlichkeit* relates to wider traditions of the notion of occupation (in the sense of the German term '*Beruf*') and is not limited to the internal world of the company. It does not, therefore, create a unique tie to the company; in fact, acquisition of these skills raise the prospects of finding a job at another firm.

A comparison of the two companies suggests that while Toyota aspires to establish a closed system that aims to socialize the 'whole' person, such an approach would be inconceivable at VW. Volkswagen's company culture brings together a looser coupling of elements, including the promotion of *Fachlichkeit* in employees' areas of activity.



Fourthly, on the issue of the relationship between the company and trade unions, the two firms have very different approaches. In Japan, Toyota has an enterprise union with which the company works closely. According to Liker and Hoseus (2008: 384), the company's approach in other countries depends on how trade unions conduct themselves:

As long as the union operates within the Toyota Way, with mutual trust and respect and facilitates continuous improvement for the company's long-term prosperity, then it will be a positive situation for all the stakeholders. Problems will arise if the union interferes with the relationship of mutual trust between team members and management or if they put restrictions on flexible policies and practices that help the company adapt to business needs.

Although Toyota does not pursue a policy of union avoidance, it sees the role of the HR function as being 'the "police" of fairness, reducing the need for another third party to represent the interests of labor' (Liker and Hoseus 2008:387).

In Germany, Volkswagen has built up close relationships with the union-dominated works council on the basis of the statutory system of codetermination and views these institutions as a strength for the company that it seeks to export to its foreign operations (Baum-Ceisig and Osterloh 2013; Haipeter 2000).

Given Volkswagen's embeddedness in German institutions, the company's operations abroad are confronted with the issue of the extent to which its HR and production systems, and the underlying company culture, can be implemented in environments in which comparable institutions are absent. Edwards (2004) argues that it is precisely such embeddedness in a dense network of institutions that can seriously impede transferring practices. In this respect, Toyota's approach would appear more straightforward. However, a great deal of time is also required for the gradual and step-by-step socialization of employees into the Toyota culture that is such a notable feature of the company.

Given that the following chapters will provide a more detailed presentation of the two company's practices, this short overview will suffice as an introduction. In addition to the two multinational companies, our study also included indigenous manufacturers in Russia, India, and China, about which much less is known. These short portraits outline the background of these manufacturers.

In Russia, we looked at the oldest national manufacturer GAZ (Gorkovsky Avtomobilny Zavod), established in 1932 and located in Nizhny Novgorod. The company mainly produces commercial vehicles, but also assembles some passenger cars (Siegelbaum 2008). It was hit hard by the collapse of the Russian car market in the 1990s, with production slumping from some 370,000 vehicles in 1990 to 200,000 by the late 1990s. In 2000, GAZ was bought by the oligarch Oleg Deripaska and integrated into a new group, GAZ Holding, which owns a number of plants for manufacturing commercial vehicles, buses, engines, and components as well as the GAZ car plant in Nizhny Novgorod. However, the new owner was also unable to stem the drop in production and employment. By 2010, GAZ's workforce was down to 24,000, compared with its previous 100,000. Since the company lacked the capacity to develop competitive cars independently, it embarked on a strategy of contract manufacturing, buying production equipment from Chrysler and assembling Chrysler vehicles on licence. When GM contemplated selling its German subsidiary Opel at the most acute stage of the economic

crisis in 2010, there were ambitious hopes of buying Opel in consort with Magna International, the Canadian-Austrian automotive supplier. When this plan foundered, GAZ agreed contracts to produce vehicles on licence for VW, Skoda, and General Motors.

In India, we conducted research at Mahindra & Mahindra, established in 1945 and now one of India's largest family conglomerates and a multinational company itself, with around 150,000 employees worldwide. The automotive division includes the production of cars, commercial vehicles, parts, and production equipment. Mahindra & Mahindra has six car plants in India together with CKD facilities in Egypt and Brazil. As with GAZ, the company has also pursued a contract manufacturing strategy. In 1995, it entered into a joint venture with Ford that was terminated in 2005 as sales failed to match expectations. In 2005, Mahindra & Mahindra began a joint venture with Renault that was also terminated after only a short while. Since the early 2000s, the company has accelerated the development of its own products and has acquired both the Korean manufacturer Ssangyong and Reva, an Indian manufacturer of electric cars. The successful launch of its own SUV in 2002 marked a major step forward for the company.

In China, our research was conducted at Geely (formally, Zhejiang Geely Holding Group Co., Ltd). Originally established in 1986 to manufacture refrigerators, Geely is now a conglomerate with automotive and education divisions, and subsidiaries in commerce, tourism, and hotels. The automotive division encompasses distribution and aftermarket services, component suppliers, eight assembly plants in China (together with CKD assembly of Geely vehicles by licensees in Russia, Ukraine, Indonesia, Sri Lanka, and Malaysia), and a research and development division. In 2009, the automotive division had 13,000 employees. The company is entirely privately owned, an exception to the traditional state-dominated corporate governance model in the Chinese car industry. However, the state is a significant stakeholder. Geely has enjoyed the support of the Zhejiang provincial government, where it was founded, ever since its establishment. This has taken the form of support for obtaining necessary licences, low cost provision of land, tax subsidies, and lobbying (Anderson 2012). Geely's first vehicles were based on Daihatsu models (Wang 2008). Since 2009, the company has aimed to shed the image of a low-cost producer and has launched two independently developed models—a small car and a mid-size saloon (Li and Xie 2010). In 2010, Geely bought Volvo to gain access to more demanding segments of the market through transferring technology. The company also now owns the firm that manufactures the traditional London taxi.

The manufacturers in this study represent a contrasting range of firms. While Volkswagen and Toyota are very large-scale multinational producers, GAZ, Mahindra & Mahindra, and Geely are indigenous manufacturers with fairly low volumes and barely any presence on the world market—although Mahindra and Geely are engaged in efforts to internationalize themselves, primarily through sales operations but also with some manufacturing affiliates.

As multinational manufacturers, both Volkswagen and Toyota have long histories of internationalization but with a particularly rapid expansion of their global presence during the 2000s. For example, the share of employment outside Germany at the Volkswagen group grew from 48 to 54 per cent between 2002 and 2012; 16 per cent of group employment (and 30 per cent of all employment

**Table 1.2.** Production and employment in case-study companies (2012)

Company	Production (2012)	Employment (2012)
Toyota Group	9,909,000	325,900
Volkswagen Group	9,255,000	550,000
Geely	491,000	18,500
Mahindra & Mahindra	483,000	17,800
GAZ	90,000	7,300 (2010)

*Note:* The Volkswagen Group includes VW, Audi, Skoda, SEAT, and several other marques. The Toyota Group includes Toyota and Lexus, plus Daihatsu and Hino Motors. Only data for the automotive division is included for Mahindra & Mahindra. At GAZ, figures are for light commercial vehicles, excluding trucks. Employment figures do not include temporary agency employees.  
*Sources:* Company data, annual reports

outside Germany) was accounted for by the BRICs alone (Volkswagen 2006, 2013). In the case of the Toyota Motor Corporation (and excluding Daihatsu and Hino), the proportion of foreign employment rose from 65 per cent in 2007 to 71 per cent in 2012. The BRICs' share of total employment was 20 per cent in 2012 (corresponding to 28 per cent of foreign employment) (Toyota, 2007, 2012). In the case of the three indigenous manufacturers, annual output in 2012 was just under 500,000 units at Geely and Mahindra & Mahindra, and 90,000 units (cars only) at GAZ. Table 1.2 sets out figures for production and employment at all the companies in the present study.

#### 1.4 THE PLANTS

Table 1.3 provides an overview of the plants included in the study for all the companies researched.

There are major differences between the plants:

- Different production histories, with both long-standing and very recently established operations. For example, both of Volkswagen's operations in Brazil (Anchieta and Taubaté) are fairly old, as are VW's two Chinese plants (Shanghai and Changchun), with the GAZ plant at Nizhny Novgorod the most senior of all; on the other hand, some of the plants have only been established since 2000.
- Different ownership structures. In some cases, the assembly plants are not wholly owned subsidiaries of the manufacturers but joint ventures with local partners. For example, in China Volkswagen operates joint ventures with two state-owned enterprises, SAIC and FAW. The Toyota operation in China we researched is also in the form of a joint venture with FAW. In all these joint ventures, the Chinese partner occupies some positions on the executive board and is able to exercise particular influence over HRM. The Toyota operation in India is a joint venture with Kirloskar, although the Indian partner only owns a 10 per cent stake and does not exert any operational influence.
- Very diverse production programmes, with large facilities such as Shanghai, Changchun, or Anchieta, which encompass several plants, and smaller units,

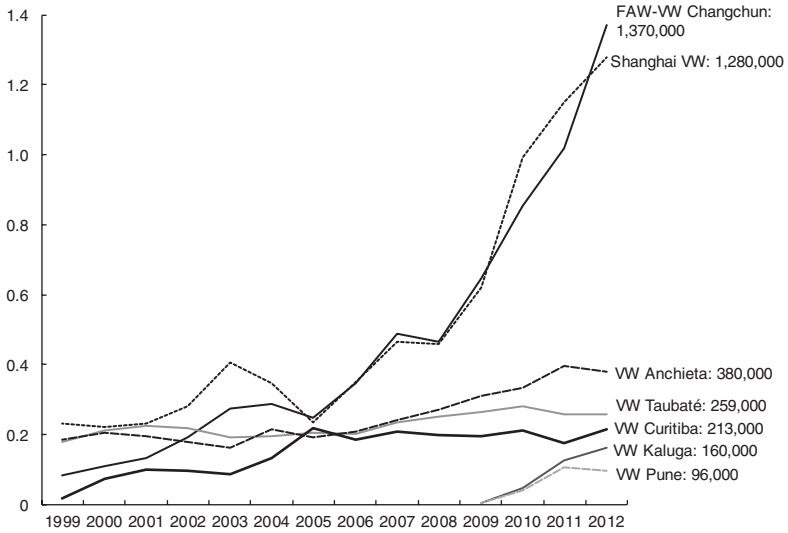
**Table 1.3.** Overview of case-study plants (2011)

	Opened	Production	Employment	Automation*	Models
<b>Brazil</b>					
VW Anchieta	1959	400,000	14,600	60% (Polo line)	Gol, Polo, Saveiro, Kombi, Parati
VW Taubaté	1976	250,000	4,600	45%	Gol, Voyage
VW Curitiba	1999	180,000	3,200	50%	Fox, Gol
Toyota Indaiatuba*	1998	60,000	2,000	25%	Corolla
<b>Russia</b>					
VW Kaluga	2007	125,000	5,600	20%	Tiguan, Polo, Octavia, Fabia
Toyota St. Petersburg*	2007	18,000	800	<5%	Camry
GAZ Nizhny Novgorod*	1932	53,000	6,600	20%	Gazelle, Woldai, heavy commercial vehicles
<b>India</b>					
VW Pune	2009	100,000	3,800	13%	Polo, Vento, Fabia
Toyota Bangalore	1999	80,000	5,200	n.a.	Corolla, Innova, Fortuna
M&M Chakan*	2009	50,000	2,000	12%	Maxximo Minitruck, heavy commercial vehicles
<b>China</b>					
Shanghai VW	1985	1,200,000	24,000	35% (Car Plant 3)	Touran, Polo, Passat, Octavia, Lavida, Fabia, Superb, Tiguan
FAW-VW Changchun	1991	1,000,000	18,500	25%	Jetta, Audi A4/A6, New Bora, Sagitar, Magotan, Audi Q5, Golf
FAW-Toyota Tianjin*	2002	400,000	13,000	60%	Crown, Reiz, New Corolla, RAV4
Geely Ningbo	2002	100,000	3,000	25%	Emgrand

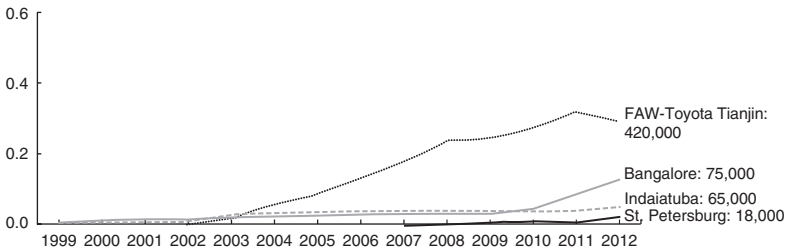
\* 2010. Data for VW Anchieta, Shanghai VW, and FAW-VW are for the entire facility, including several assembly and component plants and company headquarters. The level of automation is for body shops (principally welding). Unless stated otherwise, data is the average figure where several body construction lines are in operation.

such as Toyota St Petersburg. There are large variations in the complexity of the product programmes. Volkswagen's and Toyota's joint ventures in China and the new VW plants at Kaluga (Russia) and Pune (India) produce a very wide range of vehicles, which imposes particular demands both on work organization and employee skills. In contrast, Toyota's plants in Brazil and Russia, as well as the plants belonging to the indigenous manufacturers (Geely and GAZ), have much simpler product programmes.

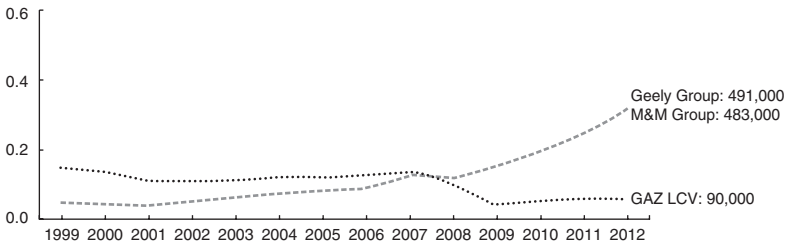
- Differing degrees of production automation. All the case-study plants are considerably less automated than plants in Europe and the United States. The level of body shop automation is especially low in India, where wage costs are also notably low. However, there are differences between the companies on this issue. Volkswagen tends to adopt a higher level of automation than Toyota—with the notable exception of FAW-Toyota in Tianjin—and the local BRIC manufacturers. Automation also has impacts on HR systems, primarily in terms of skills and training requirements. Intensive automation is one of the factors that has led to VW placing considerable emphasis on the



**Figure 1.3** Production in case-study VW plants in the BRICs, in million vehicles, 1999–2012  
 Source: Figure created by authors based on data provided by Volkswagen



**Figure 1.4** Production in case-study Toyota plants in the BRICs, in million vehicles, 1999–2012  
 Source: Figure created by authors based on data provided by Toyota



**Figure 1.5** Home country output at GAZ, Geely, and Mahindra & Mahindra, in million vehicles, 1999–2012  
 Source: Figure created by authors based on data provided by the companies