The London School of Economics and Political Science

Control Dynamics in a Chinese-German Joint Venture

Narisa Tianjing Dai

A thesis submitted to the Department of Accounting of the London School of Economics for the degree of Doctor of Philosophy, London, October 2010

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

Narisa Tianjing Dai

Abstract

This study is concerned with the dynamic control changes within a joint venture company between First Automobile Work (FAW) and Volkswagen (VW) over a period of 17 years. Concepts from New Institutionalism and the governmentality literature are used to shed light on how the controls were designed, shaped, and transformed at FAW-VW and how the tensions and conflicts between the two partners evolved and developed.

Since 1991 when the joint venture was created, a significant transition in the control focus from cost to quality took place. I examine this transition in the context of wider social and institutional changes. Concepts from the governmentality framework are drawn upon to investigate the linkages and relays among rationales, discourses, national programmes, diverse bodies of expertise, and the transition in the control focus within the joint venture under study, and the calculative and non-calculative technologies through which the various interpretations tied to the local programme were rendered operable. Various attempts by the FAW partner to transform employees and workers who came from a socialist legacy into responsible/governable individuals in a neoliberal sense through several modern and scientific management techniques are examined in conjunction with changes in ideological values permeating Chinese society. The effects of control techniques reflective of different forces and roots at FAW-VW are analysed.

Concepts from the new institutionalism framework are drawn upon to investigate the interactions and conflicts between managers and employees from each partner at the firm level. In this process, the political usage of particular rationalities by various parties within and without the firm is examined and the institutional pressures faced by each partner are explored. Attention is directed on the manner in which political rationalities are used strategically by both partners in their attempt to effect control.

Acknowledgements

This thesis could not be possible without the encouragement, help and guidance of several people who are gratefully acknowledged here. First and foremost, I would like to express my deepest gratitude to my lead doctoral supervisor, Alnoor Bhimani, for his indispensible input, encouragement and patience. Over the years, his resourceful guidance and valuable suggestions and criticisms have shaped the progress of every stage of this thesis. I would like to thank my second supervisor, Michael Power, for his invaluable comments and support. I am also heartily grateful to my colleagues at the Department of Accounting at the London School of Economics and Political Science, whose ideas and suggestions have greatly shaped my understanding of the issues raised in my research investigation.

I am also extremely thankful to my mum and dad. I could not have accomplished this without your love, support and encouragement.

Content

List of Tables 9

List of Figures 10

Chapter 1 *11*

Control Within Joint Ventures

1 Introduction **11**

2 Literature review **14**

2.1 Research on strategic alliances 14
2.2 Research on management controls within joint ventures 20

3 Structure of thesis **28**

Chapter 2 *31*

Analysing the Control Dynamics at FAW-VW: A Theoretical Perspective

1 The establishment of FAW-VW **32**

2 Theoretical perspective **37**

2.1 The governmentality literature – three concepts 38
2.2 New institutionalism – an analytical rule 42

3 Research methodology and empirical materials **46**

4 Conclusion **52**

Chapter 3 *55*

From Quality Enhancement to Cost Containment: An Analysis of Forces of Change

1 Introduction **55**

2 In pursuit of quality **58**

2.1 A shared concern with the development of the automobile industry 61
2.2 The prioritisation of quality 66
2.3 Technologies to mobilise the pursuit of quality enhancement 73
2.3.1 Quality Audit 73
2.3.2 Enforcement of International Quality Systems (ISO9000 and VDA 6 Series) 78

3 Transition to cost oriented management **81**

3.1 Re - problematising the car industry in the face of new challenges 82
3.2 New focus of cost reduction 84
3.3 Cost reduction technologies 86
3.3.1 Cost reduction proposals 87
3.3.2 Localisation of parts 89

4 Conclusion and discussion **92**

Chapter 4 *96*

Symbol and Technical Rationality as Strategy: The Political Dynamics of Control at FAW-VW

1 Introduction **96**

2 New institutionalism: FAW-VW automobile **98**

3 Unveil the 'technical world' **104**

3.1 Demarcation between technical and institutional practices 105
3.2 Conflict I: 'Cost' and 'Quality' Argument 106
3.2.1 Localisation 106
3.2.2 Cost reduction proposals 108
3.3 Conflict II: 'Personnel Rotation' Argument 112

3.4 Conflict III: 'Two-Culture Interactions' 115

4 Conclusion and discussion 117

Chapter 5 *121*

Control and Accounting Mechanisms and Effects: Managing Employees at FAW-VW

1 Introduction **121**

2 A brief overview of the control shifts at FAW-VW **125**

3 Modes of governing **129**

3.1 Award system and career path 130
3.1.1 Quantified standards and track of performance 132
3.1.1.1 Under the 'Quality Improvement' programme *132*
3.1.1.2 The 'Cost Containment' programme *139*
3.1.2 Award system as a control technique 145
3.1.3 Career path as the centre of the promotion system 149
3.2 Reorganisation of business process 153

4 The mechanism by which calculative devices influence employees at FAW-VW **156**

4.1 Philosophy and culture 159
4.2 Guanxi 168

5 Conclusion and discussion **175**

Chapter 6 *181*

Control Mechanisms at FAW-VW: Dynamics and Action

1 Summary of research findings **182**

2 Methodological and theoretical reflections **190**

2.1 Reflections on triangulations of new institutionalism and the governmentality literature 190

2.2 Reflections on the transition from quality to cost 193
2.3 Reflections on research of joint ventures 194
3 Implications for future research **196**

Bibliography **199**

Appendices

1 List of interviewees **217**

2 Output of the Chinese Automobile Industries **219**

List of Tables

Table 1.1: Prior Research on Joint Ventures and Strategic Alliances...14
Table 1.2: Summary of Research on JV Control.....22
Table 2.1: Functional Breakdown of Interviews Carried Out.....49
Table 3.1: Categories of Defects.....74
Table 5.1: Monthly Quality Audit Information.....136
Table 5.2: Statistical Analysis of Quality Audit Information.....136

List of Figures

Figure 3.1: Finished Car Audit Process.....76
Figure 3.2: Illustration of Quality Audit Scores.....77
Figure 5.1: Quality Audit.....133
Figure 5.2: Trend in Quality Audit Scores.....137
Figure 5.3: Leadership Growth Trajectory.....151
Figure 5.4: Growth Trajectory from Workers to Leaders.....152
Figure 5.5: Quality Audit Process for Purchased Parts.....154
Figure 5.6: Quality Audit Scores Awarded for Jetta Production Line Workers.....165

Chapter 1 Control Within Joint Ventures

--In my view, the company culture is essential. The culture in joint ventures, in a way, combines both oriental and western cultures together, therefore it tends to be more positive and active. ... FAW-VW has designed its own culture, to make the best cars and to be the best joint venture in the eyes of Chinese employees. ... (An FAW manager in Finance Department)

--The advantage of VW employees is that they are very strict – they follow the processes step by step. While the advantage of FAW employees is that they are very flexible but they tend to be so clever that they take shortcuts. ... (An FAW employee in Management Department)

1 Introduction

Joint ventures as a particular form of strategic alliance have become more visible and more important over the last four decades around the globe (Child, et al. 2005; Contractor and Lorange 2002; Groot and Merchant 2000). They are defined as "business agreements whereby two or more owners create a separate entity" which can either be a partnership or a closely held corporation, or can issue corporate securities in its own right (Harrigan 1988: p.142). They occur

when two or more entities pool part of their resources within a common legal organization with specific strategic ambitions.

Strategic alliances (SA) and joint ventures (JV) in particular have been studied with many theoretical lenses including transaction cost economics (Buckley and Casson 1998; Chalos and O'Connor 2004; Dyer 1997; Van der Meer-Kooistra and Vosselman 2000; Williamson 1975), resource dependence perspective (Hamel 1991; Pfeffer and Slancik 1978; Teece, et al. 1997), game theory (Parkhe 1993), strategic management theory (Faulkner 1995; Geringer and Hebert 1991; Inkpen 1995) and organisational theories (Groot and Merchant 2000; Tomkins 2001; Vélez, et al. 2008). Prior research on joint ventures and strategic alliances can be segmented into the following two streams. The first one focuses on motivations for, and the nature of, the formation of the SA. In this stream of research, transaction costs, strategic considerations and learning and knowledge transfer are considered the main reasons for companies to decide to form strategic alliances (Dyer and Singh 1998; Harrigan 1988; Hennart 1988; Hennart 1991; Inkpen 1995). The second stream of research in this area takes the performance of the SA as its central concern. Factors that lead to the success of the SA, the nature of the instability of the SA, the issue of trust building between partners and the control mechanisms adopted within the SA have been analysed and closely examined (Das and Teng 2001; Dekker 2004; Hakansson and Lind 2007; Kamminga and Van der Meer-Kooistra 2007; Luo 2002; Vélez, et al. 2008; Van der Meer-Kooistra and Vosselman 2000; Vosselman and Van der Meer-Kooistra 2009).

These studies contribute to the literature by shedding light on why specific forms of SA are chosen and formed when compared with choices of market transaction or hierarchical integration, and how strategic alliances can survive and succeed with the appropriate design management control mechanisms. Economic models with statistical analysis have been developed to predict and

empirically test the relationships between contingency factors, appropriate forms of management controls and the performance of the SA. Little research on strategic alliances has been done from a management accounting perspective. That research that has been undertaken attempts to contribute to our understanding by providing universally applicable control models at an aggregate level (Chua and Mahama 2007). There is a void of in-depth sociological analysis of how controls in SA, and joint ventures in particular, evolve, developed and are implemented in practice. Little is known about the ways in which different actors and agencies, discourses, cultural attributes, and historical inheritance shape and transform the control elements and affect the ways in which individuals react to the controls imposed on them within international joint ventures. This thesis begins to attempt to address such a void.

This thesis has as its focal concern the development of an understanding of control dynamics within an international joint venture. It considers how specific control foci come into being; the internal and external forces that shape the nature of the control systems in existence; how such control systems become implemented through the day-to-day practices of employees; how the control mechanisms evolve over time in the face of the emergence of new events; how particular rationalities of control are played out by each partner to achieve specified strategic objects, and how employees reacted to the controls imposed on them. The intent is to explore the mix of organisational, institutional and wider historical forces at play underlying the shifting control dynamics of an international joint venture. The company under study is a Chinese-German automobile manufacturing joint venture between First Auto Work Group (FAW) and Volkswagen (VW) which was established in 1992. By investigating the shaping and evolution of the control dynamics at FAW-VW, this study takes the analysis beyond the traditional transaction cost perspective and the 'trust' or 'resource' based approach adopted by other scholars in the study of strategic alliances. It attempts to draw out a more sustained social and organisational

analysis of accounting by relying upon alternative conceptual forms of reference.

The rest of this chapter is organised as follows. The first section will provide a literature review of the research done in the area of strategic alliances and highlight the unanswered questions that this thesis attempts to address. The second section will elaborate on the research focus and research questions proposed in this thesis. This chapter will conclude with a plan of the thesis.

2 Literature review

In this section, different theoretical lenses adopted in the prior studies on strategic alliances and joint ventures are examined. The literature on the management controls within a joint venture, and specifically within Chinese joint ventures, is further discussed. Problems associated with the extant research on controls within joint ventures are elaborated and examined in detail.

2.1 Research on strategic alliances

There has been an increasing research interest in comprehending the nature of, and the challenges presented by, the design and managing of strategic alliances. Previous scholars have applied different theoretical lenses to study hybrid firms or alliances. Table 1.1 summarises the literature relating to joint ventures and strategic alliances and highlights the theoretical frameworks adopted by prior researchers and their research focus.

Table 1.1 Prior Research on Joint Ventures and Strategic Alliances

	Authors	Theoretical Framework	Research Focus

Joint ventures	Harrigan, 1988	Strategic management theory	Strategic considerations of JV
	Hennart, 1988, 1991	Transaction cost economics	Nature of JV
	Kogut, 1988	Transaction cost economics and strategic perspectives	Motivations for JV
	Geringer, 1991	Strategic management theory	Selection criteria for JV partners
	Kogut, 1991	Real option	Strategic considerations of JV
	Geringer & Hebert, 1991	-	Factors that affect the performance of JV
	Inkpen, 1995	Strategic management theory	Organisational learning
	Groot & Merchant, 2000	Organisational theory	Control framework for JV
	Contractor & Lorange,	Strategic and transaction cost perspective	Strategic considerations of JV

	2002		
	Chalos & O'Connor, 2004	Transaction cost economics	Determinants of control mechanisms
Strategic Alliances	Kamminga & Van der Meer-Kooistra, 2007	-	Control patterns of JV
	Williamson 1975	Transaction cost economics	Motivation of SA
	Pfeffer & Salancik, 1978	Resource based perspective	Relationship between resource dependency and control
	Hamel, 1991	Resource based perspective	Organisational learning
	Parkhe, 1993	Transaction cost economics and game theory	Nature of SA
	Faulkner, 1995	Strategic management theory	Strategic considerations of SA
	Dyer, 1997	Transaction cost economics	Motivation of SA

	Teece et al., 1997	Resource based perspective	Strategic considerations of SA
	Buckley & Casson, 1998	Transaction cost economics	Strategic considerations of SA
	Dyer & Singh, 1998	Transaction cost economics	Strategic considerations of SA
	Folta, 1998	Real option	Strategic considerations of SA
	Van der Meer-Kooistra & Vosselman, 2000	Transaction cost economics	Contingency factors of control patterns
	Das & Teng, 2001	Transaction cost economics	Trust and control
	Tomkins, 2001	Organizational theory	Relationship between trust and information
	Luo, 2002	Transaction cost economics	Trust building and contingency factors
	Folta & Miller, 2002	Real option	Strategic considerations of SA
	Dekker, 2004	Transaction cost economics and	Trust building

		organizational theory	
	Hakansson & Lind, 2007	-	Inter-organisational accounting techniques
	Vélez et al., 2008	Organisational theory	Trust and management control mechanisms
	Vosselman & Van der Meer-Kooistra, 2009	Transaction cost economics	Accounting for control and trust building

As shown in Table 1.1 above, the three main theoretical frameworks adopted to shed light on the special features of strategic alliances are: transaction cost economics (TCE), resource based perspective and strategic management theories. Within a transaction cost economics perspective, alliances are seen to exist to avoid the costs of market mechanisms where these costs are not high enough to justify vertical integration (Williamson 1985). Under this perspective, human behaviour is regarded as being inherently opportunistic. Thus organisational welfare will likely be sacrificed. Three specific situations are commonly highlighted in the literature: asset specificity, imperfect information and small numbers of transactions (Conner 1991). The risk of opportunism, which is enhanced by asset specificity, makes contracting a desirable safeguard for the interests of both partners. Alliances, framed by contracts, are seen as the entities which enable and guide the application of these contracts. Formalization is not the only control mechanism applied in alliances. Some scholars have attempted to characterize the interface between formal and informal control systems. The literature states that trust and formalization may

act as substitutes or complements (Das and Teng 2001; Dyer and Singh 1998; Poppo and Zenger 2002). The relationship between performance, risk, trust and control is also examined. Empirical data has suggested that formalization and trust have various effects on performance (Luo 2002). Trust, control and risk are divided into certain key dimensions and the relationship between dimensions of three factors is subsequently examined (Das and Teng 2001). In most of the transaction cost economics research, hypotheses are made and empirical data then statistically analyzed. Contextual and historical factors are usually neglected. The criticisms of transaction cost economics as being reductionist and functionalist, have been documented in the accounting literature (Chua and Mahama 2007).

Under the resource based view, firms compete based on their strategic assets (Hamel and Prahalad 1994). This line of research argues that each firm has its own specific set of resources, tangible and intangible including product and process technologies, organizational structures, know-how, patent, cultures, and so forth which are accumulated during its development (Demsetz 1988; Teece, et al. 1997; Wernerfelt 1984). The ambiguous relationship between performance and resources and the nature of intangible assets make it difficult, if not impossible, for competitors to imitate firms' competitive strategies or duplicate advantageous resources. Hence, sharing complementary resources between partners becomes the motive for the establishment of a joint venture. This perspective has been attacked due to the vague relationship between the success of firms and their resources. Moreover the firms' resources are generally analyzed in a static manner whereas the resources of firms and their values are changing continuously.

Strategic management theories maintain that strategic alliances are formed as a means of cooperative strategy to obtain market competence (Child, et al. 2005; Harrigan 1988; Inkpen 1998; Kogut 1988). Child et al., (2005) argues that

strategic alliances including joint ventures, collaborations and consortia are basically about organisational learning while other forms of cooperative organisational forms are primarily structured towards skill/capacity substitution (p. 7). Similarly, organizational learning and knowledge acquisition are considered as the motivation for firms to enter strategic alliances and guide their choices of partners (Geringer 1991; Inkpen 1995; Inkpen 1998). It is also argued that the instability of strategic alliances is associated with the shift in the balance of partners' bargaining powers when a partner enables sufficient knowledge transfer and eliminates partner dependency (Inkpen and Beamish 1997). This strand of research to some extent neglects the effects that other social and organisational factors, beyond learning and knowledge sharing, have on the formation and development of strategic alliances.

2.2 Research on management controls within joint ventures

The focal concern of this research is with the management controls adopted at FAW-VW over an extended period of 17 years. In the management accounting literature, management control is defined and categorised in many different ways (Langfield-Smith 1997; Macintosh 1994; Merchant and Van der Stede 2007; Otley 1994; Ouchi 1979; Ouchi 1980). Tannenbaum (1968) interprets control as the sum of interpersonal influence relations in an organization. Ouchi (1979, 1980) takes a simpler view of management control and considers it as the mechanisms through which an organization can be managed so that it moves towards its objectives. Three types of such mechanisms are suggested: market, bureaucratic and clan. Simons (1995) posits the notion of levers of control framework of management control systems in organisations. Four levers of control are identified: belief systems, boundary systems, diagnostic control systems, and interactive control systems. Moreover, management control systems are defined as 'the formal and informal-based routines and procedures

managers use to maintain or alter patterns in organisation activities' (Simons 1995, p. 5). Merchant and Van der Stede (2007) argue that management control includes all the devices/mechanisms managers use to ensure that the behaviour of employees is consistent with the organization's objectives and strategies (p. 5). Following such a definition, three types of controls are distinguished: action controls, results controls and people controls.

Overall, management controls in this context are conceived as all the mechanisms adopted to direct, shape and guide the behaviour and actions of the manager and others. This study takes a wider view of the concept of management control. The control mechanisms are not seen as fixed, static or mechanically implemented. Instead they are considered as proactive and subject to employees' interpretation and strategic manipulation. Such ever-changing control mechanisms are addressed as the dynamics of control or the control dynamics in this study.

How do specific control foci come into being in joint ventures? What are the internal and external forces that shape the control systems in joint ventures? How are such control systems implemented through the day-to-day practices of employees and how do the control mechanisms evolve over time as new events emerge? How are particular rationales of control played out by each partner to achieve specified strategic objects? How do employees react to the controls imposed upon them? By engaging in an investigation into the evolution and shaping of the control dynamics at FAW-VW, this study takes the analysis beyond the traditional transaction cost and the 'trust' or 'resource' based approach to strategic alliances and attempts to enrich the literature of the sociological analysis of accounting.

Although the last ten years have witnessed a growing interest in understanding the challenges of management and control issues in joint ventures, little

research has been done in this area from a management accounting perspective (Chua and Mahama 2007; Geringer and Hebert 1989; Groot and Merchant 2000). The following section provides a summary of the main studies in this area and highlights the problems associated with much of the prior extant research.

Geringer and Hebert (1989) reviewed and synthesised the principal research focusing on the control of international joint ventures (IJV). They concluded that three dimensions of control had been addressed: (1) the focus of control, i.e., the scope of activities over which parents exercised control; (2) the extent of control achieved by the parents; and (3) the mechanisms the parents used to exercise control. They summarised the findings of the antecedent research, as shown in the table below:

Table 1.2 Summary of Research on JV Control

Summary of Research on JV Control

Conception of Control	Authors	Type of JVs[1]	Measure of Performance	JV Control-Performance Relationship
Mechanisms	Tomlinson (1970)	LDC	Profitability	Indirect
	Friedman & Beguin (1971)	LDC	—	—
	Stopford & Wells (1972)	both	—	—
	Gullander (1976)	LDC	—	—
	Rafii (1978)	LDC	Cost efficiency	Direct
	Schaan (1983)	LDC	Perceptual measure of satisfaction	Contingent on fit among criteria of success, activities controlled and mechanisms
Extent	Franko (1971)	both	Instability (change in ownership structure)	Contingent on MNC[2] parent's strategy
	Dang (1977)	LDC	—	—
	Janger (1980)	both	Not provided	Supposed as contingent
	Killing (1983)	DC	Survival & perceptual measure of satisfaction	Dominant control associated with performance
	Beamish (1984)	LDC	Same as Killing (1983)	No solid evidence for Killing's (1983) hypothesis
	Geringer (1986)	DC	—	—
	Awadzi et al (1988)	DC	Composite index including financial, non-financial and industry-oriented measures	Non-significant relationship
Focus	Schaan (1983)	LDC	See above	See above
	Geringer (1986)	DC	—	—

[1]LDC refers to Less Developed Country; DC refers to Developed Country.
[2]MNC refers to multinational corporation.

(Source: Geringer and Hebert, 1989, p. 247)

Geringer and Hebert (1989) have inspired a number of studies (Geringer 1991; Groot and Merchant 2000; Mjoen and Tallman 1997; Yan and Gray 1994). This stream of research mainly adopts a transaction cost economics conceptual framework to investigate the relationship between the characteristics of transactions (such as bargaining power, commitment of the parent's strategic resources, etc.), and the control imposed on joint ventures and their performance. For example, Mjoen and Tallman (1997) conducted a questionnaire survey with 137 Norwegian IJVs, the results of which were statistically analysed to test the hypotheses concerning the correlation between transaction characteristics, control and performance. They concluded that the contribution one partner makes, the ways partners use to control the IJV, and the perceived performance, are all positively correlated. Although it attempts to elaborate on the factors that impact the controls imposed on IJVs, this research fails to capture the complexity of the linkages and relays formed between the complicated web of controls imposed on IJVs, the power plays between partners and the social environments in which the IJVs are embedded. Two more recent studies attempted to provide a more comprehensive framework to further interpret the relationship between contingency factors and controls imposed.

Groot and Merchant (2000) identified three dimensions of IJV controls: (1) control mechanisms which are characterised as action control, result control and personnel/cultural control; (2) control focus which consists of broad and narrow control; (3) control tightness which is distinguished as tight or loose control. The authors advance four explanatory factors which are suggested to be linked with joint venture design choices related to the foregoing three dimensions and propose that: (i) when IJV objectives are expressed in terms of financial returns, they will heavily rely on financially oriented results controls and when the partners have a broad set of objectives, control foci are broad; (ii) when IJV are established to diversify partners' product offerings, they will tend to use loose

controls; (iii) when trust between partners is low, controls will be relatively tight and control foci will be broad; (iv) when recent performance of IJV is high, looser controls and narrower control foci will be adopted.

Groot and Merchant (2000) provided a framework to explain how partners exert control over an IJV. It attempted to establish a causal relationship between control dimensions and certain explanatory factors. Certain problems can be identified within this framework. First, there is an underlying assumption embedded in the framework that IJV partners rationally decide and choose the type of control systems imposed on the IJV in concert, based on the four constraints faced by them. It overlooks the complexity of the power relationship between/among partners during the process of control system design. For example, if the objectives of one partner for setting up the IJV command a tight financially-oriented result control while those of another partner dictate a loose multi-foci control, how will the two partners settle their conflicts? What type of control will be eventually imposed on the IJV? Second, it assumes a simple correlation between the explanatory factors and the control dimensions. It does not explain how these attributes impact the control characteristics in combination. For example, if trust among partners is high while recent performance is poor, what forms of controls are going to be observed - loose or tight?

Following this line of work, Kamminga and Van der Meer-Kooistra (2007) proposed a more extensive theoretical model of joint venture control based on transaction cost economics and relational concepts, to explain how parents control joint ventures. They classified joint ventures from a management control perspective into three categories: joint venture with little control complexity, joint venture with medium control complexity and joint venture with high control complexity. For these three types of joint ventures, they identified three corresponding control patterns (content-based control pattern,

consultation-based control pattern, and context-based control pattern), based on both TCE characteristics (measurability, uncertainty and asset specificity) and relational characteristics (parental differences, information asymmetry, bargaining power, and trust) developed for these joint ventures.

This study elaborates on the relationships between management control patterns and TCE and relational characteristics, and supports the theoretical model by examining two exploratory case studies. However, there are some problems in terms of the conceptualisation and application of the theoretical model proposed in this paper. First, the model does not take into consideration any social or institutional factors which may have extensive influence on the management control practices within a joint venture. Second, in practice it would be difficult to decide whether a joint venture is one with a medium or high control complexity. The boundaries between these classifications are vague and difficult to define. Third, the linkages between the three control patterns and the firm types identified in the model are over-simplistic. For example, the study predicts that joint ventures with high control complexity will have a high level of uncertainty and information asymmetry which creates the risk of opportunistic behaviour. Parents then will try to create trust by focusing on providing good inputs and creating a good relationship. However, such assumptions that parents will be more trust worthy in a high risk context are hardly realistic. Further, although the study acknowledges that the joint venture controls are influenced by the interactions of different firm characteristics in concert, it does not examine in detail how these different firm characteristics interact and what influence such interactions would have on the control model.

There is growing interest in understanding the application of management accounting practices in the People's Republic of China, given the rapid and complex economic reforms the country is undergoing. Some writers have

commented on aspects of different management accounting systems deployed in Chinese organisations and have summarised academic research which contrasts Chinese and western practices (Bromwich and Wang 1991; Chow, et al. 2007; Scapens and Yan 1993). Firth (1996) studied the adoption of modern management accounting ideas from foreign companies by state-owned enterprises (SOE) using a survey approach. He compared the adoption of newer developed management control systems in Chinese state-owned enterprises with and without associations, with foreign partnered JVs, and concluded that Chinese enterprises having associations with foreign partnered JVs tend to adopt newer control mechanisms (e.g. activity based costing, detailed budgeting, sensitivity analysis) which are seen in western capitalist countries to a much greater extent than in China. It has been suggested that national cultures have a strong influence on the design and application of management controls in multi-national organisations (Chow, et al. 1999; Chow, et al. 1996; Chow, et al. 1994; Chow, et al. 1991).

O'Connor et al. (2004) examined the adoption of westernized management systems in state-owned enterprises. They discovered that the use of management control systems has increased in recent periods, and these can be separated into 5 groups – approval procedures, formal procedures, Total Quality Control procedures, budgets, and performance targets. Their survey and interviews show that the transition is due to institutional factors such as joint venture experiences and stock listings, etc. Chalos and O'Connor (2004) found in their study of the determinants of Chinese – US joint ventures that partner equity ownership influenced expatriate staffing but none of the other control systems, and that knowledge dependency and asset specific transaction costs were determinants of controls for both partners based on their survey results. O'Connor et. al (2006) developed a theoretical framework which explains the determination and evolution of Chinese state-owned enterprises organizational design and they discuss the influence of five determinants on organizational

design: liberalization forces (industry, export sales, joint venture experience, stock exchange listing) and political constraints. These previous studies illustrated some important facets of control systems in Chinese enterprises. Most of these studies are based on survey results that are analyzed statistically. Chow et al. (2007) used surveys to examine the application of accounting in China including activity-based costing, activity-based management, target costing, quality costing and decision making techniques, and highlight factors that facilitate and hinder the application of modern management accounting techniques.

To summarise, the conceptual perspectives of transaction cost economics, resource based perspectives and strategic management theories have been the most widely used in investigating strategic alliances. These approaches seek to explain the nature of strategic alliances, provide optimum designs of control mechanisms and prescribe actions to take in order to improve the performance, adopting positivistic methods. Much of this research either proposed economic models to simulate the game-theoretic reactions of partners or hypothesised the relationship among different contingency factors (including trust, risk, bargaining power, etc.), the types of controls implemented and the performance of strategic alliances. Statistical analysis of empirical data which is mostly obtained by surveys and data bases is then used to test the validity of such hypotheses. This research contributed to the understanding of the formation, and the different attributes, of strategic alliances. Research that has been conducted from a management control perspective was mostly aimed to develop a generalised and widely applicable model to integrate different factors that have an influence on the control mechanisms adopted within strategic alliances, and their effects (Kamminga and Van der Meer-Kooistra 2007; Van der Meer-Kooistra and Vosselman 2000). Such an approach elaborates on some important facets of control and its conditioning factors, but it does not illustrate the way in which control mechanisms are shaped by various agents and

agencies; how such mechanisms come to be reformed in the face of new events; how different elements of control mechanisms are implemented and used through day-to-day practices; or, what are the actual effects on employees of those control mechanisms. There is a void of a socially informed analysis of the development, implementation and effects of control mechanisms within international joint ventures.

International joint ventures have been one of the most frequent forms of foreign investment vehicles in China and are considered the most effective way for international firms to gain access to Chinese market. Research on controls within Chinese joint ventures is very recent (Chalos and O'Connor 2004). This research offers more empirical data on which to base conclusions, but it is still narrowly focused. Much of this research collects empirical data via field surveys which is then analysed statistically. It adopts a functionalist perspective and uses positivist research methods culminating in the prescription of potentially optimal action. There are no in-depth longitudinal case studies about how management controls have evolved, transformed and been implemented within international joint ventures in China, from a management accounting perspective. Prior research has not sought to examine the development, application and actual effects on employees of the control elements within the social and institutional context in which the joint venture companies are embedded. This thesis attempts to contribute to the literature by exploring the control dynamics within one Chinese international joint venture of long standing.

3 Structure of thesis

The remainder of the thesis is structured into five parts. In Chapter 2, a theoretical frame of reference is developed which draws upon both new

institutionalism and governmental literature in an attempt to address the research questions probed.

In Chapter 3, the transition from a quality oriented control mechanism to a cost oriented mechanism is identified at FAW-VW. Such a transition is examined in the context of historical events and discourses. It illustrates how discourses, national programmes and diverse bodies of expertise within and without the joint venture came together and influenced the shift in management control foci.

Chapter 4 adopts a conceptual approach which draws upon, but which moves beyond, new institutionalism to examine how control elements are used strategically and politically to exert more control over the joint venture company by both partners. The chapter discusses the institutional pressures faced by the two partners. It is argued that in the joint venture under study, institutional forces, whether implemented managerially or whether symbolically decoupled from daily operational activities, are not derived purely from outside forces, but are themselves produced within the joint venture and exerted to attain more control. Control elements including quality and cost, are used rationally and strategically to effect power and orchestrate control.

Chapter 5 investigates how a series of control mechanisms were deployed at FAW-VW in an attempt to align the actions of employees with the quality improvement or cost reduction objectives of the firm. It considers the actual effects such control mechanisms have on employees. Compared with actors studied in a neo-liberal setting, as documented in the literature, employees at FAW-VW are influenced by different cultural, institutional, social and political factors. It is contended that they are deeply influenced and institutionalised by a particular Chinese philosophy, the Doctrine of the Mean, and respond to formal and informal control in a particular way so that to some extent, formal control

systems are disconnected from actual practices and informal control has a stronger impact on the actions of employees at FAW-VW.

Chapter 6 concludes the thesis with a summary of the main findings and the contributions of this research.

Chapter 2 Analysing the Control Dynamics at FAW-VW: A Theoretical Perspective

This thesis is concerned with developing an understanding of control dynamics within a joint venture. The control mechanisms under study are not seen as fixed, static or being mechanically implemented. Instead they are considered as proactive and subject to employees' interpretation and strategic manipulation. This study centres on the way in which management controls evolve, transform, get implemented and operationalised in practice. It seeks to explain how control mechanisms are shaped by various social and institutional forces within and without the joint ventures, how control mechanisms are deployed rationally and strategically by the partners and the actual effects of controls on employees.

In the previous chapter, prior studies on the design and use of management control mechanisms within strategic alliances were examined. It is argued that much of the extant research is influenced by economic theory (Baiman, et al. 2001; Kamminga and Van der Meer-Kooistra 2007; Parkhe 1993; Williamson 1991) and contingency frameworks (Dekker 2004; Groot and Merchant 2000; Gulati, et al. 2000; Luo 2002), and guided by their concerns about the relationships among contracting risks, characteristics of transactions, and the optimal design of control mechanisms. These studies provide analytical insight and enable models and hypotheses to be developed and tested statistically. However, there is a void of in-depth sociological analysis of the complex practice of controls within international joint ventures (IJV). This research attempts to address this void by examining the development and implementation of the controls and their actual effects within a Chinese-German manufacturing joint venture, FAW-Volkswagen. A theoretical framework, inspired by the governmentality literature and new institutionalism,

is proposed and discussed in detail in this chapter. The first part of this chapter will prior to the empirical analysis in the following chapters, provide a brief history of the development of firm under study: FAW-VW, and the car manufacturing industry as a whole against the backdrop of China's extensive economic reform. The second section will highlight the theoretical frames of reference drawn upon. The chapter concludes with a discussion of the research methodology adopted which I consider as the most apposite in investigating the research questions raised.

1 The establishment of FAW-VW

After thirty years (1949-1978) of 'Maoist socialism development', characterised by the Soviet-model of a command economy with its over-emphasis on state and public ownership and accompanied by political movements and tremendous turmoil[1], China started a series of economic reforms which heralded an era of high economic growth and financial prosperity. During this process, the Chinese economy gradually evolved from a socialist centrally planned economy towards a market-based economy, which was referred to by the reform commander Deng Xiaoping, as 'socialism with Chinese characteristics'. The economic reform in China was by no means a coherent, smooth and systematic process but rather a pluralistic multi-staged transformation which was permeated with failed attempts, contradictory rationalities and disturbing turbulence (Gao 1996). Placed in the spotlight of the

[1] Since the establishment of the People's Republic of China (PRC) in 1949, the political rationality upheld by the Communist Party of China (CPC) was deeply influenced by Marxist-Leninist socialist theories. However, both the socialist command economic rationalities and Mao's attempt to fast forward from socialism to communism in the agricultural commune from 1958 to 1961 had failed to generate enough economic surplus to improve the living standards of its population in poverty. Although Chinese economic reform has been characterised as one within the socialist camp, the centralised plan economy is substituted by a market based economy adopting economic policies used in capitalist nations. Economic reform policies are chosen by CPC on the basis of their instrumental effectiveness instead of ideological reasons. (Don and Xi, 1990; Fan and Nolan, 1993; Shen, 2000)

overall revitalisation of national industries, the automobile industry since the initial stage of the economic reform, has undergone a series of reforms which aimed to modernise the whole industry in terms of technologies and management systems.

In 1978, the annual production of passenger cars countrywide was 5,000 units, while the large bulk of passenger cars to meet market demand were mainly imported. The initial strategy of the State Council for building a passenger car industry was to innovate the existing products by purchasing technology from prestige car manufacturers worldwide. The Ministry of Machinery Industry sent out invitations to several world renowned car manufacturers including Ford, GM, Toyota, Renault, VW, and Mercedes to enter into negotiations for the importation of technology. Except for Toyota, which was then negotiating a project with Taiwan, and Mercedes which rejected the possibility of technology transfer, other manufacturers showed their interest in the potential collaboration. In October 1978, the CEO of GM at that time, Thomas Murphy visited Shanghai, and for the first time introduced the concept of a 'joint venture', as well as its associated meaning for China[2]. After the meeting, this proposal for establishing joint ventures with technologically advanced foreign companies was filed and submitted in the briefings to the State Council. This aroused the interest of the Vice President of China at that time and then was reported to the leader of the communist party, the initiator and commander of China's economic reform, Deng Xiaoping, who then commented 'joint ventures are practicable'. Such concession of potential affiliations with 'foreign capital' and

[2] During the discussion of potential cooperation of the production of trucks and passenger cars, Thomas Murphy inquired 'why do you only talk about importing technology with us? Why not consider joint ventures?' At the time the word 'joint venture' had never been heard before so that no one from the Chinese negotiation team understood it. Thomas Murphy had one of his managers explaining the meaning, benefits and feasibility of joint ventures as well as introducing the prior joint venture experience of GM. Murphy commented 'simply speaking, a joint venture is like a marriage, two partners build a family together'. The idea of 'building families with foreign firms', on the one hand, sounded interesting and appealing to Chinese representatives, but on the other hand, was simply politically infeasible under the social and political background at that time.

'capitalist conglomerates' literally lifted the restraints of the socialist ideologies at that time. The idea of developing joint ventures with foreign partners then swiftly spread over the entire business society while the possibility of developing joint ventures was opened not only to the automobile companies but to all developing manufacturing industries[3].

In 1979, a team led by the Vice Minister of Machinery Industry visited GM in the United States to negotiate the possibility of establishing joint ventures between Chinese car producers with GM. Unexpectedly the decision making body of GM vetoed Murphy's proposal. The issue of developing joint ventures with advanced 'capitalist' car manufacturers was halted. Concurrently with the endeavour to establish collaboration with established car producers worldwide, the development of a national car industry was given great importance by leaders of the reform, government officers of related bureaucratic agencies, entrepreneurs and scholars. Starting from around the 1980s, the vitalisation of the national automobile industry was linked by various actors with the welfare of the population, with the rise of the machinery industry as well as economic growth overall. Numerous seminars and symposiums were held to discuss the exigency of the advancement of the automobile industry in which its intersections with other arenas were identified while the problems with the current car industry were identified.

In 1986 in the Fourth Plenary Session of the Sixth National People's Congress, the five year plan of the development of the national economy was set for the period from 1986 to 1990, in which the government outlined the agenda for developing the automobile industry as the pillar industry[4] of the whole

[3] The first joint venture was formed in China in 1980: Beijing Airline Food Co. LTD. The first joint venture in the car industry was established between American Motors Corporations and Beijing Automotive Industry Holding Corporation in 1986.

[4] The pillar industry is considered as the vanguard industry that constitutes a significant portion (usually over 5%) of a nation's GDP and is able to promote and guide the development of related industries.

economy. The next twenty years witnessed a substantial increase in the total output and product variety of the automobile industry. China grew from a country where there was one passenger car owned per two thousand people in the 1980s to being the third largest automobile producer and the second largest automobile consumer market in the world in 2009 with approximately one private car per fifty people. Most major international car manufacturers had established joint ventures with local manufacturers by 2004 including Volkswagen, General Motors, Toyota, Mercedes, BMW, Honda, Nissan, and Hyundai. The first joint venture that Volkswagen set up in China was with the Shanghai Automobile Workshop in 1985, the success of which laid the groundwork for the succeeding collaboration between Volkswagen and First Automobile Workshop[5].

The joint venture, which is the central concern of this thesis, FAW-VW, was officially founded on 6th February 1991 and is located in Changchun, the capital of Jilin Province in the northeast of China. In terms of the equity structure of the joint venture, FAW Group owns 60% of the equity and Volkswagen Group owns 40%, of which Volkswagen AG owns 20%, Audi AG owns 10% and Volkswagen Automobile (China) Investment Co., Ltd. owns 10%. It is China's first modern passenger sedan industrial base of considerable economic scale. To date, it has two modern manufacturing plants covering an area of over 1,820,000 square metres, and a product range of over 10 different models of cars including two brands, VW and Audi.

Beginning with the production of the first batch of Jetta in 1991, FAW-VW Automobile Co., Ltd. has grown from a company with RMB3.712 billion (£259.3 million) registered capital, to a major automotive enterprise with total

[5] FAW group is a state owned company until today.

assets of RMB27.6 billion (£1.93 billion). To date FAW-Volkswagen's cumulative taxes exceed RMB40 billion (£2.8 billion)[6].

Since the establishment of FAW-VW, it was regarded as vital for a fully fledged national car industry. The collaboration with advanced automobile manufacturers overseas in the form of joint ventures is seen as a way to satisfy the domestic demand for passenger cars, which skyrocketed as the economic reform and opening-up of the market economy broadened, as well as to achieve a smooth technology and knowledge transfer.

Decisions are made by the Board of Management (BOM) inside the Joint Venture. There are five members on the BOM, three from the Chinese partner and two from the German partner. All important decisions have to be agreed by all five BOM members. Each member is in charge of one area (several departments) and his opinion would carry the most weight in the decision making for that specific area. The five BOM members comprise the CEO (from FAW, in charge of shareholder interests, internal auditing, company administration, etc.), the CFO (from German VW, in charge of the Finance department, Control department, etc.), Human Resource Vice-president (from FAW partner, in charge of HR department, management department etc.), Technology Vice-president (from German partner, in charge of Planning Department, Product Management Department, and etc.), Sales Vice-president (from FAW partner, in charge of the Sales department). Any decisions made at FAW-VW need to be agreed by both FAW and VW managers in the same department.

[6] Company brochure

2 Theoretical perspective

This study's focus is on the control dynamics and their conditioning forces within a JV. How are control foci shift shaped and transformed by discourses, national programmes and diverse bodies of expertise within and without the joint venture? How are control elements used strategically and politically to effect power and impose control on the joint venture by each partner? How do employees react to the controls imposed on them? To address the above questions, a two-fold theoretical frame of reference is proposed.

To examine how various conditioning forces came to shape the control focus and enable its subsequent transformation within the joint venture company, the governmentality literature is drawn upon to study the linkages formed among rationales, discourses, national programmes, diverse bodies of expertise, and the transition in control focus within the joint venture under study (Foucault 1991a; Foucault 1991b; Miller and O'Leary 1994a; Miller and O'Leary 1994b). Concepts from the governmentality literature are adopted to illustrate how various forces within and without the joint venture become commingled to shape and transform the control elements at FAW-VW. The governmentality literature sheds light upon the manner in which the control foci at FAW-VW are linked to wider national programmes and discourses through a multiplicity of different actors and agencies, including politicians, government officers, entrepreneurs, scholars and engineers.

However, this framework focuses more on the national discourses and rationales at the macro-level. The actors depicted in governmentality literature tend to be submissive and passive. They react to the calculative devices in a predictable manner and contribute to the achievement of a desirable state of the authority in their pursuit of a better and more fulfilling self. The governmentality literature does not allow a more active role for the two partners

to play. In this way this research benefits from the new institutionalism literature. It allows an examination of the strategic uses of rationales and norms by the two sets of actors within the joint venture company. Therefore, new institutionalism is appealed to with the attempt to illustrate that control elements are used politically and rationally to vie for more extended control over the joint venture company.

2. 1 The governmentality literature – three concepts

To understand how control foci are shaped and transformed by discourses, national programmes and experts within and outside the joint venture company, certain concepts from the governmentality literature are drawn upon. The governmentality literature, although with a comparatively short history, consists of a group of fruitful and enlightening works, most of which attempt to elaborate the way in which socially legitimated authorities intervene and act upon people's lives (Foucault 1991a; Miller 1990; Miller 1991; Miller, et al. 2008; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and O'Leary 2007; Miller and Rose 1990; Miller and Rose 2008; Rose and Miller 1992). Three concepts in the context of accounting studies: problematisation, programme, and technology are introduced in the next section, followed by a discussion on how these concepts make it possible to understand how control elements evolved and transformed at FAW-VW.

The process of 'problematisation' is explained as

> *... what is decisive is the moment at which such problems come to be identified as intrinsic to a particular calculative regime, when these difficulties come to be endowed with a wider meaning and significance than that of their deployment in particular organizations, and when an alternative technology can be appealed to as resolving these difficulties in a manner*

congruent with their wider perceived significance. ... (Miller 1991: p.737).

The notion of 'programme' is also pivotal to the analysis of control dynamics of FAW-VW. Miller (1991) notes that:

> *... The term programmes refers to the more general objectives that particular issues such as investment appraisals decisions can come to be associated with. ... Whilst these programmatic statements and proposals are by their very nature often heterogeneous, at certain points in time a limited coherence can be discerned between them. ... These idealized schemas, for representing, analysing and seeking to rectify the problems associated with particular aspects of economics and social life can be called programmes. ...* (p. 738)

Further, the concept of 'technology' has a particular meaning in understanding the process of transformation of control elements at FAW-VW:

> *...We need to study the humble and mundane mechanisms by which authorities seek to instantiate government: techniques of notation; computation and calculation; procedures of examination and assessment; the invention of devices such as surveys and presentational forms such as tables; the standardisation of systems for training and the inculcation of habits, the inauguration of professional specialisms and vocabularies; building designs and architectural forms – the list is heterogeneous and in principle unlimited.* (Rose and Miller 1992: p. 183)

Applying the above concepts to explore the control dynamics in a particular joint venture is valuable. First, such a framework does not constrain our attention within the boundary of the factory. Neither is this a simple implementation of contingency theory. The 'context presupposing control mechanisms' theory is too simple to capture the complex and delicate nature of such a reality-creating process. Miller & O'Leary, (1994b) hold that '...there is no "outside" or "inside" to such attempts to create reality. There are simply

ways of problematising...' (Miller and O'Leary 1994b: p. 123). The governmentality literature allows the simple aspiration of a local car manufacturer to become the best joint venture at a micro level, to be connected to the national discourses at the macro level. The examination of the connections between national rationales and the control elements within FAW-VW illustrates how various forces came together to enable the transformations of control foci within FAW-VW.

Second, by examining the linkages formed between a national scheme of economic development in the car industry and local control foci in the joint venture, the governmentality framework helps to elaborate why and how certain arrangements of the VW partner, which were acceptable to and welcomed by the FAW partner at one point in time, gave rise to increased tensions and became the point of departure for the two partners. This suggests the temporary agreement and peaceful cooperation between the two partners was only remotely evident from a sense of strategic consideration. Instead, such a vulnerable and temporary balance of power between the two partners is more likely to be associated with certain mechanisms and technologies of one partner (VW's high quality control mechanisms) according with the programmes of another partner (FAW's programme of building a modernised factory with internal competitiveness). Once the programme of FAW evolved, or was invested with new meaning, particular control mechanisms appeared to be incongruent with the new agenda of FAW. In such a case, different programmes are adopted by each partner, as are a different set of techniques. Tensions between the two partners were inextricably elevated.

Third, the governmentality framework helps to explain how heterogeneous mechanisms rendered different programmes of FAW-VW operable. It is through these calculative and non-calculative technologies that partners are able to institutionalise and normalise the conduct and aspirations of employees.

Through this process, it is imperative to examine how the 'mundane' techniques such as reports of quantified quality, or the quantified assessment of cost savings of individual employees, serve to transform employees into 'governable individuals'. The new programme (Cost reduction) superseding the old agenda of the FAW partner (High quality standards) does not mean that the old programme is completely removed from the joint venture. Shifting programmes up-held by the two partners can coexist at the firm level. Heterogeneous technologies are then adopted to alter employees' conduct and enable intervention. A high degree of struggling between employees from the two partners and senior management, as well as contradictory decisions, can ensue. The governmentality framework enables us to understand these conflicting actions and decisions.

Although the governmentality literature makes it possible to understand how control mechanisms are shaped and transformed, it does not examine how controls are deployed rationally and strategically by each partner. Actors depicted by the governmentality literature tend to be more submissive. The governmentality framework does not take into account the strategic and political actions and reactions of both partners of the joint venture company in their attempt to legitimise and exert more extended control over the joint venture company. New Institutionalism provides an analytical tool to investigate the political usage of control elements against the backdrop of the social and institutional contexts in which the joint venture company FAW-VW is embedded. Concepts from this literature shed light on the different institutional forces and norms that both partners appeal to, to justify their attempt to exert extended control.

In the next section I will examine the previous developments in the New Institutionalism literature and explain how this literature is helpful in the present research and the contributions it attempts to make to the literature.

2.2 New institutionalism – an analytical tool

New Institutionalism is a theoretical enterprise that has been widely applied, discussed and debated in the area of economics, politics and sociology over the past 25 years. New institutionalist research in these areas is not based on a single set of assumptions. In fact it is united by little more than 'atomistic accounts' of social processes and a common acknowledgement that social and institutional context matters (DiMaggio and Powell 1991a). New institutionalism, unlike previous theories about institutionalism, does not aim to describe the workings of institutions but attempts to explain the relationships between institutions and the actions of the actors involved.

Meyer and Rowan (1977) unpack the 'taken for granted' legitimacy of formal structures and argued that organisational structures are created and made more elaborate with the rise of institutionalised myths. In highly institutionalised contexts, organisations need to both support these myths and attend to practical demands, hence maintaining a loosely coupled[7] state suits organisations best to increase resources and survival capabilities. DiMaggio and Powell (1991b) attempt to explain why organisations look similar and identified three mechanisms of institutional isomorphic change: Coercive, Mimetic and Normative isomorphism. Though such distinctions may shed light on how the ceremonial models and myths arise, which is missing from Meyer and Rowan (1977), in real institutional contexts it is almost impossible to reduce the actual processes to any of these categories.

[7] Weick (1970) construe the concept of "loosely coupled" as, "By loosely coupling,the author intends to convey the image that coupled events are responsive, but that each event also preserves its own identity and some evidence of its physical or logical separateness." (p. 3)

Taking the neo-institutionalism approach, Covaleski and Dirsmith (1983; 1986; 1988a; 1988b) look into the use of budgets within the settings of hospitals and universities. They propose that budgets are not simply means for planning and controlling activities through a downward flow of information as traditionally viewed, but are used by middle management to legitimise the existence of the sub-units. They also find that the external imagery of acting rationally penetrated and influenced the internal operations in six hospitals (Covaleski and Dirsmith 1986).

Consistent with the argument that accounting is not only embedded in social relations but also constitutes the social reality (Burchell, et al. 1980; Hines 1988; Hopwood 1987; Hopwood and Miller 1994), Covaleski and Dirsmith (1988a; 1988b) show that by studying the budgeting process between university and state, accounting is more of a social invention complicit in the construction of a social reality, than a 'rational' reflection of a technical reality. Jepperson and Meyer (1991) demonstrate how modern actors are constructed through the process of institutionalisation, carrying their collective dependence continually with them, maintaining and reifying the modern order within formal organisations. Galaskiewicz (1991) takes institutionalism in another direction by presenting a case study which shows how actors can behave purposely under the umbrella of rationality to construct and create institutions which in turn control and govern organisations' actions.

Orru et al. (1991) attempt to measure the level of isomorphism within and across four countries in East Asia by analysing organisational forms. Their results point to the uniformity within firm relations in each country, and they develop several cultural, social, and political explanations. Brint and Karabel (1991) present a case study which shows how institutions are transformed in specific contexts by regarding organisational fields as arenas of power with some actors occupying more advantaged positions than others. Meyer et al.

(1992) develop an institutional model of organisations that are more embedded in institutional environments than technical ones, and they support their argument by explaining the structure of educational organisations. Meyer and Rowan (1992) analyse the educational system in the USA. They provide several currently fashionable frameworks to explain the lack of central control in educational organisations and conclude that the institutional framework provides a more legitimate basis for reasoning. Scott (1992a), by studying health care organisations in the 1980s, suggests that the adaptation of organisations to their environments occurs not only at the level of the individual organisation but also at the population level as some units thrive and multiply while other types shrink and expire. Scott (1992c) shows a process of rationalisation of reform and institutionalisation of new ideas in the actions dealing with ageing problems in the USA and argues that the rationalisation process could proceed at various levels, and developments at one level could be independent of others.

Scott and Meyer (1992) review the currently popular organisation-environment models and criticise these models for neglecting the larger system of relations with which organisations are concerned. They also propose several hypotheses concerning the effects of societal sector characteristics on the form of organisations. Scott (1992b), attempts to sketch an agenda to study the social and cultural environment of organisations, by stressing that the functions and forms of organisations are significantly affected not only by the technical, but also by the social and cultural environment in which they are embedded. He argues that it would be useful to identify network, cultural and historical elements, and to apply three distinct levels of analysis: the interorganisation field, societal and world-system contexts. Ingram (2001) examines the influence of organisations on institutional change in the USA hospitality industry and argues that new organisations in particular are an important source of institutional change. However, new institutionalism has been criticised for

assuming that institutions are stable, reductive, constrained and passive (Powell and DiMaggio 1991). Powell proposes several approaches to expand institutionalism for example, uncovering the varied ways in which institutional factors buttress or attenuate the competitive struggles among organisations, and showing that political and institutional forces set the very framework for the establishment of economic arrangements.

The foregoing review of new institutionalist studies suggests the usefulness of this perspective in addressing the control dynamics in the shaping of strategic alliances and for investigating control structures when two firms partner to create a new organisational entity. However, this strand of research only attends to the accounting in a single social context that is constituted by actors who have the same ethnic origin and who are subject to the same national culture. In international joint ventures where the partners are from different countries and are united by their strategic aspirations, there exist multi-institutional contexts to which different systems of symbolism and meanings are endowed. Therefore, two sets of social and institutional contexts are distinguished and examined within FAW-VW. New Institutionalism provides an analytical tool to understand the mechanisms through which institutional influences shape the behaviours of each partner.

Moreover, this study attempts to contribute to the literature of new institutionalism by illustrating how norms, rationalities and institutions are constructed purposely and internally within the joint venture company. It is argued that institutional forces, whether instrumentalised managerially or whether symbolically decoupled from daily operational activities, are not purely shaped by outside forces but are themselves produced within the joint venture and exerted to attain more control. Certain control practices are legitimised by managers as they appeal to technical rationalities and norms. As a result, the symbolic usage of institutions goes back and forth between the two

partners and serves the ultimate purpose of exerting and legitimising control. The application and deployment of certain control mechanisms are better portrayed as rational and strategic uses of economic rationalities to enable more extended control over the joint venture by each partner.

While the concepts from the governmentality literature are borrowed to analyse how control mechanisms are shaped and transformed by discourses, national programmes and expertise within and outside the joint venture company, new institutionalism makes it possible to understand how control mechanisms are deployed in practice and wielded to vie for control. The combination of these two approaches provides a comprehensive understanding of the evolution and deployment of control dynamics at FAW-VW combining both factors and forces within and without the joint venture company. In the next section, the research methodology and empirical materials collected for this study are examined.

3 Research methodology and empirical materials

The empirical materials used in this study comprise archival materials, miscellaneous internal documents, 264 issues of internal corporate newsletters from 1996-2006, in-depth interviews with 24 FAW-VW employees, and public information on FAW-VW as well as on related government regulation. This empirical material is carefully chosen to secure a rich understanding of how control mechanisms evolved, transformed and are implemented at FAW-VW. With regard to research questions probed in this study, a qualitative empiricism approach is adopted to gain a deeper understanding of the field under study. The emphasis is placed on the way in which control mechanisms are shaped and transformed by, and interrelates with, the social and institutional environments in which FAW-VW is embedded.

The triangulation of data[8] is deployed not to test presupposed hypotheses but to serve as an alternative to validation (Denzin and Lincoln 2005). It is understood that 'objective reality can never be captured' (Denzin and Lincoln 2005: p.5). Therefore, the different methods of data collection are carefully chosen as a 'strategy that adds rigor, breadth, complexity, richness and depth' to the field of study (Flick 2002: p.229). Triangulation is used to explore the conditioning forces of control mechanisms, display the strategic and political uses of control elements and facilitate an understanding of the actual effects of controls imposed on FAW-VW employees.

The empirical work for this research was carried out during 2007 and 2009. A two-month access to FAW-VW was negotiated from July to August 2007. During the stay at FAW-VW, internal documents and corporate newsletters were collected and 24 semi-structured in-depth interviews were conducted with both FAW and VW employees. Public information on FAW-VW was collected via published books, academic journals, newspapers, media and the internet. Government regulations for the automobile industry, policies on joint ventures with foreign partners, national five-year plans as well as speeches delivered by government agents from the 1970s to 2009, are also important components of the empirical data, which shed light upon the evolving national discourses and government policies (McKinlay 1998; Miller 1990; Miller and Rose 1988). Archival research of Chinese dynastic history was carried out to facilitate an understanding of the historical and institutional origins of certain management practices at FAW-VW (Hoskin and Macve 1986; Hoskin and Macve 1988). A detailed analysis of the different sources of data and the reason for choosing

8 Four different forms of triangulation are distinguished in the literature on qualitative research methodology: triangulation of data, investigator triangulation, triangulation of theories, and methodological triangulation (Denzin, 1978; Flick, 2008).

Triangulation of data is defined as 'combining data drawn from different sources and at different times in different sources and at different times in different places or from different people' (Flick, 2008, p. 328)

them is provided in the next section in accord with the sequence of analysis of the empirical data.

The collection of internal documents took place during the two-month period at FAW-VW from July to August 2007. The internal documents included short and long term plans for FAW-VW, product quality documents, flow-charts for key jobs in each department, incentive plans and job requirements, detailed descriptions of responsibilities for every department and important positions, and the code of conduct for employees. This empirical data was used to facilitate an understanding of the components of formal control systems that were put in place at FAW-VW. Moreover, 264 issues of the FAW-VW internal newsletter for employees from 1996 to 2006 were obtained. The newsletters are published in Chinese twice every month and circulated to all FAW employees. The materials published in these newsletters included news stories from different departments of the firm, inspiring stories of star employees, different projects being undertaken at FAW-VW, information on the market and competitors, as well as changes to the related government and industrial regulations. Such data enabled insights to be gained into different projects and control mechanisms deployed at FAW-VW as well as their historical transformations from 1996 to 2006. The newsletters for employees at FAW-VW over 17 years also allow the influence of discursive programmes on the firm, to be traced and analysed. Furthermore, informed by the governmentality literature, the empirical analysis of different firm projects was able to shed light on how certain programmes at the national and firm level were made operable within FAW-VW.

Public information was also collected, including the history of FAW-VW, national five-year plans, government industrial guidance, and related regulations for the automobile industries as well as for joint ventures with foreign partners. The data collection was carried out throughout 2007 to 2009

via published books, academic journals, newspapers, print media and the internet. Such information is critical to the understanding of the broader social and institutional environments in which FAW-VW is embedded. This public information was analysed subsequent to the analysis of the FAW-VW internal documents and corporate newsletters. Such an analysis provided insights into the changes of national discourses and government regulations, allowing the interpretation of the influences that actors and agencies external to FAW-VW, had on the transformation of control elements within FAW-VW. Informed by the governmentality literature, this information allowed an examination of the linkages and relays formed among discourses, various government agents and agencies, and the transition in the control foci in a local joint venture company.

There were 24 semi-structured interviews in total conducted with both FAW and VW employees in different departments during the two-month stay at FAW-VW from July to August 2007. The interviewees were carefully selected to ensure an exposure to different divisions of FAW-VW as well as to gain an insight into the overall control mechanisms implemented. Managers in each department chosen were approached first to obtain an overview of the control mechanism in place while the employees were then referred to to discuss how the control mechanisms are implemented through day-to-day practices and how they interpret and respond to the controls imposed. The interviews were conduced in Chinese with FAW employees and in English with VW employees. A breakdown of interviews conducted in terms of the background of employees is provided in Table 2.1 below.

Table 2.1: Functional Breakdown of Interviews Carried Out[9]

FAW Employees	

[9] For the duration of each interview, please refer to Appendix 1.

Control Department	2
Factory Plants	3
Finance Department	2
Management Department	1
Marketing Department	1
Planning Department	2
Product Department	2
Production Management Department	2
Purchasing Department	1
Quality Assurance Department	2
Sales Department	1
Total	**19**
VW Employees	
Factory Plants	2
Planning Department	1
Production Management	1
Managing Department	1
Total	**5**
Total number of interviews carried out	**24**

All interviews were semi-structured with open-ended questions. The open-ended questions included: 'What are the main responsibilities for your position? What does your job entail? How is your performance evaluated? Who are you accountable to? What are your opinions on (incentive systems, cost reduction projects...)?'. More specific questions were asked once detailed descriptions of the types of control mechanisms imposed on employees, were provided. For those interviewees who worked with partners from a different country (e.g. an

FAW employee who had a VW co-worker, or superior), questions which addressed the differences between them and their partners were included in the interview, such as: 'How well do you work with your (VW or FAW) colleagues? Are there any difficulties in communicating with them? What in your point of view are the differences between you and your (VW or FAW) employees?'. The semi-structured interviews were intended to gain an understanding of how control mechanisms were implemented in different divisions and how employees interpreted and reacted to the control mechanisms imposed on them. These interviews allowed insights to be gained about how control elements were used and implemented in practice and how employees reacted to the formal control mechanisms. New institutionalism is drawn on to inform the empirical analysis of the interview data to illustrate how the formation and implementation of control mechanisms is affected by institutional forces, and how different control elements are deployed by different partners strategically and rationally to effect power and exert more extended control over the joint venture company.

Archival research on Chinese dynastic histories and studies on Chinese ancient schools of thought as well as their implications for people's mentality and behaviour today, comprise the last part of the empirical materials collected for this study. The reason for selecting such information is to trace the historical and institutional origins of certain management practices within FAW-VW and to provide an understanding of the reactions of FAW employees to the control mechanisms imposed on them.

The triangulation of different sources of data enabled a 'simultaneous display of multiple, refracted realities' (Denzin and Lincoln 2005: p.6). Different materials from multiple levels are combined to capture the particularities and complexities of the field under study. Internal documents and interviews were complemented with public information and archival research to provide a

multi-layered understanding of the transformation, implementation and actual effects of the control dynamics at FAW-VW. The following chapters draw upon different sources of empirical data to address the research questions raised for this study. The data triangulation made it possible to trace the relationship between the control dynamics with FAW-VW and its conditioning forces within and without the joint venture company.

4 Conclusion

This chapter has sought to begin to develop a frame of reference to provide a deeper understanding of the development and implementation of the control dynamics at FAW-VW within the social and institutional context in which the joint venture company is embedded. It has been argued that the development and usages of different control elements within FAW-VW cannot be examined in isolation, without reference to the national discourses, government agents and agencies, various experts and institutional forces that appear to be external to the joint venture company. In order to gain insights into the ways in which control mechanisms evolved, transformed and were implemented and the actual effects of controls on employees within the JV under study, both the governmentality and new institutionalism literature are coupled in this investigation. Such a composite framework, it has been argued, is intended to allow insights to be gained, that may not be identifiable via a focus on either approach in isolation.

The governmentality literature which centres around the later work of Michel Foucault ((Burchell 1996; Foucault 1988; Foucault 1991a; Foucault 1997; Miller 1990; Miller 2004; Miller and Rose 1990; Rose 1992), was used to draw attention to the relays and linkages formed among discourses, national programmes, government agencies, expertise within and outside FAW-VW,

and the transition of control foci within the joint venture company. Adopting certain concepts from this literature (programme, problematisation and technology) allows an understanding to be obtained of how certain control mechanisms within FAW-VW emerged at one point in time and came to be transformed in the face of new events. Although the governmentality literature is insightful in this way, much of the research in this tradition tends to overlook the active and strategic roles actors are able to assume, as actors in this literature are generally depicted as passive and not consciously cognisant of wider forces of influence on their being. It is from this respect that new institutionalism is able to complement the findings of the governmentality perspective.

It has been observed that the behaviour of employees from FAW and VW are subject to the influence of different norms and institutions according to their different cultural origins, educational backgrounds, as well as work and life values. It was argued that new institutionalism allows an examination of two sets of social and institutional environments in which the two camps of employees at FAW-VW are embedded. Therefore, further analysis and interpretation of their strategic actions are made possible. Drawing on new institutionalism, this study seeks to demonstrate the way in which the actions of employees at FAW-VW are influenced and shaped by coercive, mimetic, and normative institutional forces and more importantly, how employees from both FAW and VW appealed to norms and institutions in a political and strategic manner in order to exert more extended control over the joint venture company.

Overall, it has been argued that the combination of the governmentality literature and new institutionalism sheds new light on the development and implementation of control dynamics within FAW-VW. The research methodology chosen for this study is considered pertinent in the context of research questions posed and the theoretical frame of reference proposed. It

provides different sources of empirical data to be analysed in the subsequent chapters to gain a deep understanding of the dynamic control mechanisms at FAW-VW. In the next chapter, the formation of a quality oriented control mechanism, and its subsequent transition to a cost oriented mechanism, is examined in relation to wider forces of change.

Chapter 3 From Quality Enhancement to Cost Containment: An Analysis of Forces of Change

1 Introduction

> *FAW-VW regards Product Quality as the Soul of the Company: FAW-VW has, in its seven years of life, always placed Quality in the central position of all its operation and made it the soul of product formation.* (FAW-VW Internal Newspaper, May 1998)

> *Cost is our first priority ...the situation has changed; now the real competition focuses on costs, unlike the past when high input might be able to bring out high output... Since last year our goal is to achieve continuous and significant cost reduction....* (An interview with the CEO of FAW-VW, Mr Qin published in People's Daily: 2004)

Accounting scholars have shown extensive interest in understanding the forces which influence accounting and control systems. Some scholars have considered political, social, institutional and historical forces in the shaping of accounting (Ahrens and Chapman 2007; Burchell, et al. 1985; Burchell, et al. 1980; Hopwood 1983; Hopwood 1987; Hoskin and Macve 1986; Hoskin and Macve 1988; Miller 1990; Miller 1991; Miller, et al. 2008; Miller and O'Leary 1987; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and O'Leary 2007; Miller and Power 1992; Miller and Rose 1990; Miller and Rose 2008; Rose and Miller 1992). Developing an understanding of the social conditioning of accounting control systems in joint ventures has not been investigated before. In this chapter I examine the emergence of a quality oriented control system and the subsequent transition to a cost containment focus in the context of external influences in one Chinese car manufacturing joint venture.

The joint venture under study, FAW-VW Automobile Co., Ltd. is a major passenger car production joint venture between FAW Group and Volkswagen Group. FAW Group owns 60% of the equity and Volkswagen Group owns 40%. The JV has two modern manufacturing plants and a product range of over 10 different models of cars including two brands: VW and Audi. The empirical data I draw upon in this chapter comes from four sources: first, 24 interviews were carried out with FAW-VW employees. Second, 264 issues were sourced of internal corporate newspaper for employees from 1996-2006. Third, miscellaneous internal documents were sourced, ranging from the definition of responsibilities for each department to quality standards for different parts of cars. Lastly, public information on the JV, academic publications, and government regulations in the related area were obtained from the national library, electronic database, press and media.

Since the start of the FAW-VW joint, quality had been given centre stage. Strategies were developed and techniques were adopted to improve product quality. The firm was involved in both national and international quality certification programmes. Daily quantitative reports [10] were produced, the results of which were summarised, integrated, and analysed statistically. Each decision in the process of product formation was made to conform to the central objective of improving and assuring product quality. Complicated and lengthy VW product tests processes, which exceeded the state standards regulated in China, were pursued to ensure high quality standards. Modernised management techniques such as 5S[11] management and KVP^2[12] were introduced to provide a

[10] For all components and final cars inspected, a quantitative score is awarded to illustrate the level of quality, see section 2.3.1.

[11] This management is based on 5 Japanese words which can be translated into Sort, Set in order, Shine, Standardise and Sustain. The system seeks to remove unnecessary items from the production line and workplace, maintain order and tidiness (making sure everything has a home), and to keep a clean workplace to ensure a workable and efficient production system.

[12] KVP is the initials of three German words which mean 'the process of constant improvement'. The square of KVP means an accelerating process of constant improvement. The KVP^2

platform for effective quality management. The old working practices were problematised and altered. A new spirit of dedication, responsibility and hard work was promoted by subjecting employees to quantitative evaluations of various forms. The FAW partner conformed to quality terms set by the VW partner from the start of the joint venture until 2002. However this quality centred mentality witnessed a sharp change in 2002.

From around 2002, a new meaning became attached to the idea of 'being competitive'. Cost rapidly and abruptly became a focal issue in the overall management system. Cost reduction became linked with the firm's sustainable development and future survival. It came to be conceived of as the 'primary force of competition'. Every employee was to take the agenda of cost reduction seriously. A large portion of the profits came to rely on the effectiveness of cost reduction. Hundreds of thousands [13] of proposals for cost reduction were received and adopted. The FAW partner began to replace parts originally imported from VW with parts produced locally in an attempt to save significant costs in materials supply. Lengthy inspection processes to approve the replacements arising from cost reduction proposals, or the localisation of parts supply, were no longer considered as a parade for high quality standards but as being 'counterproductive' with a need to be changed. Star employees who contributed to significant cost reduction were selected, publicised and rewarded on a monthly basis. The idea of cost control replacing quality maximisation infiltrated the lives of employees in FAW-VW. Tensions between the FAW partner and the VW partner grew under the new programme of FAW, as cost had not replaced quality in the regime of the VW partner.

---

programme is a group activity that was initiated in Germany in the 1980s and which targets the improvement of quality, service and product prices via the elimination of waste and the optimisation of working procedures.

[13] It was documented in the company newspaper (Oct, 2003) that one division of FAW-VW collected 17,629 Cost Reduction Proposals while in another case it was reported that one manufacturing plant, the Welding Shop, collected 2,400 proposals in one month (FAW-VW Internal Newspaper, May, 2003).

In this chapter, I attempt to explain the control focus applied in the joint venture, FAW-VW, in the light of wider discourses, government regulation, and the expertise of engineers and management within and outside the confines of the firm. The chapter is structured as follows: first, I provide a brief literature review and explain the theoretical framework and its usefulness in the analysis of my case study. Second, I explore the emergence of a quality oriented control mechanism in the early year of FAW-VW and extrapolate this from within the complex of linkages between control systems adopted and heterogeneous bodies of expertise. Third, I investigate the transition to a cost focused mechanism within FAW-VW and attempt to elaborate how such a transition was rendered imperative by various bodies and made operable by the technologies adopted within FAW-VW. I conclude by summarising the preliminary findings in this case and the limitations of the current chapter, as well as further work that needs to be done.

2 In pursuit of quality

To understand how concerns with quality within FAW-VW were given priority as a meaningful issue, attention first needs to be directed externally to the factory. Several steps are required to explain this. First, the development of the car industry as a whole was regarded as an essential element in the initial stage of Chinese economic development. The car industry was at that time beset with concerns about its lack of modernised management, lagging technologically, and concerns for its product quality and variety as expressed by a diverse and heterogeneous group of agents, such as politicians, economists, entrepreneurs, academics, engineers and so on. Thus, attempts to improve product quality and establish high standard quality management systems, were considered an imperative in an industry of key importance, but subject to significant

underdevelopment. In this context, national car industry development was endowed with a broader meaning, reflective of a temporary complex of linkages among discourses of economic development, concerns with product quality and the interplay of various agents and agencies engaged in the shaping of control mechanisms, and within a specific locale: the FAW-VW joint venture.

Second, the focus subsequently shifts to the linkages and relays formed between a local factory scheme 'becoming the best car joint venture in serving customers' (FAW Internal Newspaper, August 3rd, 1997, p. 1), and a series of national programmes with the aim of increasing the competitiveness of the car industry as a whole. It is important to understand not only the way in which 'building the best joint venture' was linked to concerns of competitiveness in the car industry as a whole, but also how 'being the best joint venture' became interpreted as 'having the best quality' products and services. Attention here is also directed to the manner in which the FAW partner became congruent with what were considered initially to be the excessively high quality standards deemed necessary by VW. The focus will be on the relation between the two locales in the sense that we try to understand how certain agendas of the FAW partner are linked to national aspirations of establishing a highly competitive and modernised car industry, rather than constraining attention at a particular macro or micro level.

Third, is a concern for two practices in the joint venture that illustrate how these mechanisms make operable, FAW's programme of 'becoming a modernised factory with high competitiveness'. One of these techniques was introduced by the VW partner, namely *Quality Audit*, which aims to collect product quality information, explores the nature of and reasons for defects, ascertains trends in quality change, follows the actions of defect removals, and eventually realises a constant quality improvement. The ultimate purpose of the *Quality Audit* is to examine and evaluate product quality from the standpoint of the most

demanding customers. The other practice refers to the attempts made by FAW-VW to conform with international (ISO 9000 and 9001) and German VDA 6 quality standards. The pursuit of high quality standards by FAW-VW was reinforced and also reassured by the implementation of a series of modernised management techniques, such as 5S, 6 sigma management, and KVP^2. These practices were articulated around the FAW partner's aim of 'becoming the best car manufacturer with high competitiveness' and making this agenda capable of implementation.

In this process, a new dedicated, responsible, customer-oriented and hardworking ethic was instrumentalised, replacing the old non-accountable, bureaucratic and inefficient process. Star employees chosen as examples of the entire work force in this period were typically iron men who worked long hours and prioritised work over everything else. Both quality inspection reports and *Quality Audit* reports were produced on a daily basis for each individual motor part and manufacturing processes. Individual workers could be traced and held responsible should any defects emerge. Quantified quality scores down to each job process and worker were produced, integrated, compared and analysed statistically. The trend of such quantitative performance was followed and workers were evaluated based on this information. During the daily *Quality Audit*, the virtual distance between employees and ultimate consumers was effaced as the car under audit was compared against standards of imaginary customers, and workers confronted directly by perceived customer expectations. Moreover, during the implementation of international quality standards, the working process for each division was redefined and the role of each post standardised, therefore providing a benchmark for which each employee was to be held responsible.

In short, following these three steps, one may gain an understanding of how the pursuit of excessively high quality standards at FAW-VW was made necessary:

the problematising of the car industry as a whole; embedding the idea of '*building car industry into the pillar industry*' within the aspiration of increasing international competitiveness of one local car manufacturing joint venture; and, imposing a product *quality audit* and international quality standards.

2.1 A shared concern with the development of the automobile industry

From around the mid-1980s, the schema for developing an internationally competitive Chinese car industry became a shared objective for various parties including government officers, leaders of existing car manufacturing companies, entrepreneurs in the related engineering industries, as well as economists and scholars in other areas. The development of the car industry was considered an essential contributor to the modernisation and industrialisation taking place in China, and more importantly to the overall development of 'a socialist market economy with Chinese characteristics' (Hu 1996). The concept was coherently discernible among a heterogeneous set of government reports, National Congress proposals for economic plans, schemes of business leaders in related industries, and scholarly publications from around 1985 onwards. The aspiration of developing the Chinese car industry formed a consistent point of reference for diverse interest parties and acted as an idealised design that sought to configure the economy in ways thought desirable. It became a programme of the governing group within the framework of governmentality. Such a programme of developing a Chinese car industry with international competitiveness was not always considered so desirable (Investment Research Institute of People's Bank of China. 1984; Li 1988; Zhang and Lu 1987). The notion came into being and came to be regarded as a programme only when various agents and agencies engaged were allied by a shared common interest (e.g. the benefits from a developed and internationally competent car industry)

and constantly referred to it as an idealised and desirable state. Such relays, though temporary and fragile as they may be, are indispensable for the mobilisation of certain notions such as 'economic growth' or 'the development of a national car industry' into programmes. In the following section, I will illustrate how the notion of 'developing an internationally advanced car manufacturing industry' became a consistent reference point for diverse actors and came to be considered as an idealised schema in their attempts to rectify particular economic problems.

Since the 1980s, the import volume of passenger cars increased greatly as domestic production was unable to satisfy the increasing demand for passenger cars due to the economic reform and liberalisation of markets from 1978 in China. These aroused the attention of various parties.

From 1982, a debate about whether to develop a national car manufacturing industry was ushered into the spotlight. The diverse bodies of expertise involved in this debate came from politicians, government officers, economists, entrepreneurs, commentators and academics in different areas (Chen 1994; Ji 1985; Li 1988; Liu 2003; Sina Auto. 2008; Wan 1995; Zhang and Lu 1987).

During this period, two distinctive opinions were voiced: one directed attention to environmental issues caused by heavy traffic, the underdeveloped infrastructure to accommodate cars, and the supply of petrol, and the natural resources required to satisfy the needs of car industry development and argued for a 'restrictive car industry development accompanied by proportional import' (Investment Research Institute of People's Bank of China. 1984; Li 1988; Sina Auto. 2008; Zhang and Lu 1987). Another perspective which favoured the development of a Chinese passenger car industry viewed it as an initiative that would put a stop to the outflow of foreign exchange, satisfy the domestic demand, stimulate the development of related industries, and provide jobs.

From 1984, the State Council organised a series of forums for leaders from different areas of the bureaucracy, entrepreneurs and scholars to discuss the issue of the development of the passenger car industry. These meetings highlighted that 'China does need to develop a passenger car industry of its own... Such a development has to start now...' (Investment Research Institute of People's Bank of China. 1984). Developing the car industry was considered to be contributive and essential to Chinese economic development (Liu 2003). In December 1985, when meeting with the chairman of the Chinese Automobile Association, the Chairman of the State, Mr Hu, pointed out that 'the age of private purchase of passenger cars will arrive eventually.... the development of the car industry should be listed in the "Seventh Five-Year Plan"...'[14] (Liu 2003; The State Council. 1985).

In 1986, in the proposal for the 'the Seventh National Economic and Social Development Five-Year Plan', the Central Committee of the CPC (Communist Party of China) stated clearly for the first time the objective to 'make car manufacturing industry the pillar industry in order to achieve *a greater development*' (Sina Auto. 2008; The State Council. 1985; The State Council. 1986; Wang 1986; Zheng and Shen 1991). The 'pillar industry' is defined as the vanguard industry which has a relatively fast growth pace and is able to guide and promote the development of the whole economy. It is purported to have a strong contagion effect in terms of inducing the rise of new industries and exerting a far-reaching and profound impact on economic development and the transformation of related industries.[15]

[14] The *Five-Year Plans* of China are a series of economic development initiatives submitted through plenary sessions of the Central Committee and national congresses. The plan sets out guidelines for economic and social development. A new round of planning starts every five years.

[15] http://baike.baidu.com/view/1024198.htm?fr=ala0#1.

As the automobile industry was denoted the 'pillar industry', the nexus was rendered more visible between its development, the rise of related industries and the success of the economic reform, while various actors were enlisted in the development project of the automobile industry. Developing the car industry was regarded as contributive and essential to other key industries and the economic development overall, by government officers, entrepreneurs, economists and diverse bodies of expertise. Wang (1986) stresses:

> *...[developing a car industry] reflects the requirements of modern economic development, creates a wide range of employment opportunities and has a far-reaching influence on the undergoing socialist modernization, the development of the transport industry, the progress of science and technology, social and economic benefits*...(p. 7)

The agenda of developing a national car industry was construed as an idealised scheme to direct the development of the overall economy in ways considered desirable. Moreover, the percentage of the output of the car industry in the overall productivity of the national economy comparing China and US, Japan and Europe, suggested the exigency and potential of the development of the national automobile industry (Zhang and Lu 1987). The significance of the car industry in the national economy of several developed countries was cross referenced to prioritise the development of the car industry in the state's national economic modernisation agenda. As Li (1988) points out:

> *...the international economic experience has shown that high-speed development period for a country's car industry is also the same time period during which its economy prospers. The United States in its 1920s, Europe in its 1950s and 1960s, Japan in its 1970s, as well as South Korea in its 1980s, had all gone through the very same process, while Italy made the sixth largest economy in the Western World due to its very own car manufacturing industry. Automobile industry should be given the primary position in the industrial structure in a modernized industrial society.* (p. 19)

The car industry was further considered closely related to the future growth of a series of other key industries, requiring the inputs of a significant amount of resources as well as converted products including steel, nonferrous metal, latex, paints, lumber, glass, asbestos, textiles, high power batteries, axletrees and other electronic products. Therefore its development was regarded as 'providing a market for the entire industry' and 'driving the development of lead metallurgy, machinery, chemical industry, light industry, construction industry, electronics and other related industries' (Wang 1986; Zhang and Lu 1987). It was argued that developing a car industry also rendered imperative public investment in road construction which would drive a further round of economic growth (Zheng and Shen 1991).

Relays and linkages were formed between the development of a car industry with the future of various related industries and the economic development of China as a whole. Various agents and agencies including different government bureaus, leaders in the car manufacturing companies, entrepreneurs within related industries and scholars who were concerned with the future of the state, were allied to believe unanimously that the agenda of 'developing a national car industry' is the perfect way for 'presenting, analysing and seeking to rectify' the inefficiencies associated with the nation's modernisation and marketisation process. Hence the notion of car industry development became a national programme, a consistent reference point for different parties to draw upon in their attempts to configure the relations within their own fields which were connected by the same concern and objective at this particular point in time. In the next section I will examine how the car industry was subsequently problematised by different parties, and how the idea of quality became attached to such a programme, which influences the control focus within one particular locale, FAW-VW.

2.2 The prioritisation of quality

With the prioritisation of building the car industry as the pillar industry, another round of debate started concerning the strategies and approaches to develop the car industry. Discussion forums were organised, government seminars were convened, and scholarly proposals were published. At this stage, the current development of the car industry was further complicated in the following three ways. First, in terms of production volume: the overall production of cars was 370,000 and 470,000 in 1986 and 1987 respectively[16]. 'The annual production volume of passenger cars in early 1980s was hardly the daily production of an advanced car manufacturer in developed country' (web page). It was argued that with such a production level, the car industry was well short of becoming the pillar industry. Second, in terms of the variety and technology of products: the few existing models of passenger cars in production were characterised as being behind the times and lacking advanced technology (Chen 1986; Chen 1988). Third, the car industry was problematised in terms of the management system in state-owned car manufacturing firms: state-owned manufacturers were criticised for being without a clear line between the functions of the government and enterprises (Li 1988), and of having no scientific management system or techniques. Fourth, the quality of the products was also a concern for various actors. The problematisation of quality was carried out both at a national level and at local firm level. It was argued that there existed a big gap between the overall quality of cars produced locally and those imported, in terms of safety, reliability, fuel consumption, comfort, and environment adaptability, while local car producers were criticised for lacking the expertise to ensure product quality. (Chen 1986; Chen 1988; Chen 1994; Li 1988; Lin 1993; Lu and Chen 1989; Sheng 1986; Wan 1995; Yuan 1995).

---

[16] http://tjsj.baidu.com/pages/jxyd/11/79/cbe73dcaef9e36f09da6284e07cec0c2_0.html

The solutions proposed concerning the above questions by experts included: to establish big and comprehensive enterprises with a high starting point in terms of high quality and advanced technology, to attract foreign capital in this area to realise technology transfer and improve product quality, to launch advantageous tax and tariff policies to encourage joint ventures and to conform with international quality standards, in the process of which management control systems can be transformed and industry's competitiveness will be improved (Conference 1994; Fu and Han 2000; Ji 1985; Liu 2003; Zang 1994; Zhang 1994; Zheng and Shen 1991)

These solutions were reconfirmed in the 'Automobile Industrial Policy' (1994) issued by the Chinese government:

> *The Automobile Industrial Policy is particularly made in order for the car industry to become the pillar industry of national economy as soon as possible, to change the current condition of small-scale and low-level products, to improve product quality and technological skills ...The state encourages automobile companies to establish research centres with foreign firms in the form of inter-firm cooperation and joint venture. ... The state encourages automobile companies to attract foreign capital to develop China's automobile industry.* (p. 1)

The issue of quality, one of the many aspects of which the Chinese car industry was considered problematic, was further rendered imperative as linkages and relays were formed and reinforced among the idea of quality, diverse agents and agencies, and government agendas within and without the car manufacturing industry. The concern with product quality in general dates to the start of the Chinese economic reform. It was listed as one of the 'fundamental guidelines and goals for economic development' in the CPC Central Committee's Proposal for the Seventh National Economic and Social Development Five-year Plan (The State Council. 1985):

> *...[we should] place in a central and prominent position the growth of economic efficiency, especially the improvement of product quality... the poor quality of production goods, high material consumption, and low economic efficiency has been a long-term issue for construction of China's socialist economy. ..., [we] have to bring the product quality and economic efficiency up to a new level. This is the fundamental way to accelerate China's modernization process* ... (p. 4)

The idea of quality was further linked to the international competitiveness of the Chinese economy and the success of its opening-up. In the same report, a 'quality first' principle was put forward for competing in the international market. Great improvement in product quality was regarded as exigent for increasing the international trade volume and revenue (The State Council. 1985). The relays among the concern with product quality, the export and the industrialisation of China were reinforced in CPC Central Committee's Proposal on the Eighth Five-Year Plan of National Economic and Social Development[17]. It was pointed out in the guideline section of the proposal submitted to the Thirteenth National People's Congress that:

> *The focus for the development of the machinery manufacturing industry is to improve product quality and technical standards.* (p. 10)

In the section regarding expanding the extent of opening-up to the international market ...

> *... On the premise of a continued steady development of export trade, the focus of our work should be on reforming the export structure and improving the quality of exports ... [we] should rely on improved product quality to drive the increase in foreign exchange earnings.* ... (p. 21)

From 1995 onwards, the linkage was further strengthened between the idea of quality and the development of the national car manufacturing industry. In

[17] The Eighth Five Year Plan is for the time period starting from 1990 to 1995.

December 1995, in the 'CPC Central Committee's Proposal for the Ninth Five-Year Plan of National Economic and Social Development',[18] two fundamental transformations were raised by President Jiang as 'the key to achieving the goal of the next fifteen years', being the metamorphosis from a 'planned economy system' to 'a socialist market economy system' and the transformation in 'economic growth mode from extensive to intensive' (The State Council. 1995). Quality was rendered imperative for two such fundamental transformations by a series of actors including government officials, entrepreneurs and scholars in various areas. In 1996, the Ministry of Machinery Industry,[19] after several rounds of internal meetings, national workshops and consultations with the State Council, decided that the entire industry should concentrate on improving product quality, optimising organisational structures and ameliorating development capacities (which were referred to as 'the three battles') during the period of the Ninth Five-Year Plan in order to facilitate the 'two fundamental transformations' (The Ministry of Machinery Industry. 1996). With regards to 'the development of the automobile industry during the period of the ninth five-year plan', the Ministry of Machinery Industry issued the 'The Quality Development Plan for the automobile industry' in which the issue of product quality was linked to, and regarded as indispensable to, the development of the automobile industry and the national economy as a whole:

> *... During the 'ninth five-year plan' period ... the automobile industry as the pillar industry of the national economy must achieve a rapid development with high product quality. The development of China's automobile industry is faced with fierce international competition and challenges. Quality has become the key determinant for a country or a company to survive in the international market ... Quality is an important strategic issue for the development of our national automotive industry ... The planning and implementing of the quality development will enable China's automobile industry to strengthen the domestic*

[18] The Ninth Five Year Plan covers the time period from 1996-2000.
[19] The ministry that is responsible for providing guidelines for, issue regulations on and direct the development of the automobile manufacturing industry.

> *market, and can gradually adapt to the needs of international market in the fierce competition.* ... (p. 2)

The issue of this plan for the development of production quality was accompanied by a number of government guidelines on how to better improve the quality, discussions of standards and process control of product quality by engineers and other experts, and the determinations expressed by managers in the car manufacturing companies to materialise the idea of high quality (Cao 1994; Chen 1995; Cheng 1996; Li 1994; The First Automobile Work Group. 1995; The Ministry of Machinery Industry. 1994; The public relation division of FAW. 1996; 1995a; 1995b; Yang 1995).

In an interview, the Minister of Machinery Industry at the time, Mr Guangyuan He stressed the importance of product quality to the development of automobile industry:

> *... We believe that the vitalisation of the machinery and the automobile industry should be done step by step. From now to the end of this century is the first stage for the revitalization during which period the intermediate focus will be on improving product quality.* ... (Cao 1994: p.6).

Korean experts, in a comparison between the development of the Korean and Chinese automobile industries, commented that:

> *...we believe that for the development of Chinese automobile industry, the most important is to ensure a stable quality on the basis of mass production* ... (Yang 1995: p.26)

Accompanied by the problematisation of the whole car manufacturing industry in terms of its product quality at the national level, the idea of quality was linked with the competitiveness of car manufacturing companies at the firm level. Within First Automobile Workshop, quality was made imperative to the future of the whole group:

> *... Product quality is the most critical element for establishing a good brand name. Only by upholding to a high product quality standard can FAW compete with international branded cars...* (Li 1994: p.13)

The complex of relays and linkages between discourses of economic development, the schemata for developing a national car manufacturing industry, the notion of quality, diverse expertise and various agents and agencies give rise to the local aspiration in one locale: FAW-VW and, more importantly, the meaning attached to such a programme.

FAW-VW was founded as one 'big and comprehensive' car producer and the very first to be established on the basis of economies of scale. The government provided great support to FAW-VW in its initial establishment period in terms of favourable tax conditions, direct investment to ensure water and power supply, and easy access to bank loans (FAW-VW Newspaper January 10th 1996). At this stage, the firm identified its strategy 'to be the best joint venture in China' (FAW-VW Newspaper August 3rd, 1997, p. 1), which was later constantly referred to by its employees, put on the home page of the firm and written in the training pamphlet of new employees. The strategy was linked to, and seen as contributing to, the realisation of a national objective of developing the car industry as a whole (FAW-VW Newspaper March, April, August, 1997). In the FAW-VW newspaper, a letter was addressed to all employees to 'Strive to build the best joint venture in China' to inspire the morale of its employees.

> *...we will work even harder to build the best joint venture in China in order to build for our country a modernized car manufacturing base and to make greater contribution to develop China's car industry...* (p. 1)

Such an aspiration, becoming 'the best joint venture in China', was expressed in the simplest language. It takes its meanings from national objectives, from

government policy and regulation, from scholars' and commentators' publications, and from managers' speeches. It is through these diverse and heterogeneous bodies of expertise, including the government agents and agencies, scholars, economists, and experts within and outside FAW-VW, that different meanings are attached to it in different time periods. Such meanings include what is meant by 'the best joint venture', what aspects in which to be 'the best', who are responsible, and what are the approaches required to realise such an aspiration. Until 2002, the interpretation accorded to 'the best' was that of 'the best quality'. Competitiveness was equal to better quality and 'improving quality' was regarded as the primary objective at FAW-VW.

In a speech entitled 'Quality is the Life of Enterprises' made in the workshop for firm leaders of FAW-VW, Mr Lu, the CEO of FAW-VW argued:

> *Quality is the life of our firm. To assure quality is the prime responsibility of our leaders ... To keep competitive, we have to develop the habit of quality improvement ... we need to set up a quality responsibility system, monitor and supervise quality...* (FAW-VW Newspaper, April 1997, p. 2)

At FAW-VW, the competitiveness was conceived as high quality.

> *...the competition between firms is similar to a war. The difference is that it is a war of quality. The only way to stand out is to improve quality...* (FAW-VW Newspaper, April 1997, p. 2)

Quality is not seen as a static notion. It is defined as dynamic – it needs to be continuously improved and everyone in the firm is responsible.

> *...Quality is not a singular or narrow concept. It needs to be constantly improved. It comes down to working quality of individual employee. ... Each employee should concern with our product quality and realise how to improve the quality of our work. Only in this way can the product quality be constantly enhanced....* (FAW-VW Newspaper, April 1997, p. 2)

2.3 Technologies to mobilise the pursuit of quality enhancement

Before the programme of quality enhancement started, the focal concern of FAW partners was with the production itself. When FAW-VW started its production in 1992, there were very few quality assurance procedures. In the process of 'continuous quality improvement', a number of modernised management accounting techniques were adopted at FAW-VW, out of which two main mechanisms can be identified, Quality Audit and the Enforcement of International Quality Standards. These two mechanisms together rendered operable, the notion of 'high quality' and 'continuous quality improvement'.

2.3.1 Quality Audit

Quality Audit is a systematic way of seeking quality inspection. It collects product quality condition information, identifies the conditions and reasons for defects, tracks the trend of quality parameters, follows actions to rectify defects, and eventually realises constant quality improvement (FAW Internal Document). The ultimate purpose of the Quality Audit is to examine and evaluate product quality from the standpoint of the most demanding customers. It makes the aspiration of high quality operable in the following two ways: through standardisation of quality and quality inspection; and the quantification of quality. (FAW-VW Newspaper, April 1997)

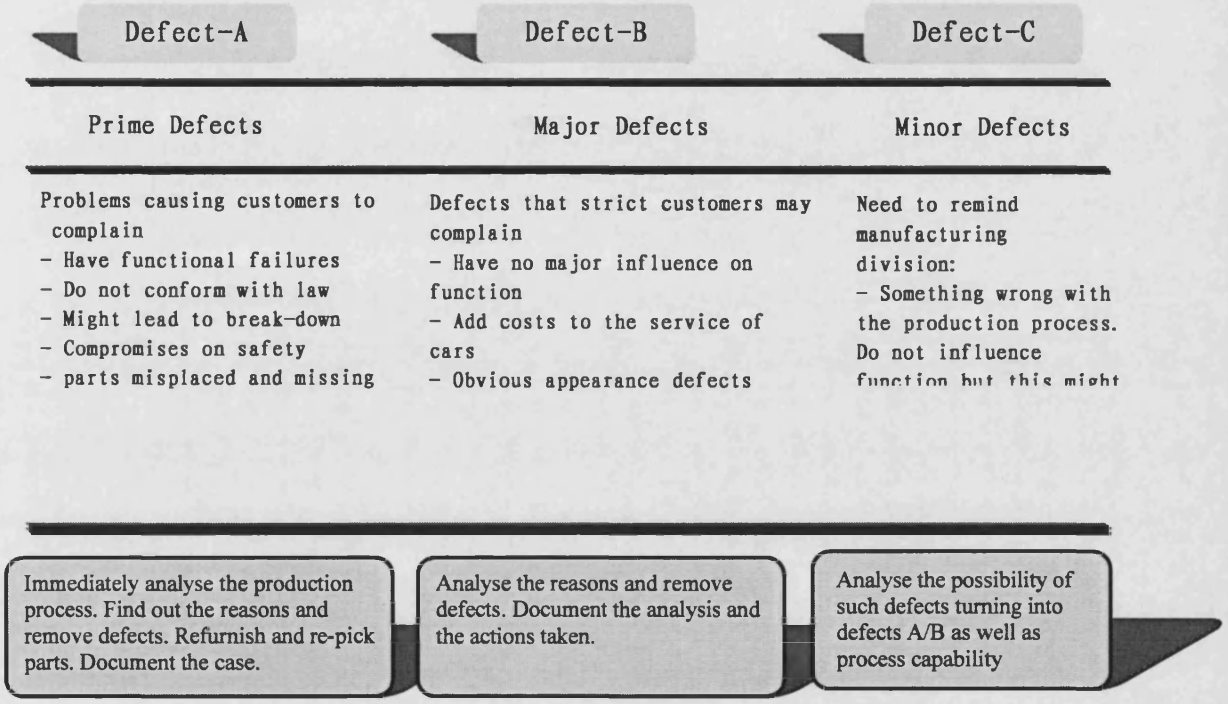
Standardisation

Quality Audit endows reality to the notion of high quality by standardising quality. It provides a benchmark against which products at different stages will be judged, analysed and compared. 'High quality' is not just an empty slogan. It was attached with a meaning, 'meeting with the expectations of the most

demanding customers and ensuring customers' highest level of satisfaction' (FAW-VW Newspaper, April 1997, July 1997, p. 2).

A Quality Audit standardises quality by defining what defects exist. It categorises possible defects into three levels, providing criteria for each type of defect and stipulating the actions which need to be taken for each type of defect (see the table below).

Table 3.1: Categories of Defects



(Source: FAW-VW internal document)

Through the standardisation of quality, workers are clear about what level of performance they are expected to attain. This also leaves no discretion for individual workers or quality inspectors with regards to sub-standard performance and subsequent actions to be taken.

A *Quality Audit* not only standardises the understanding of quality, it also standardises the process of quality inspection. It turns the dispersed actions of

quality inspections into a body of structured processes. Tables detailing technological standards to adopt during the audit as well as the general audit process charts are given below. The quality assurance actions are then free of any personal judgements of the section chief, quality inspector, plant managers and engineers. These employees become the executors of standardised processes.

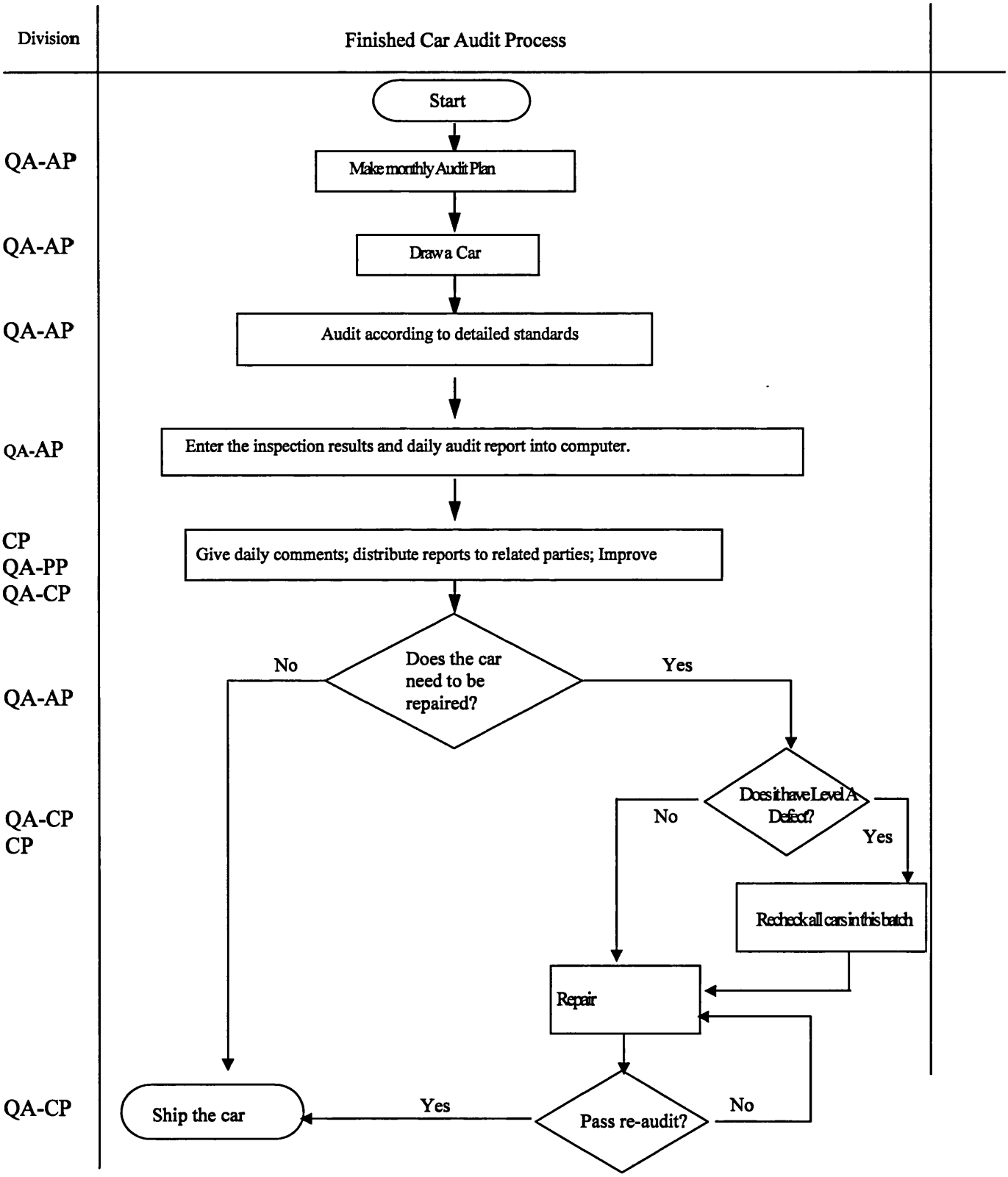


Figure 3.1: Finished Car Audit Process (Source: FAW-VW internal document)

Quantification

In the process of Quality Audit, not only is quality standardised, it is also quantified. A quantitative score is accorded to each audit subject after the daily Quality Audit. For each part, there is a standard score against which the awarded score at the end of each day is compared. The quantified scores of quality are integrated into weekly and monthly information, which is further analysed statistically. A score chart (see below) is also plotted. Such reports are made available to all related departments. The reason for substandard quality would be identified immediately and a particular division or post will be held responsible for rectifying performance scores to meet the standard.

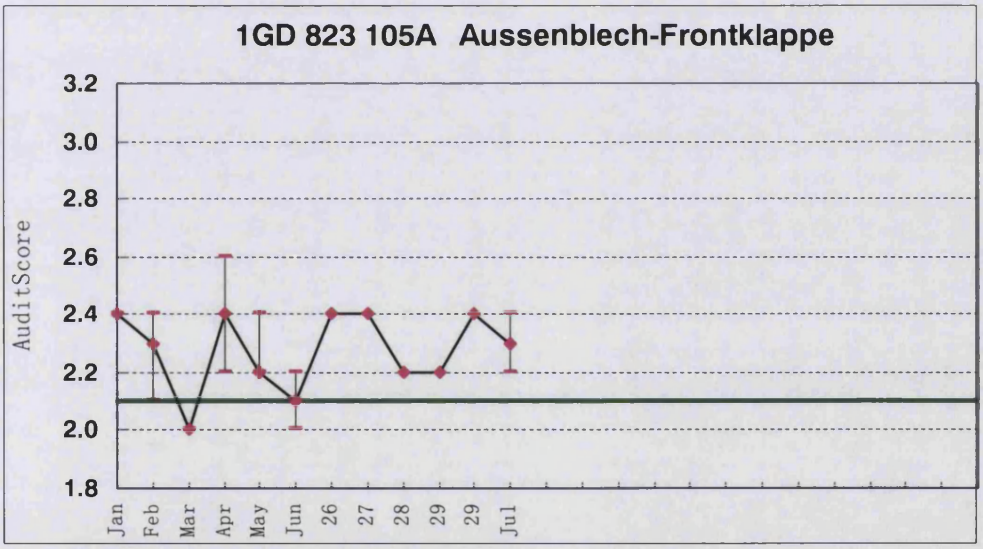


Figure 3.2: Illustration of Quality Audit Scores (Source: FAW-VW internal document)[20]

[20] The green line in the graph is the standard. For any score higher than the standard, it suggests that the quality is substandard.

2.3.2 Enforcement of International Quality Systems (ISO9000 and VDA 6 Series)

In the process of conforming to ISO9000[21], quality management systems were re-engineered. To conform to ISO standards, FAW partners defined in detail the responsibility and role of each division and individual production line position. Documents were produced to clarify the working processes and to systemise operational activities. From the beginning, the ISO standards were given high priority. Conforming to these international standards was not only conceived as a way to ensure high quality standards but also as an opportunity to transform and modernise the then current state-owned way of managing. FAW management also put in great efforts to make sure that each employee took the enforcement of standards into their focal concern and to ensure all employees would carry out their daily job strictly according to the specifications formed under ISO standards.

The following quotations taken from FAW-VW Newspaper show that the enforcement was seen as a way of achieving efficient production with high quality.

> *...ISO9000 standards control and prevent factors which have negative impact on the process of production, formation and realisation of quality in order to decrease and eliminate defects. In this way, the overall competitiveness of the firm would be significantly increased....* (FAW-VW Newspaper, May 1997)

Handbooks containing detailed working processes as well as responsibilities and roles for each department and position were written and made available to employees and workers during the implementation of the ISO-based quality

[21] ISO 9000 is a *family* of standards for quality management systems, set out by the Technical Committee of International Standardization Organization. See http://en.wikipedia.org/wiki/ISO9000.

standards. This information was believed to have strengthened the 'consciousness of quality' by workers:

> *Enforcement of ISO standards strengthens our quality consciousness. When faced with a problem we know to analyse the problem according to the system [ISO9000 system] documents... Rate of rejected products are reduced. The operation of our workers is more standardised* ... (Employee Interview, published in FAW-VW Newspaper, March 1998)

Moreover, the enforcement of international quality systems is seen as a way of turning the old-fashioned and inefficient management system under a planned economy into a modernised system.

> *...Strictly enforcing ISO9000 serial standards is bound to modernise, standardise and routinise management system of the firm.* ... (FAW-VW Newspaper, May 1997)

A better way of maintaining machines was implemented under ISO standards to achieve high quality assuring capability.

> *With ISO standards our plant has turned the maintenance of machines from passively maintaining to preventive and planned maintaining, enabling a virtuous cycle. In this way quality is greatly ensured.* ... (Interview with a plant worker, Newspaper, March 1998)

By improving product quality, ISO standards were believed by managers to eventually increase the competitiveness of the joint venture.

> *...ISO standards have been conceived as the basis of ensuring the quality assuring capability of a firm in the internal economic and technological cooperation. Therefore, enforcing ISO9000 standards has a significant influence on the competitiveness of the firm.* ... (FAW-VW Newspaper, July 1997)

The following quotation shows the effect of the enforcement.

> *Enforcement to ISO and VDA quality standards builds a management system which enables continuous high quality production. Quality management in each plant has improved significantly. ... The fact that we managed Jetta*[22] *remodelling in such a short time in the face of all types of quality problems and scored a 2.6 in the quality audit evaluation with the first batch of 400 cars is a living proof of the benefits we enjoy by such enforcement [with international quality standards]....* (FAW-VW Newspaper, March 1998)

The application of ISO standards is considered to be exploited to full advantage when each individual holds themselves responsible.

> *...every manager and every employee has to have the knowledge of the responsibilities and specifications of his/her post defined under ISO9000. Everyone has to follow the provisions and specifications for their posts when doing their daily work. We also need to double check for our own positions as well as others' positions, to see if any non-conformance with the ISO standards still exists.... We have to turn these [conforming to the provision and specification of ISO standards] into conscious activities* ... (FAW-VW Newspaper, November 1997)

All staff members were required to show responsibility and awareness of quality:

> *...Enforcement to ISO standards would turn 100% of employees "master of quality". ... when asked who is responsible for quality, managers or workers, engineers or guards would answer "me"* ..... (FAW-VW News paper, November 1997)

In this way, individual employees became actively involved in quality assurance and managing activities by simply carrying out what was defined in the systemised working process. As indicated above, from the establishment of FAW-VW until 2002, quality had been given the highest priority. Various techniques and strategies were developed and implemented to improve product quality. The firm was involved in both national and international certification

[22] A model of car produced in FAW-VW

programmes for the quality management system. Daily quantitative scores for quality were produced, the results summarised, and integrated weekly, monthly and annually, and analysed statistically. All decisions were made to conform to the central objective of improving and ensuring product quality. Complicated and lengthy VW product test processes, which exceeded the state standards regulated in China, were adopted to ensure high quality standards. The FAW partner complied with the quality terms set by the VW partner from the start of the joint venture until 2002. However, this quality centred control mechanism was revised from 2002.

3 Transition to cost oriented management

Since 2002, a new interpretation has been given to the idea of 'being competitive' within FAW-VW. Cost is now the focal issue in the control systems of the joint venture. Cost reduction is conceived as the primary force of competition and linked with the firm's sustainable development and future survival. A big portion of the profits rely on the effectiveness of cost reduction. Each individual employee has to take the agenda of cost reduction seriously. Hundreds of thousands of proposals for cost reduction were made by employees across all hierarchical levels and departments within the firm. These proposals were evaluated and adopted based on the value of the savings by each proposal. 'Star employees' who contributed to significant cost reduction levels were selected, publicised and rewarded monthly. The FAW partner also strove to replace parts originally imported from VW in Germany, with parts produced locally. Lengthy inspection processes to approve the replacements arising from cost reduction proposals or the localisation of parts, are no longer considered as a parade for high quality standards but as something 'counterproductive' that needs to be changed. The idea of cost replacing quality shaped the conceptions of employees' priorities at FAW-VW. Tensions between FAW and their VW

partner grew under the new programme, as cost had never replaced quality in the regime within which the VW partner operated.

To understand this transition, the following three issues will be considered. First, is how the temporary and fragile complex of relays and linkages that gave rise to the national and local concern of quality, was ruptured and subject to discontinuities in the face of China's renewed membership of the World Trade Organisation (WTO), and the resultant problematisation of the Chinese car industry in the face of this challenge. Second, relates to how new linkages were established between the national programme for developing the automobile industry, the local aspiration for competitiveness, and the new concern with cost. Third, is how the programme of cost reduction within the joint venture was made operable by mechanisms adopted within FAW-VW.

3.1 Re - problematising the car industry in the face of new challenges

To fully understand the transition of the quality-oriented management to a cost-focused management we need turn our attention first to events and discourses outside the boundary of the firm under study.

In 2002, China rejoined WTO. Around this time, various parties began to reconsider the car industry in terms of the future challenges brought by such a change. The car industry was considered as 'one area that is the most susceptible to this change' (Wei 2000). This issue was specific in the following two respects.

First, a series of protections (such as tariffs, quotas, and import restrictions) imposed by Chinese government in the past were to be removed. In this sense,

prices of imported cars would drop significantly. Chinese car manufacturing enterprises including joint ventures would face more severe competition.

> *...After joining WTO, import tariffs on cars would be reduced from 80% in 2002 to 25% in 5 to 6 years time. ...Currently, prices of cars in the international automobile markets are only 1/3 or 1/4 of those in Chinese markets. After tariffs decreased to 25% from 80%, the prices of imported cars, even with the tariff, would be much lower than those of the same kind made in China. While those imported cars have salient advantages in terms of quality, design and safety. ... For those high value-added car manufacture (FAW for example), the pressure would be even higher.* ... (Changchun Daily, May 13 2000)

In the following quotation from a magazine article, the intensified competition resulting from the removal of government protection, was described in this way:

> *After joining WTO, the Chinese market which was effectively closed by high tariffs and consumption policies would become part of the world automobile market. Chinese car industry is about to lose its current tariff and non-tariff protection. ... Import tariffs on whole cars would decrease from current 100% to 25% in 2006. Tariffs on most parts would decrease from 50% to 10% in 2006. In three years, the full distributorship would be accorded to foreign companies.* ... (Liu 2000a)

Price was considered as the primary way in which imported cars competed with local cars.

> *Once joining WTO, Chinese car industry is about to be subject to the influence of price factor. ... This is the primary way by which imported cars impact on national market.* ... (Wei 2000)

Second, joining the WTO would further open up the Chinese market. More international cooperation could develop between developed car producers and Chinese enterprises. This would intensify the competition of Chinese car maker

already triggered by the removal of industrial protection previously imposed by the government.

> *In 2002, the cooperation between Chinese and foreign car manufacturers is so large-scale and deep that it is unparalleled in the development of Chinese car industry. For example, the joint venture between FAW group with Toyota after the joint reorganisation between FAW group with Tianjin Automobile; the joint ventures developed between Dongfeng Group with Citroen and Peugeot respectively; and the biggest cooperation so far is established between Dongfeng Group and Nissan Motor.* ... (China Statisitcal Yearbook. 2003)

As the Chinese economy became more liberalised, most foreign car manufacturers, such as GM, Honda, Toyota, Hyundai, Citroen, Nissan, Peugeot, Chrysler, Mercedes and BMW, found partners in China[23].

These two aspects intensified the overall competition in the Chinese car industry. In the face of this event, new links were formed between the aspiration of building a national car industry, the concern with cost, and different agents and agencies. The issue of quality was subsumed by that of cost, and became the primary challenge both at a national level and at the individual firm level.

3.2 New focus of cost reduction

After the Chinese car industry was problematised with regard to intensified competition, cost reduction was prioritised and regarded as the primary means by which local car producers could stand out in the competition.

[23] Toyota formed a joint venture with FAW group. In total, FAW group has three joint ventures, FAW-VW, FAW-Toyota and FAW-Mazda.

> *Faced with the challenges, FAW-VW has to take the road of cost reduction, the only way for all Chinese car manufacturers....* (Liu 2000b)

In a local newspaper, this issue of reducing product cost was addressed as essential for the whole Chinese car industry.

> *Excessive costs are the primary reason for the lack of competitiveness for Chinese car manufacturers. ... Therefore, lowering the cost of products is the most important task for car producers. ...* (Changchun Daily, May 13th 2000)

In the 'Chinese Engineering Industry Statistical Yearbook 2002', reducing selling prices was proposed as the way for car producers to compete.

> *The current price of cars is too high ... Car manufacturing firms are encouraged to reduce costs in order to reduce selling prices. ...* (Yu and Xu 2002)

In the following quotation, cost reduction activities were greatly encouraged.

> *Car producers need to strategically reduce costs ... in order to narrow the price difference [between imported cars and produced cars] before tariffs decreased to 25% ...* (Wei 2000)

Corresponding to such external discourses, new meaning was ascribed to the core strategy of FAW-VW by the management of the FAW partner. Cost reduction, replaced the concern with quality, and was given a central place.

> *Cost has become the "first signal" for each department and every employee. ... Cost reduction is a protracted and arduous battle. The construction of international competitive cost level requires the joint efforts of all staff. ... For FAW-VW, this is just a beginning of a long journey. ...* (FAW-VW Newspaper, May 2005)

The quotation below shows the intensity of the price competition in the Chinese car industry around 2003.

> *From January to September this year, there are 48 new models of cars launched in the market. Over 80% of Chinese-made cars have reduced prices once, and 16% have reduced prices twice. The average price reduction is 9% while some products have decreased prices by 30% ...* (FAW-VW Newspaper, October 2003)

Cost reduction was regarded with much importance, as a significant portion of the net income depends on the effectiveness of cost reduction activities.

> *...every employee feels the pressure on their shoulder as every one of them has to fight for cost reduction. ... In the first 10 months of this year, one third of the income originated from cost reduction. ...* (FAW-VW Newspaper, October 2003)

In an interview, the CEO of FAW-VW stressed the importance of cost reduction for the firm to remain competitive.

> *... now challenges and pressures are from the market. What we have to do is to translate the pressures into our firm. This is mainly by cost reduction. ... In the past, FAW-VW had a high input. Prior to WTO, such high input can lead to high output/revenues. But now with more and more competitors and competitive products, profit margins are very thin. To maintain a reasonable margin and a sustainable development of the firm, cost reduction is the only way. ...* (An interview with the CEO of FAW-VW, Mr Qin published in China Trade News, December 2003 and FAW-VW Newspaper, November 2003)

3.3 Cost reduction technologies

With the central role accorded to cost reduction, two mechanisms were adopted to make the idea of cost reduction operable. These two mechanisms were the

cost reduction proposals collected from all employees in FAW-VW, and the localisation of parts originally imported from VW.

3.3.1 Cost reduction proposals

All employees in the firm were encouraged to make cost reduction proposals based on their expertise. Product department engineers could suggest changes concerning the design and material of cars so as to lower costs. Plant engineers and workers could make suggestions about operational procedures, techniques for operation, and production tools. Manufacturing departments could contribute to cost reduction by means of optimising transportation. Such proposals were expected from every staff member.

Moreover, an annual target of cost reduction was accorded to each division. This even became a part of the evaluation system

> *Based on the idea "Cost reduction is the first signal of the firm", management in Welding Plant requires each production line to embed the concept of "cost saving" in each operation. ... In May this year, more than 2,400 cost reduction proposals were made to contribute to the overall target of FAW-VW. ..* (FAW-VW Newspaper, May 2003)

The best proposals for cost reduction were selected and rewarded on an annual basis. The news item below describes one such event.

> *On Sep 25th, the factory[24] nominated 10 best proposals for cost reduction. ... The proponents for those top 10 proposals were awarded bonus and certificates by the CEO and Vice President*

[24] The factory in FAW-VW is a separate department as opposed to Department of Procurement, Department of Planning and so on. It consists of four plants: Press Workshop, Welding Workshop, Body Workshop and Assembly Workshop. It is through the production lines in these four workshops a car is produced and assembled.

of FAW-VW, Mr Qin and Mr Mi. ... In the first half of this year, employees in the factory made 17,629 pieces of cost reduction proposals, 3.15 pieces per person on average. These proposals achieved a cost reduction of RMB 59.82 million in total..." (FAW-VW Newspaper, October 2003)

In another scenario, the Top 10 cost reduction proposals firm wide in 2003, were selected. The annual cost reductions obtained from those proposals ranged from RMB 180,000 to RMB 20 million. The proponents were rewarded and set as examples for the rest of the firm. (FAW-VW Newspaper, March 2004)

Below is an excerpt from an interview with an engineer from the Department of Product, in which he gave a description of the cost reduction proposal project undertaken in his department.

My group is under the project called "constant cost reduction proposal". We look at the structures of different models of cars and try to make suggestions of cost reduction. For example, here this CD case originally comes with each Audi A6. Each costs 160 RMB. If you buy the same CD case here in China, each might cost 10 or 8 RMB. Cost wise we are able to save around 150RMB then we will have the marketing people to look into how much customers' values are. Apparently in this case the cost saved is much higher than the benefits so we will suggest to deduct this item from the list to cut costs. ... Usually cost reduction decisions include much more complex technical evaluation. For example, originally we use a piece of metal tube for the air conditioning equipment in Jetta, we suggested to substitute it with a piece of plastic tube. Then after the people from the product department after testing and experimenting decided that this has no influence on cars' performance, the changes will be formally put into effect. ... (FAW-VW engineering from Department of Product)

The overall effect of savings from the cost reduction proposals within each division is then compared with target set by the firm.

> *The "Cost Reduction Proposal Project' of Department of Product , after a whole year's efforts, has achieved cost reduction of RMB251.4 million by 18th December 2003, over fulfilling the annual target of RMB 250 million set by the firm...*
> (FAW-VW Newspaper, April 2004)

The technology 'Cost Reduction Proposals' required all employees to think from the perspective of constant cost reduction in their daily operational work and to make proposals to refine the working process, re-select materials used in production, and innovate manufacturing techniques. Such a technique motivates individuals by implanting the idea of cost deeply in the minds of all staff within the joint venture.

In the following section I illustrate how together with such cost reduction proposals, the other mechanism 'localisation of parts' contributes to the implementation of cost oriented control.

3.3.2 Localisation of parts

Besides the cost reduction proposal project, the second attempt made by the FAW partner to reduce cost was the supply of parts originally imported, with parts produced within China. FAW-VW does not produce all the different parts required, but instead buys components from its suppliers and then assembles them in the FAW-VW factory. The VW partner when introducing a model into the Joint Venture will clearly state which parts must be purchased from the VW Group in Germany and which parts can be purchased from FAW suppliers in China. Apparently the prices charged by Chinese suppliers are much cheaper than those by VW. Attempts by the FAW partner to increase the percentage of local components can be dated from the establishment of the FAW-VW joint venture. In the past, localisation had been effected with the purpose of

conforming to government regulations.[25] Since around 2003, such localisation attempts have been referred to as 'crazy localisation to achieve cost reduction' (FAW-VW Newspaper, March 2003). [1] This phrase is to show how committed FAW partner is towards the localisation programme.

Under this project of 'crazy localisation', targets for cost savings, expressed in monetary terms, are set for individual departments, such as the Purchasing Division and the Product Division. Employees in those divisions were then given targets to meet, against which their performance was evaluated (FAW-VW Internal Newspaper, 2004, 2005). These measures were designed to make individual employees align their activities with the firm's cost reduction objective.

According to an engineer from the Procurement Department:

> *For CKD parts [components that must be imported from German VW], VW will purchase them from their suppliers and sell them to us for twice the price they pay. In the past we've tried to purchase those parts directly from VW's suppliers via their Chinese representatives. But now this is forbidden. ... Our purchasing team will have localization targets each year to increase the percentage of components purchased from Chinese partners. ...*

Managers at FAW-VW also seek to locally source key parts and increase the local content rate overall.

> *Under 'Crazy Localisation Project', FAW-VW strives to increase both the width and depth of localisation. 'Localise all parts that can be localised'. We need to increase the localisation rate from 60% to 80% for some models. ... Some*

[25] 'Automobile Industrial Policy' issued by the Chinese government in 1994 stipulated that in order to avoid a whole car tariff, cars produced within China have to achieve a localisation rate of 60%.

core parts as well as special crafts and materials are also on schedule to be localised... (FAW-VW Newspaper, June 2005)

Such localisation requires approval from the German VW Technique Laboratory. The system applied in the VW Laboratory seems to be very complex which usually results in delays in the localisation attempt of the Chinese partner as well as delays in their cost-cutting effects.

This in the past was conceived as proof of high quality.

...when selecting a local producer for car parts ... the quality of parts needs to be tested strictly according with German standards mostly in VW labs. ... For example, to test the durability of safety belts, Chinese standard is to test no less than 35,000 times while the German standard is no less than 70,000. German standard also requires a dynamic test for the safety of the seat belts while Chinese standards do not require this. Strict test standards and procedures ensure the high quality of products ... (FAW-VW Newspaper, May 1998)

After embedding ideas of 'cost reduction' within the management system of FAW-VW, such testing systems are conceived as 'needing changes'

An engineer from the Production Department remarked:

Almost all of the components that are applied to be produced in China have to be sent to the VW Laboratory in Germany for testing. As these tests are usually not prioritised by the Laboratory, some of these could take as long as 2 years to finish. Even if we try to rush the engineers from Germany, it will still take as long as more than 1 year until we are able to cancel the order from VW. ...

... we need to speed up the certifying process from VW lab. ... It seems that the VW subsidiary in Beijing might take over some testing and certifying responsibility from the VW headquarters. ... This will greatly help solve partially the

problem of current over long certifying cycle. ... (FAW-VW Newspaper, June 2005)

The transition from a quality oriented management mechanism to a cost focused management became more pronounced after 2002.

4 Conclusion and discussion

In this chapter, I have analysed the emergence of a quality oriented control mechanism and the transition to a cost containment focus within a car manufacturing joint venture in China, namely FAW-VW. This is effected by examining control changes within the complex of linkages and relays formed amidst rationales, discourses, national programmes, diverse bodies of expertise, and the shifting control focus at FAW-VW.

Since the establishment of the joint venture in 1991 to 2002, quality was prioritised during the daily operation of FAW-VW. The local aspiration of 'becoming the best car manufacturing joint venture' (FAW-VW Newspaper, August 1997) was linked to the national concern to build a car industry as 'the pillar industry' while 'the best' was interpreted as 'the best in quality' within FAW-VW. A number of calculative and non-calculative devices were adopted to operationalise the local agenda of quality enhancement. Around the year 2000, the issue of China re-joining the WTO directed the attention of various parties towards China's competitiveness. In the face of this, the Chinese car industry was re-problematised in relation to the severe competition local car manufacturers would likely experience. The concern with the 'competitiveness' of Chinese car manufacturing enterprises was subsequently translated into a new local agenda accentuating cost reduction from the year 2002. Cost reduction superseded high quality as a programme of intent and became the new focus of control at FAW-VW. Hundreds of thousands of 'cost reduction

proposals' were collected from employees and implemented, while component parts that were originally imported from VW were replaced by cheaper components made locally. It is through these processes that the concern with cost reduction was made operable at FAW, entering the body politic of the employee.

This chapter has drawn upon certain concepts taken from the governmentality literature (problematisation, programme and technology). This work mostly seeks to elaborate on the way in which socially legitimated authorities intervene in and act upon people's lives (Foucault 1991a; Miller 1990; Miller 1991; Miller, et al. 2008; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and O'Leary 2007; Miller and Rose 1990; Miller and Rose 2008; Rose and Miller 1992). The governmentality literature can be applied to study what underpins certain facets of social and organisational lives. To understand the control dynamics in a Chinese joint venture, programmes and technologies between different levels are explored (Miller and O'Leary 1994a; Miller and O'Leary 1994b). The governmentality literature is valuable to the analysis in a number of ways.

First, applying such a framework allows the analysis to focus away from the notion of boundaries around the joint venture. The 'context presupposing control mechanisms' contingency theory, for example, would not allow the capture of the complex and intricate nature of conceptualising the extensive contingencies which help us conceptualise the firm: '...there is no "outside" or "inside" to such attempts to create reality. There are simply ways of problematising...' (Miller and O'Leary 1994b: p. 123). The governmentality literature allows the simple aspiration of a local car manufacturer to become the best joint venture at a micro level, to be connected to the national discourses at the macro level. The examination of the connections between national rationales and the control elements within FAW-VW illustrates how various

forces came together to enable the transformations of control foci within the joint venture.

Second, by examining the linkages formed between discourses, national concerns of competitiveness in the car industry and local control mechanisms in the joint venture, the governmentality framework helps us to elaborate why, and how, certain arrangements of the VW partner which were acceptable to, and welcomed by the FAW partner, at one point in time, led to increased tension and became the centre of conflict at another. The temporary agreement and peaceful cooperation between the two partners cannot be fully conceived from strategic considerations. Instead, temporary balances of power between the two partners are more likely to be associated with certain mechanisms and technologies i.e. the technologies of one partner (VW's high standard quality control mechanisms) resonating with the programmes of another partner (FAW's programme of building a modernised factory with internal competitiveness). Once the programme of FAW evolved and was infused with new meaning as the new issue was problematised by a multiplicity of agents and agencies, particular mechanisms would appear to be incongruent with the new agenda of FAW. As such, different programmes have been adopted by the partners alongside different sets of techniques. The harmony that initially prevailed, dissociated and tensions between the two partners emerged.

Third, the governmentality framework helps to explain how heterogeneous mechanisms rendered different programmes of FAW-VW operable. It is through these calculative and non-calculative technologies that partners are able to institutionalise and normalise the conduct and aspirations of employees. The study also shows how the techniques such as reports of quantified quality, or quantified assessment of cost saving of individual employee serve to transform employees into 'governable individuals. In the case under study, the new programme (cost reduction) superseding the old agenda of the FAW partner

(quality enforcement) does not imply that the prior balance is completely removed from the firm's consideration. Shifting programmes upheld by the two partners can coexist at the firm level. Heterogeneous technologies are then adopted to enable interventions and alter employees' conduct, which results in a high level of struggle between employees from the two partners and senior management, as well as the making of confrontational decisions. The governmentality framework enables us to understand these conflicting actions and decisions.

The chapter suggests the emergence of a particular rationale and force of change and how this was subsequently reshaped, leading to new tensions and dynamics. The framework is less directed at explaining the institutional usage and political deployment of such rationality, but instead examines the conditioning factors of the conflicts and struggles between employees and managers of the two partners, as well as the contradictory decisions made by them. The next chapter will continue to examine the usage and implementation of the control elements highlighted in this chapter by seeking to capture the tension between the two partners and the subsequent actions taken by each at a micro-level, and the rationales underlying the manner in which accounting controls were deployed in the context of such tensions.

Chapter 4 Symbol and Technical Rationality as Strategy: The Political Dynamics of Control at FAW-VW

1 Introduction

> ... *They [the Chinese employees] have a problem. They look at what Audi is doing and what VW is doing. Then they copy that, and it is like some fakes in the market. Outside it looks the same. But inside it is empty because they only copy the outlook of the function but not the function. It looks the same but it doesn't work in the same way.* ... (German engineer in Planning Department)

This chapter discusses the institutional pressures faced by the two partners and how the control mechanisms are shaped and reformed by such institutional pressures. It is argued that in the joint venture under study, institutional forces, whether instrumentalised managerially or whether symbolically decoupled from daily operational activities, are not solely sourced from outside forces but are themselves produced within the joint venture and exerted as a means to attain more control. The new institutionalism literature has not addressed the question of control dynamics in this manner, where legitimacy and the rational deployment of information are used in control settings.

In the past 20 years, most interpretive studies in accounting focus on how accounting, as a social and institutional practice, ramifies, extends and shapes the social environment in which it is embedded (Ahrens and Chapman 2007; Burchell, et al. 1985; Hopwood and Miller 1994; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and Rose 1990; Miller and Rose 2008). Miller (1994) summarises three distinct aspects of accounting as social and institutional practice: the first angle is that accounting acts as a technology that

acts upon activities, individuals and objects; the second focus is that accounting rationales come to constitute truth under which organisations are remade, processes are reconfigured and individuals' identities are redefined; the third aspect attends to the ways 'in which the economic domain is constituted and reconstituted by the changing calculative practices that provide a knowledge of it' (p. 1-3). Most interpretive research in accounting can be categorised into these three aspects, and contribute to the understanding that accounting cannot be interpreted without taking into consideration the context in which it is implicated.

However, this strand of research only attends to accounting in one social context that is constituted by actors who are of the same ethnic origin and who are subject to the same national culture. Though studies show how subcultures of an organisation are constituted in control practices that enable actors to pursue diverse objectives related to their subcultural origins (Ahrens and Mollona 2007), there is still only one social and institutional context from which the subcultures originated, and in which they are embedded. Nevertheless in international joint ventures where the partners are from different countries and are united by their strategic aspirations, there exist multi- institutional contexts to which different systems of symbolism and meanings are implicated. This chapter aims to elaborate on the way in which control mechanisms emerge from and shape multiple sets of contextual environments. Most importantly, this chapter traces the way in which institutional factors, not solely originating externally of the contextual environment, are produced politically by one partner to exert control over the other party. This is realised by studying the control system in one Chinese-German joint venture FAW-VW.

2 New Institutionalism: FAW-VW Automobile

Interviews with members of each party to the joint venture shed light on the different ways of thinking exhibited by the partners. An IT specialist from VW who had worked at FAW-VW for a 3-year term and asked to come back to FAW-VW before his retirement, commented that the difference between German and Chinese employees pertain to the way in which decisions are made and carried out:

> *...To get to the decision to get things started takes maybe five times longer than in Germany. But once the decision is done the work itself is done five times faster than in Germany...* (VW IT specialist)

Furthermore, he identified what he called three 'core differences' in work values between employees from the two parties:

> *I can think of three (differences from VW) one is the lack of responsibility... Second one is that people tend to do wrong things even when they know these are wrong.... Third is the importance of the complicated network – Guanxi here ...* (VW IT Specialist)

Another manager who works at the Control Division at FAW-VW and is from Audi Germany also concerns the distinct values employees from FAW seem to share:

> *They (FAW employees) become very self-conscious, in my opinion, sometimes too much. People think that they could do everything. This is also something from the system. The higher management level believes that the Chinese employees have to learn and do everything by ourselves...* (VW control manager)

Employees from FAW also find the ways in which tasks are undertaken, as well

as values attached to operational work, quite dissimilar from theirs. One FAW manager in the Cost Division commented on the comparative advantages of work done by employees from the two partners.

> *...The advantage of German employees is that they are very strict – they follow the processes step by step. While the advantage of Chinese employees is that they are very flexible but they tend to be so clever that they take shortcuts. So it is the best to combine the preciseness of Germany and the flexibility of Chinese....* (FAW Cost Manager)

One FAW middle manager from the Procurement Department also expressed his opinion on the inflexibility of VW employees.

> *... Germans are very strict – in a meeting if you are explaining something to them, they will understand you even if you miss one step in between...* (FAW Purchasing Manager)

An FAW quality engineer observes the different concerns with quality between the two partners:

> *...but they (VW employees) are too meticulous which is very costly. We have very different calculations for quality cost ...* (FAW employee in Quality Assurance Department)

From the above statements it is suggested that the two groups – FAW employees and VW employees – are implicated in two sets of coherent and smooth, social and institutional environments.

Accounting in any single context originates from, and exerts influence upon, the two sets of social environments. The relationship can be viewed in two respects: first, the conflicts and compromises between the two contexts give rise to the unique control system adopted in the joint venture. Second, the rationalities imposed on each partner, as institutional factors are adopted

politically, are a way to obtain more control and power over the other partner.

DiMaggio and Powell (1991b) identify three mechanisms through which institutional isomorphic change occurs: coercive isomorphism, mimetic isomorphism, and normative isomorphism. Adopting the above concepts from new institutional studies, this chapter does not attempt to imply that the control mechanisms at FAW-VW, to any extent, are sympathetic with those in any other firm. Notions, including coercive/mimetic/ normative isomorphism, are introduced to amplify the type of institutional forces to which actors are subjected. The focus here is on the manner in which institutional factors act on agencies and shape the control mechanisms.

Coercive isomorphism is defined as:

> *Coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by cultural expectations in the society within which organizations function. Such pressures may be felt as force, as persuasion, or as invitations to join in collusion. In some circumstances, organizational change is a direct response to government mandate.* (p. 67)

To a degree, coercive institutional forces are observable inside FAW-VW. The Chinese government has attempted to increase the international competitiveness of its enterprises by encouraging all companies to adopt ISO series standards. FAW-VW under pressures both from the Chinese government and industry competition, obtained ISO 9001 Quality System Certification in 1998. In 2002, the joint venture company passed the ISO9001:2002 standard certification, as well as the ISO14001 environmental control certification. During this process, FAW-VW redesigned the whole organisational system, redefined the functions and responsibilities of each department and position: 'The way that the organisation operates is completely different after the adoption of the ISO standard', commented an engineer who has worked in the organisation for more

than 15 years.

However it is not necessarily the case that coercive force will bring out deep and extensive changes within the company. For example, every launch of a new model of car needs approval from the Chinese government. FAW-VW prepares a feasibility report that includes market research, technology feasibility, and net present value analysis. However, the report is completely decoupled from the actual activities. The net present value analysis is not technically properly executed. An incremental cost analysis perspective is not deployed. Therefore even though FAW-VW employs these management tools, actual operationalisation is mainly ceremonial.

DiMaggio and Powell (1991) define mimetic isomorphism as:

> *...not all institutional isomorphism, however, derives from coercive authority. Uncertainty is also a powerful force that encourages imitation. When organizational technologies are poorly understood, when goals are ambiguous, or when the environment creates symbolic uncertainty, organizations may model themselves on other organizations.* (p. 69)

FAW-VW shows signs of being subjected to mimetic institutional force, as VW employees are regarded as possessing more knowledge and expertises in the area of product design, quality assurance, manufacturing, and financial control. This viewpoint is shared among employees from both partners and inspires learning and imitating VW practices by FAW employees, no matter whether such an imitation is firmly instrumentalised, or simply followed to signify legitimacy.

For instance, when the Chinese partner encounters problems they tend to imitate what the German partner would do. This was commented on by a German engineer in Planning.

> *...they [the Chinese employees] have a problem. They look at what Audi is doing and what VW is doing. Then they copy that, and it is like some fakes outside in the market. Outside it looks the same. But inside it is empty because they only copy the looking of the function but not the function. It looks alike but it doesn't work alike. ... They look at how we solve it when they have the same problem. Then they try to copy it. Here you only have it as black or white no grey. In Germany we say we have to look out if this is the better way, or if that is the better way. But the copy here is always extreme.*

Another comment made by a middle level FAW manager in the Control Division suggests the implication that the VW control system has on the control mechanism of the joint venture:

> *VW has a very advanced financial control system. We can learn a lot by working under the German CFO. ... (FAW manager in the Control department)*

DiMaggio and Powell (1991) noted that:

> *A third source of isomorphic organizational change is normative and stems primarily from professionalisation. (p. 70)*

In the joint venture under study, the way in which normative institutional forces shaped control mechanisms can be shown in the following ways. One instance is that of the VW engineers and managers who, by working in FAW-VW, bring to the joint venture company advanced technologies and management control systems. This resulted in a control structure in the JV more like that of the German partners:

> *When my Chinese partner came to work, he knew nothing about production. I had to teach him from zero... (VW manager in Assembly Workshop)*

FAW employees rely on the specialties and knowledge of VW's expatriates in their work:

> *We respect the German expatriates' opinions. They know more about quality and technologies. ... (FAW engineer in Quality Department)*

Overall, the professional networks that span FAW, Audi and VW, enable the knowledge of quality and control to diffuse from the German partners to the joint venture.

Another instance of the control of FAW-VW being shaped by normative institutional forces is that the Chinese partner hired a consulting firm to re-structure its management system. The new management tools resulting from this included a categorisation of positions. FAW-VW categorised all positions into 8 bands according to relative importance of the positions. The employees were then paid accordingly. However these procedures were decoupled from daily practices as indicated by some of interview quotations:

> *I am not sure which band my position belongs to. ... I don't really care about it. ... I don't see how it is different now... basically this is just a state-owned company...(junior engineer)*

It is also made clear that no obvious changes in the incomes of employees were observed after the adoption of the management techniques:

> *After applying the new position categorization, it seems that everyone's incomes all increased. Overall there is hardly any change at all. ... (Employee in Plant 1)*

From the above quotations, it is indicated that the change in the compensation scheme did not attempt to change the employee mentality and failed to link performance with pay.

The above three types of isomorphism give some insights into forces that shaped controls at FAW-VW. But they did not address forces determining the control dynamics in the organisation. The dynamic shaping of controls seems to be determined by the negotiated activities of the two partners as well as other factors.

3 Unveil the 'technical world'

The above application of the institutionalist approach to examining this study's data indicates the potential for this perspective and suggests that the limitation of the existing theoretical perspectives used to investigate alliance controls. They do not inform us as to the dynamics of control development, as the 'institutional pressures' framework adopted above conceives the actors as being passively subjected to institutions and norms which are shaped and transformed externally from their social embeddings and exerting on actors from outside. Such a one-way theorising of the empirical data from the joint venture can only partially be explained. The presumption of institutional pressures being simply imposed from outside the joint venture, does not allow us to capture the tension between the two partners; tensions that are characterised by conflicts and compromises, interference and resistance, autonomy and frictions of the two sets of actors. In the following section, I will first examine the tensions between the FAW and the VW partners involved in the joint venture, and then explore how these tensions interface between the symbolic and rationalities.

3.1 Demarcation between technical and institutional practices

Early new institutionalism studies regarded institutional pressures and norms only as existing in and apply to institutional environments, such as schools and hospitals, as actors in such contexts rely more on institutions and norms than rationality in terms of decision making and legitimacy seeking (DiMaggio and Powell 1983; Scott 1992b; Tobert and Zucker 1983). It is argued that in a 'technical' environment, effectiveness and efficiency is the driver for decision making while in an institutional environment it is the rules and norms that receive support and legitimacy (Scott and Meyer 1992). Although it is recognised by many neo-institutionalists that the institutional and technical environments of organisations are intertwined, the distinction between 'technical' and 'institutional' is still prominent (Hirsch and Lounsbury 1997; Lounsbury 2008; Palmer, et al. 1995; Palmer, et al. 1993; Strange and Soule 1998; Van den Bulte and Lilien 2001). The following definitions of the institutional and technical environment are borrowed to illustrate a neo-institutionalist's view on this demarcation.

Scott and Meyer (1992) defines institutional elements as

> *Institutional sectors are characterized by the elaboration of rules and requirements to which individual organizations must conform if they are to receive support and legitimacy from the environment. (p. 140)*

Conversely, technical elements are defined as:

> *Technical sectors are those within which a product or service is exchanged in a market such that organizations are rewarded for effective and efficient control of the work process. (p. 140)*

In the following section, I elaborate on an examination of the three main arguments of conflicts ('Quality' and 'Cost' Argument; 'Personnel Rotation' Argument; and 'Two-culture Interaction' Argument) captured by my empirical data to show that what appear to be "pure technical reasoning" is not entirely rational when exploring the instance of aroused tensions against its backdrop of social and institution contexts.

3.2 Conflict I: 'Cost' and 'Quality' Argument

The most prominent conflict observed at FAW-VW is the 'cost' versus 'quality' argument between the two partners. Since around 2002, the FAW partner attempted to cut product costs in different ways, with 'localisation' and 'cost reduction proposals' being the two focal mechanisms. This arose through the VW partner's significant concern with quality, as it was argued that such cost reduction techniques would cause unwanted consequences to production quality. In the next section I will examine closely the arguments put forward under each of the cost reduction techniques and suggest that such arguments are deployed technically and symbolically to vie for control by the two partners.

3.2.1 Localisation

FAW-VW does not produce all the different parts required for its vehicle production, but instead sources all components from external suppliers and then assembles them within the FAW-VW factory. The German partner when introducing a model into FAW-VW will clearly state which parts must be purchased from the VW Group in Germany, and which parts can be purchased from Chinese suppliers in China. The prices charged by Chinese suppliers are reported to be much less than the prices for VW sourced components. Therefore,

increasing the percentage of localised components is a commercially viable approach for the Chinese partner. However such 'localisation' requires approval from the German VW Technique Laboratory. The approval system applied in the VW Laboratory seems to be very complex which usually results in lengthy delays, thwarting the localisation attempts of the Chinese partner, as well as impacting their cost-cutting goals[26].

An employee from the Management Division commented:

> *... The more localised parts you purchase or the quicker you can realise parts localisation, the more interest VW will be losing. VW first makes money for the sales of car where the two partners are sharing the interest based on their equity in the firm – FAW 60% and VW 40%. Then VW is also making money by selling parts to FAW-VW. The more parts we import from VW, the more money VW is making. ... One of the most important part of the Localisation process of car components involves VW Technique Laboratory. ...the right to confirm whether this is alright belongs to VW Germany originally. They have the right and they tend to say that the parts produced in China are not good and reliable enough to be used in their cars. ...*

It was made clear with the above quotation that VW partners would lose part of their economic interest and the control over the production that they gained through their monopoly of technology, as the localisation rate at FAW-VW increased. As a result, delaying the process of localisation at FAW-VW served VW's best interests. This denial or delay of the localisation projects of the FAW partner was justified strategically by the concern with quality of the VW partner as further indicated in the quotation below.

> *Most importantly, this process could take a long time. Firstly, it takes time for the parts produced here to be transported to Germany. Then there is a long queue for the tests. You do not have priority there – the laboratory has a lot of other tests to*

[26] More evidence relevant to the localisation project can be found in 4.3.2 in Chapter 3

> *perform. Thirdly, after the test, if the parts are approved, it takes a long time for them to pass us the news. If they are not approved, it takes even longer to obtain the information. Then you have to re-choose the local factory, re-design, re-produce and ship the parts to VW again... (An Employee in Management Department)*

The above illustrates one part of the 'Cost' versus 'Quality' argument between the two partners which permeates FAW-VW. With the FAW partner trying to source parts required for production from local suppliers, VW appeared to delay the process of localisation and set very high quality standards which the locally produced parts had to meet before the localisation could be approved by the VW partner. According to the demarcation between 'technical' and 'institutional', such a conflict may be interpreted as technical, as both parties were adopting technical rationales for their arguments: the FAW partner was trying to cut costs in a competitive market, while the VW partner who considered quality as essential and primary did not wish to allow sub-standard parts to be used in their cars. This is only one aspect of the 'cost' (FAW) versus 'quality' (VW) argument between the two partners. Such commercial collision is further manifested in the next sections:

3.2.2 Cost reduction proposals

From 2003, the FAW partner started a cost cutting project, Cost Reduction Proposals, which required all its employees, whatever division they belonged to and in whatever hierarchical ranks they were categorised, to make cost reduction proposals based on their expertise. Product department engineers could suggest changes concerning the design and material of cars so as to lower costs. Plant engineers and production workers could make suggestions about the operational procedures, techniques for operations, and production tools. The manufacturing department contributed to cost reduction by proposing the means

to optimise transportation[27].

In most of the cases such proposals commanded a higher level of technological knowledge. The same engineer in the Production Division further commented:

> *Usually cost reduction decisions include much more complex technical evaluation. For another example, we changed the intake tube in Jetta from metal to plastic. Based on an annual manufacturing volume of 100,000, such a change will decrease the cost by 3 million RMB. ... Such innovative ideas usually come from all employees in FAW-VW;*

Moreover, a German manager in the body shop expressed his dissatisfaction about the FAW partner's neglect of quality:

> *Chinese managers do not care too much about quality. In the beginning we had 2 groups of workers working 12 hours a shift. According to the Chinese manager, workers like this arrangement because they will be able to make more money to support their families. But the daily quality indicators looked terrible. So I forced him to change the arrangement to 3 groups of workers working 8 hours each. The quality after this change improved to a satisfactory level.*

Such constant endeavour for cost reduction from the FAW partner became a source of disagreement and conflict. Another instance of such a collision at FAW-VW in terms of the cost reducing endeavours of the FAW partner, and quality concerns of the VW partner, is shown below:

The joint venture has two manufacturing plants. The two plants employ around 10,000 workers in total. However, only 60% of these 10,000 workers are formal employees. Take Plant 1 for example: there are 7708 workers, only 58% of which are formal permanent employees (4448). The rest include 2770

[27] For more evidence regarding the cost reduction proposal project, please refer to 4.3.1 in Chapter 4.

temporary workers and 490 interns. For temporary workers, FAW-VW pays much lower wages and does not need to cover the social insurance, pensions and other social welfare benefits. The Chinese partner apparently has its own strategic considerations in choosing such a worker profile, according to the assistant manager of Plant 1.

> *FAW-VW by choosing such a worker structure [very high proportion of temporary workers] has its own considerations. Such an action will save the company a large amount of money in labour cost every year. While the formal workers may have a base salary of 4000- 5000 RMB, the temporary workers by performing the same task only earn 2000-2500 RMB, let alone the money saved in social insurance and pensions the company needs to pay.*

When asked whether this can lead to a high turnover in the work force or influence manufacturing unfavourably, the manager noted that:

> *Yes, this is unavoidable. This might have some impact on the production, but of course this has been taken into consideration when such a decision is made.*

There is a very high turnover of the workers. The data obtained from the interview showed that in Plant 1, workers who have worked in FAW-VW for more than 6 years comprise only 4.49% of the total number of workers, while 56.45% have worked less than one year. However, the time to train a worker to operate independently could last as long as 3-6 months dependent upon different workshops. According to the German manager, such a configuration has decreased efficiency and quality to a substantial extent:

> *We are not happy with their attitudes concerning quality at all. They [Chinese managers] hire too many temporary workers who have a very high mobility rate. By the time we finish training them, they leave maybe due to some family issues or maybe because they find a better paid job. This has a big influence on*

quality. If you look at the relationship between working years and quality level the workers are able to achieve, usually the longer you work, the more efficient you are and the higher the quality is. We've tried to persuade them but we can't overrule their decisions in this case.

The above conflict between FAW's cost reduction endeavours and VW's quality concerns may appear to be simply a technical interaction between cost and quality arguments. However after examining closely the social and institutional context in which each partner is embedded, it is argued that technical rationales are used strategically by each partner to expand their control over FAW-VW.

In the previous chapter, Chapter 3, it has been argued that from the start of the FAW-VW joint venture to 2002, a quality oriented control mechanism was adopted at FAW-VW while after 2002, cost replacing quality rapidly and abruptly became a focal issue in the overall management system. The swift change of control focus from quality enhancement to cost reduction for FAW managers can not be simply interpreted as a technical consideration in a highly competitive market. The governmentality framework helps to link the transition of control focus of the FAW partner from 'quality' to 'cost' by identifying wider shifts in associated rationales, discourses, national programmes, and diverse bodies of expertise. For the VW partner, the amplification of quality is not simply a technical consideration either. The transition to a cost focus with mechanisms including localisation and cost reduction proposals, rendered part of the exclusive expertise of the VW partner potentially useless, depriving them of their monopoly power over the products, and to some extent, weakened their power to control the joint venture as well as the ability to further benefit financially. Hence, the amplification of quality, the high quality standards set by VW, and the complicated processes for approving localisation proposals, are more likely to reflect the rational use of economic argument to impose more control over the other party (FAW partner). In a way, symbols of cost and

quality go back and forth to exert control over the joint venture and each other. Control rationales are used as a guise for control by the partners - they signal the need for adherence to technical standards in the absence of commitment by either party to the legitimacy of their technical rationality.

Another illustration of this in the joint venture is the VW concern with the periodical rotation of FAW managers.

3.3 Conflict II: 'Personnel Rotation' Argument

In the joint venture the managers are rotated on a frequent basis. There is an informal policy in the company that the junior managers will be transferred to a different position every 2 years and senior managers every 4 years. The senior managers will even be re-allocated to other companies within the FAW group. The reasoning that the FAW partner provides to legitimise such an informal policy is that the all-embracing experiences that the managers have will develop their potential capacity and improve their performance. Such policy, as claimed by VW managers, impedes the effectiveness and efficiency of their work. The frequent change of the FAW managers, sometimes, even the interpreters, whom German managers work with, constantly challenge German managers' daily work.

According to a German manager in the manufacturing plant:

> *...My Chinese partner was changed overnight. When I began to work with him, he had no knowledge in this area at all. I have to teach him from beginning. Then suddenly one day they wanted to transfer him to some other place, and they didn't ask my opinion before they make such a decision. Then he was gone in one day. Usually in Germany you will use two weeks to train your successor. But here when the new manager came, the old one*

was already gone. So I have to start training him all over again.
...

One IT specialist was on his second visit and was complaining that all the staff he used to work with were gone.

> *...on my last visit, my colleagues and I had worked hard to train the people in this department [IT department], but now almost all of them are gone. I have to start working with some people who know nothing again. ...*

Another example given by a German manager in Planning:

> *I've experienced that HR department changes jobs of people every, don't know maybe 2 years puts people which are experienced and learned special things with a big effort, takes them from this place to another where they don't have any skill about that and put new people there and they don't have skills for this job.*

A German manager in body shop explained how he struggled to keep his interpreter:

> *...in this company, they will change employees to other places. Once they [HR department] decided to change my interpreter. I can't accept that as she is not just an interpreter, she knows so many things by now. She makes my work easier. ...*

Another German manager also confirms the interference on his operational work by such frequent personnel mobilisation as follows:

> *Three years ago we had a training campaign in Germany we educated 25 workers with a lot of effort in Germany. A lot of German colleagues came to here to train these people with special skills car electronics. None of these 25 guys is on his job now. They are all removed by HR department. Other colleagues are on this job but they cannot do it. So we have a lot of trouble*

in production because people cannot do their work. ...

The above can be interpreted again as technical conflict between FAW's attempt to cultivate 'comprehensive' high quality management with experiences in different divisions, and VW's motive to perform their jobs more effectively and efficiently by working with managers who have past experience and with whom they have worked. However such interface of technical rationalities cannot be taken at face value. I argue here that the rational conflict portrayed above again is the symbolic usage of economic rationalities in order to secure better control.

From the perspective of the FAW partner, other aspects of the consequences of the rotation policy for FAW managers, beyond the importance of experiences in different departments, have to be taken into account. First, as the managers only work in one position for no more than 4 years, and in some cases they do not even know how long they will continue to work for FAW-VW, their commitment to the job will be discounted and they will tend to make short-sighted decisions. Second, as the decisions about transfers are made by HR departments of FAW-VW and FAW, who have little knowledge about the constitution of the technical jobs and their requirements, the managers could be transferred to a position where their previous experiences are of little use. Third, there have been several cases where managers have been transferred to some companies or positions that are less important or less well-paid than the ones they used to work for, before choosing to quit and take their experience to private companies. Therefore it is argued that this frequent reallocation of managers within the FAW group has a strong institutional footing[28]. This is to highlight the control of FAW over the joint venture. As for VW managers, the economic rationalities are used politically to signal their dissatisfaction with their lack of control in this area. Again, the symbolic usage of rationalities goes

[28] This issue is further addressed in Chapter 5.

back and forth between the two partners and serves the ultimate purpose of exerting and legitimating control.

3.4 Conflict III: 'Two-Culture Interactions'

In this section, I will further illustrate how rational reasoning coexists with symbolic adoption of control mechanisms by examining the third pervasive conflict in the joint venture: the abrasions between the different cultures and work ethics of FAW and VW employees.

During my stay at FAW-VW, almost all German managers complained about the different work cultures of their Chinese co-workers:

> *Here [FAW-VW] people's loyalty is not high enough, I don't know. They are more worried about themselves. But when I ask them to do some work, they say that this is not my responsibility, and that's it. ... In order to get them to work, I have to say please do this job, if anything goes wrong I will be responsible for that.* ... (VW Manager in Department of Planning)

An IT specialist commented:

> *... [when asked to do work] the first thing people ask is "is this my job or is it anyone else's job. If it is not my job I will do nothing but I will not say that I will do nothing. ...Here sometimes something must be told to be done. If not it is not done for days. Then suddenly they are told that if it is not done by tomorrow morning we have a problem. Then some thing happens overnight. When you come in the morning you will find things are done. This is the interesting thing in this country.*

A FAW manager in the Control Department remarked:

> *German managers tend to think very formally. To work with them*

you have to explain every bit of the details. If you miss one step in between, they will stop you and you have to start all over again. ...

The above comments exemplify the manner in which economic rationales are interfaced with the symbolic between the two partners. For FAW partners, the use of a loose responsibility system allows them to reject any requests from VW partners that are deemed as unreasonable or unfavourable on their behalf. Such an arrangement gives FAW managers the flexibility to impose more control on their own personnel. Therefore, the political adoption of rationales (such as job responsibilities) by the FAW partners is used to signal the legitimacy of autonomy when control is imposed by the VW partners. Hence for VW managers to successfully implement control, accounting serves the symbolic means by which to exercise control. As shown in the quotations below, VW managers seek to orchestrate their control on the joint venture company by their meticulous request of information via the tight accounting systems (such as the budget and ERP system) imposed:

> *Everything you do, every single cost that is incurred in this company has to be based on a certain budget. All the reimbursement applications and purchasing orders are processed within the system. We do not have any paper documents. ... The budgets are made based on historical data allowing for the need of our future development. For example, if this year's output volume is not different from the one for last year, then most of the costs have to be maintained at the same level as that of last year, or even lower.* (FAW manager in Control Department)

VW partners have introduced an ERP system to the joint venture which enabled all costs incurred to be examined within the system in a timely manner. All expenditures had to be processed according to the budget agreed upon and any changes to the budget needed to be approved by VW managers in the Control Department.

> *If you have new projects this year, then you have to submit a proposal to the Control Department explaining how much investment you will need. Then Control Department will discuss with the proposing department to agree on the final budget for the new project. Once the budget is made, it cannot be changed. ... If there were any unforeseen or uncontrollable events happening, you can apply for a change or increase in your budget. But this can be very complicated. An application like this has to be approved by the BOM. So usually there will not be any increase in the budgets. ... Therefore, there are only positive variances at the end of the year.* (FAW manager in Control Department)

The above quotation indicates that budget system is designed in a way which enables enhanced control by VW managers over the joint venture. As the VW partners attempt to extend and operationalise their control over the joint venture company via the tight budget control mechanism, the FAW partners seek to justify the legitimacy of autonomy via the use of a loose responsibility system. The conflict of different cultures and work values can be interpreted as the interface of different strategies adopted by the two partners in their attempt to effect power and orchestrate control on the joint venture company. For the FAW partner, the loose responsibility system allows employees to signal the legitimacy of autonomy when VW managers attempt to impose control, while the VW managers adopt a tight accounting system to satisfy their demand for detailed information. Again rationality is manoeuvred politically to obtain more control.

4 Conclusion and discussion

In Chapter 3, the various forces were examined that enabled the transition of particular rationales from a quality focus to a cost focus within FAW-VW. That analysis has drawn upon certain concepts taken from the governmentality literature (problematisation, programme and technology), works which mostly

seek to elaborate the way in which socially legitimated authorities intervene in, and act upon, people's lives (Foucault 1991a; Foucault 1991b; Miller 1990; Miller 1991; Miller, et al. 2008; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and O'Leary 2007; Miller and Rose 1990; Miller and Rose 2008; Rose and Miller 1992). From the establishment of the joint venture in 1991 until 2002, quality was prioritised during the daily operations of FAW-VW. The local aspiration of 'becoming the best car manufacturing joint venture' (FAW-VW Newspaper, Aug 1997) was linked to the national concern for building the car industry as a 'pillar industry' while 'the best' was interpreted as 'the best in quality' within FAW-VW. A number of calculative and non-calculative devices were adopted to operationalise the local agenda for quality enhancement. From 2000, the issue of China re-joining the WTO directed the attention of various parties towards the need for competitiveness. In the face of this, the Chinese car industry was re-problematised by various government agents, scholars, economists, and other experts within and outside FAW-VW, in relation to the severe competition local car manufacturers would expect to experience. The concern with the 'competitiveness' of Chinese car manufacturing enterprises was subsequently translated into a new local agenda in terms of cost reduction since 2002. Cost reduction superseded quality as a programme of intent and became the new focus of control at FAW-VW. Hundreds of thousands of 'cost reduction proposals' were collected from employees and implemented, while vehicle components that were originally imported from VW were replaced by cheaper parts made locally. It is through these technologies that the concern with cost reduction was made operable at FAW entering the body politic of the employee.

Although Chapter 3 examined the conditioning forces on the transition of rationalities within this joint venture, it did not show how these rationalities were used politically and symbolically in the joint venture.

Chapter 4 attempted to complete the analysis by examining the ways in which rationales are adopted by each of the two partners to impose their control on the joint venture. This analysis draws upon, but also goes beyond, the new institutionalism framework. Traditional new institutionalism is based on one single set of social contexts and to some extent does not allow further elaboration of the tensions at FAW-VW characterised by conflicts and compromises, interference and resistance, autonomy and frictions of the two sets of the actors – the joint venture partners.

What appear to be technical interactions and reasoning, can be anything but technical. This is evident in examining the three principal conflict types between the two partners exhibited within FAW-VW. The partners, each upholding different values and inhabiting different sets of social and institutional contexts, attempt to exercise a specific form of control over the other joint venture partner, thereby exhibiting the high particularity of a rationale. The pursuit of quality, and the stress on efficiency and effectiveness by the VW partners, contrasted with the focus on cost reduction, the emphasis on the comprehensive development of high quality managers, and the concern with a structured responsibility system by the FAW partners, are better portrayed as rational uses of the symbolic nature of an economic argument enabling more extended control over the joint venture.

The appeal to technical rationales to guide partner actions accords with symbolic uses of rationality as discussed in the institutionalist literature. However, the movement of such symbolic appeals back and forth between the two partners to exert control over the joint venture is of particular significance. The empirical interviews illustrate the degree to which both parties in the joint venture appeal to technical rationalities in a symbolic manner, whereby conditioning influences from within and outside the joint venture become co-mingled and are not necessarily decipherable as having unique provenance or

continuity. The joint venture evolves its own forces of change which combine with those external to the entity. FAW was constrained by having to meet VW based quality regulations and standard achievements. FAW met with the reporting requirements in a variety of ways: quality standards reports, localisation quality tests, and budget reports. By contrast, VW was challenged to meet the FAW imposed personnel rotation system, and cost reduction endeavours. One perspective in interpreting the control dynamics using the new institutionalist frame of reference is to consider the extent of the rationalistic versus symbolic appeal of the reported information to the other party. The evidence presented suggests an ambiguity between the technical and symbolic reporting of information. Technical and symbolic usages of control elements become commingled and inseparable.

The prior new institutionalism literature has not addressed the question of control dynamics in this manner where legitimacy and rationalistic deployment of information is used in control settings in an intertwined manner rather than a conceptually demarcated manner. The empirical evidence presented in the chapter suggests that control mechanisms are not only adopted by partners symbolically to justify their attempt to effect power and conform to institutional forces, but also implemented rationally to achieve certain strategic objects (e.g. to be more efficient). It is in this way this chapter seeks to contribute to the new institutionalism literature.

In the next chapter, the effects of the control mechanisms deployed within FAW-VW will be examined. It is contended that employees did not fully engage with the control system. Influenced by the ancient school of thinking, employees within FAW-VW followed certain protocols concerning interpersonal relationships and had a different attitude and philosophy pertaining to rules and norms, workplace and life values from the calculative selves in a neo-liberal context.

Chapter 5 Control and Accounting Mechanisms and Effects: Managing Employees at FAW-VW

1 Introduction

This chapter attempts to contribute to the literature by adopting an approach grounded in qualitative empiricism in an attempt to increase our understanding of the social and institutional conditioning forces affecting management controls in a Chinese-German car manufacturing joint venture company. The governmentality literature informs the empirical analysis of the in-depth, longitudinal case study. It is argued that Foucault's concept of governmentality is regarded as useful in analysing the mechanisms adopted to direct, shape and manage the conduct of individuals within an enterprise, such as the car manufacturing joint venture between FAW and Volkswagen (Burchell 1996; Foucault 1991a; Rose 1988; Rose 1992; Rose 1996).

A number of researchers have shown an interest in studying how a variety of technologies and devices are deployed to render activities, individuals and domains governable, and how certain political and regulatory programmes connect up to the 'self-regulating' propensities of individuals in the era of New Liberalism by drawing upon Foucault's complex and multifaceted work on 'governmentality' (Burchell 1996; Foucault 1991a; Hoffman 2006; Hopper 1998; McKinlay 1998; Miller 1991; Miller 2004; Miller and O'Leary 1987; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and Rose 1988; Miller and Rose 1990; Miller and Rose 2008; O'Malley, et al. 1997; Rose 1988; Rose 1991; Rose 1992; Rose 1996; Sigley 1996; Sigley 2006). What Foucault termed governmentality is the use of a plethora of theories, notions, calculative devices, technologies, strategies and specific expertise through which diverse

authorities and institutions attempt to act upon individuals and their activities to achieve desirable states (Foucault 1991a). For Foucault, government is not perceived as certain administrative units or constraining bureaucratic authorities. Instead it is defined generally as 'the conduct of conduct' and construed as 'an art', or 'a way of doing things', for acting upon the actions of individuals, namely to guide, direct, channel, shape and modify the way in which people conduct themselves (Foucault 1991a: 234). Taking its cue from Foucault's work, a stream of research has flourished which has looked at diverse aspects of people's social and political lives with regard to the practices of 'governing' and 'being governed'. It is contended that an array of technologies and mechanisms of government, such as the design of the factory floor, centralised systems of economic planning, accounting techniques and expertise, manage and shape the 'self-regulating' capacities of individuals to render their activities amenable to diverse political programmes (Miller 2004; Miller and O'Leary 1987; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Rose 1992; Rose 1996; Rose and Miller 1992).

The concern of this chapter is with the ways in which attempts to transform employees at the joint venture company FAW-VW into governable individuals were made. In particular the concern is with how certain calculative technologies attributed visibility and accountability to the individual employees; how the behaviour of factory workers was subjected to constant observation and scrutiny; and how individual employees were attributed different norms of conduct under different programmes. However, compared with actors studied in a neo-liberal setting, as documented in the literature, employees at FAW-VW were imbued with different cultural, institutional, social and political attributes. It is contended that these practices of government acted differently on the employees of FAW-VW and their activities. In a neo-liberal society, as Rose (1996: p.61) explains,

> *... ["advanced" liberal strategies of rule govern] through the regulated choices of individual citizens, now construed as subjects of choices and aspirations to self-actualization and self-fulfilment. Individuals are to be governed through their freedom...*

In this sense, an individual citizen is a calculating self, 'a self that calculates about itself and that works upon itself in order to better itself' (Rose 1992: p.146). The autonomous selves are inclined to choose freely from the choices available to them, with the aspiration of self-fulfilment, self-realisation and maximisation of personal well-being, being the ones that are aligned with certain political programmatic schemata. In the context of FAW-VW, the calculative technologies which were dependent upon individuals' autonomous choice of self-realisation and self-improvement have different effects on employees. This is not because these persons are denied the freedom of choice (choice of an occupation, choice of studying for a degree, choice of climbing up the career path ...), but because to some extent these people, who are trained and institutionalised to take orders obediently from their superiors, find themselves confused and powerless when confronted with an array of choices. Deeply influenced by an ancient school of thinking (the doctrine of the mean), employees in the joint venture company held a different attitude and philosophy pertaining to rules and norms, and to the workplace, and altogether different life values compared to their German counterparts. They lacked the spirit of entrepreneurs to take initiatives and were held back by the fear of doing something wrong.

It is therefore argued that calculative devices such as the statistical representation of performance data, and the standardisation and quantification of parameters that are to be controlled, acted upon employees at FAW-VW because the FAW employees were inclined to follow societal norms and act in commonly recognised ways. They were likely to carry out operations as stipulated and avoid doing anything wrong. The fear of being out of line and

being singled out stops them from pursuing further self-achievement. Such an effect is strengthened by certain institutional practices and phenomena in the company, such as the employee rotation practice and the extensive importance attached to interpersonal relationships, i.e., Guanxi. To a certain extent, there is resistance towards the devices and technologies of governing at the individual level. In some cases, actual practices become decoupled from the formal control mechanisms. Embedded in a completely different set of social, political and institutional contexts, FAW employees within the joint venture react to the control mechanisms imposed on them differently from individuals in a neo-liberal setting as indicated in the literature (Burchell 1996; Rose 1988; Rose 1991; Rose 1992; Rose 1996).

This chapter is organised as follows: the first section provides a short history of the transformation of the focus of control at FAW-VW which is helpful in understanding how certain norms and ideals were shaped at the joint venture company; the second section focuses on the way in which attempts were made to transform the employees at FAW-VW into self-regulated individuals by the use of a series of calculative devices under two different national- and factory-level programmes, i.e., quality improvement and cost reduction. The chapter discusses two apparatus designed to increase the visibility and accountability of individuals. In this process, different rules and norms are attached to employees under different programmes. Various calculations are used to align the actions of the employees with the objectives of the firm. In its third section, the chapter continues to examine the mechanism through which calculative devices act upon employees at the joint venture company. Then in the fourth section, the chapter looks at the level of resistance met from the employees and the extent to which actual practices deviated from those informed by the system of devices and technologies. The multiple effects the technologies generated are associated with certain practices followed in the joint venture company. FAW employees at FAW-VW are subjected to certain ways of thinking, by virtue of their

education as well as their interactions with other members of society, and are enmeshed within a web of interpersonal relationships, i.e. a web of Guanxi, which constrains their ability to choose freely the responsive actions which are dictated by the calculative devices. The history of dynastic China is drawn upon in order to understand the conditions under which the specific practices and protocols prevailing at FAW-VW, have emerged.

2 A brief overview of the control shifts at FAW-VW

From the establishment of FAW-VW in 1992 to around 2002, a quality oriented control system was implemented, while standards and norms of quality as well as conduct to ensure and improve such quality, were established. Employees were made accountable for their conduct, it being judged against such norms and standards. After 2002, with China rejoining the WTO and increased concerns about the competitiveness within and outside FAW-VW, cost reduction quotas were imposed on employees. Different calculative devices were used to transform individuals into self-regulated entities who would automatically strive to achieve constant improvement and cost reduction. On these two occasions, the attempts to construct a 'governable person' were far from successful. Employees at FAW-VW responded to these rules and norms in their own ways, which were other than expected when these micro-management technologies were designed and implemented. The process of transforming individuals is an exceedingly complicated one as a number of institutional, social and political forces come together to affect individuals and influence their activities, factors that are beyond anyone's control when the control system is designed to align the behaviour of people with the programmes of the firm.

Shortly after China's opening-up and economic reform in the 1980s, a concern with the competitiveness of the Chinese car industry was regarded as a central issue nation-wide. The car industry was seen as problematic, with concerns expressed about its lack of modern management, about its technological lag, and about its product quality and variety. Such concerns were expressed by a diverse and heterogeneous group of agents, i.e., politicians, economists, entrepreneurs, academics, engineers and so on. Attempts to improve product quality and establish high standard quality management systems were considered imperative. FAW-VW was established as part of the schemes to support the development of the Chinese car manufacturing industry as a whole in the 1990s. The company identified 'becoming the best car joint venture' as its core pursuit (FAW-VW Internal Newspaper August 1997). Linkages and relays were formed between such a local factory's scheme and a series of national programmes with the aim of increasing the competitiveness of the car industry. 'Being the best joint venture' was interpreted as 'having the best quality'[29] and a quality focused control mechanism was implemented. Quality was the first priority of the factory and every decision had to be made in congruence with the quality enhancement objective of the firm. A series of calculative technologies, such as a quality audit and quality standardisation, were implemented to make the programme of quality enhancement operable. Such technologies attempted to render visible and accountable, individual employees in the joint venture company, by surrounding them with prescribed quantitative and qualitative standards. Quality was quantified and quality control activities were standardised and routinised. Individuals were judged against such standards and were held accountable for their activities.

Such technologies were not a complete success. Employees who became familiar with the procedures and routines were transferred to other positions. Moreover, certain rules or quality standards were not observed, deemed as

[29] This is indicated in FAW-VW's Internal Newspaper from 1997 to 2002.

special favours in exchange for other benefits.[30] The transfer of certain techniques for quality control from the VW group in Germany to the joint venture company in China is not yet complete as these are embedded in a different social and institutional context. Such technologies, combined with the specific social and institutional factors, transformed and shaped the behaviour of individual employees in the joint venture company in a way which was not intended.

In 2002, China rejoined the WTO. Around this time, various expert parties, including commentators, government officers in different divisions and academic scholars, began to assess the Chinese car industry with regard to the intensified competition it was encountering. During this process, cost reduction was prioritised and regarded as the primary way for local car producers to differentiate themselves from their competitors. A new interpretation of what it meant to be competitive gained ground within FAW-VW. Cost reduction rapidly and abruptly became a focal issue in the overall management system. Cost reduction became linked with the firm's sustainable development and future survival, and came to be seen as the 'primary force of competition'.[31] A large portion of the company's profits relied on the effectiveness of its cost reduction procedures (FAW-VW Internal Newspaper August 2002).

Each individual employee was compelled to take the agenda of cost reduction seriously. Employees were required to consider any issues from the perspective of cost reduction and constant improvement of their working processes. Rules of calculations regarding cost savings were imposed. Hundreds of thousands of proposals for cost reduction were made by employees across all hierarchical

[30] It was witnessed in the joint venture that certain rules regarding the selection of suppliers in an attempt to maintain high quality standards were not followed. In one case, a state-owned mobile parts manufacturer was selected as a favour to the government, which in the end supplied the joint venture with sub-standard products.
[31] FAW-VW Internal Newspaper, 2002

levels and departments within the firm. These proposals were evaluated and adopted based on the estimated cost savings. Employees were then judged and rewarded based on the monetary values of the proposals they made. 'Star employees' who contributed to significant cost reduction were selected, their names publicised and given an award, on a monthly basis. FAW partner also strove to replace components originally imported from VW in Germany with components produced locally. Individual employees, factory workers and engineers in particular were asked to continuously innovate the design of specific parts and test their feasibility to enable and facilitate the localisation project. Blue-collar workers and managers at certain key divisions regarding the localisation project, such as the purchasing and product departments, had localisation quotas expressed in monetary terms imposed on them which they had to meet every year (FAW-VW Internal Newspaper 2002,2003). These quantitative devices were deployed to align individuals' actions with the cost reduction objective of the firm.

Complementary to the cost reduction project, FAW-VW implemented a new incentive and payment scheme as part of its larger plan of 'building a modernised and scientific management system' (FAW-VW Internal Newspaper January 26 2006). Under this new incentive system, the responsibilities of each division and individual positions were redefined. Working processes for each job were routinised and standardised. Different positions were then, according to their importance for the whole company, categorised into different bands, and individual remuneration determined. A new type of visibility and accountability was attached to an individual worker who would be identified and held responsible in the event of deficiencies being detected in performance relative to the formal measures. The new system attempted to construct a new governable space for individuals. It was designed in such a way that individuals would do their best to fulfil their responsibilities and reach the quota assigned

to their positions, no matter whether the focus was cost-related or quality-related.

However, such calculative technologies had multiple effects on employees. Employees did not fully engage with the new incentive system. Influenced by the ancient school of thinking, employees in the joint venture company followed certain protocols concerning interpersonal relationships and had a different attitude and philosophy pertaining to rules and norms, workplace and life values from the calculative selves in a neo-liberal context. This is further discussed in detail in the rest of the chapter.

3 Modes of governing

When the joint venture company was established in 1992, employees were transferred from the FAW group[32], a state-owned car manufacturing company, to the joint venture company. Afterwards with the development of the joint venture company, new recruits were added every year, giving rise to a diverse group of staff with a variety of educational backgrounds. From then on, attempts by the two partners to transform and modernise this group of employees never stopped. Managers from both partners sought to make employees more responsible and self-regulated. In a manager-level internal meeting, a VW manager commented:

> *Some employees including managers (FAW ones) do nothing but complaining. They always make excuses to blame on others. I have been to many world class factories where none of these ever happened. ... It is only the incompetent people who make excuses. I do not want to hear you complaining but to solve the problem on your own. ... Such 'doing nothing but complaining'*

[32] FAW group is still until today a state-owned company.

> *behaviours of the employees have to be put to an end.* (FAW-VW Internal Newspaper, January 25 1996)

Responding to such comments, the CEO of the joint venture company pointed out:

> *... the problem raised above is associated with the lack of an internal control system, a system that can clarify the responsibilities and put people to do their job on their own initiatives. ... Currently a lot of issues are related to different departments and it is usually difficult for employees to decide which division to turn to when a problem is encountered. ...* (FAW-VW Internal Newspaper, January 25 1996)

A plethora of technologies was deployed to direct the actions of FAW-VW employees under different programmes. Two major technologies are identified and discussed in the following section: 1. Award System and Career Path; 2. Re-organisation of business processes.

3.1 Award system and career path

A comprehensive evaluation, award and promotions system for employees in the joint venture company was put into place to align their behaviour with the objectives of the company, whether quality- or cost-oriented. This mechanism rendered employees governable in three steps: first, the objectives of the firm were standardised, quantified and in some cases (under the cost reduction programme) measured in monetary terms. A complicated process was followed to collect employees' quantitative performance data which was then analysed statistically, recorded and distributed to related parties within the firm. Second, based on the performance information collected for individual employees, moral and financial awards were distributed to the people who had performed well. Employees who did not manage to meet the quota or target assigned to

them were publicly criticised within the firm. In some cases, badly performing employees were suspended from their current position and put on probation. According to the regulations in place at FAW-VW, if an employee's competency did not meet the requirements of his/her position in the assessment mentioned above, he/she would be suspended from their current position for one year. If the employee's abilities still did not meet the job requirements after one year, they would be made redundant ('Management Procedures for Staff on Probation', FAW-VW Internal Document). Finally, promotions were promised to those who had a record of performing well. Meanwhile, employees who failed to perform well after being put on probation ran the risk of being made redundant.

In these three steps, an individual employee's behaviour was closely monitored, supervised and gauged against quantified standards and norms. The award and promotions system was designed in such a way that white and blue-collar workers would attend to the targets given to them and align their actions with the focus of the company if they wished to pursue their own professional development. Moreover, unlike most state-owned companies in China, employees of the joint venture company could be dismissed if they continuously underperformed. Such an apparatus, implemented to 'act on actions of people', attempted to render employees governable in such a way that they would automatically attend to their own deficiencies in meeting the quantified quality/cost standards and fulfil the quotas imposed on them under different firm- and national-level programmes. The next part of the chapter discusses how such a reward and promotions system influences employees in three steps.

3.1.1 Quantified standards and track of performance

Under the programmes for quality improvement (1992-2002) and cost reduction (from 2002 onward), different norms and values were upheld at the joint venture company. In order to make operable both programmes at different times, quality was standardised and quantified while the cost reduction objective was decomposed and distributed to individuals in key divisions. This section looks at how different quantified standards were applied to employees and how their quantitative performance was tracked and analysed under these two programmes respectively.

3.1.1.1 Under the 'Quality Improvement' programme

In the process of 'continuous quality improvement', a modern management technique, the concept of 'Quality Audit' was introduced to FAW-VW. This mechanism standardises and quantifies quality and keeps a record of quantified quality scores for each component and each individual worker. It does not only seek to render the notion of 'high quality' and 'continuous quality improvement' operable, but also to subject the quality control actions of employees at FAW-VW to close monitoring and supervision.

Quality Audit is defined by the joint venture company as follows:

> *Quality Audit is a systematic way of seeking quality inspection. It collects product quality condition information, identifies the conditions and reasons of defects, tracks the trend of quality parameters, follows actions to rectify defects, and eventually realises constant quality improvement. The ultimate purpose of Quality Audit is to examine and evaluate product quality standing from the position of the most demanding customers.* ('Standards for Quality Audit', FAW-VW Internal Document)

Quality Audit makes the notion of high quality operable by standardising and quantifying quality. It provides a quantitative benchmark against which products at different stages can be judged, analysed and compared. 'High quality' is no longer an empty slogan. Quality Audit quantifies quality by giving a quantitative score to each process performed by individual workers. It is organised as below:

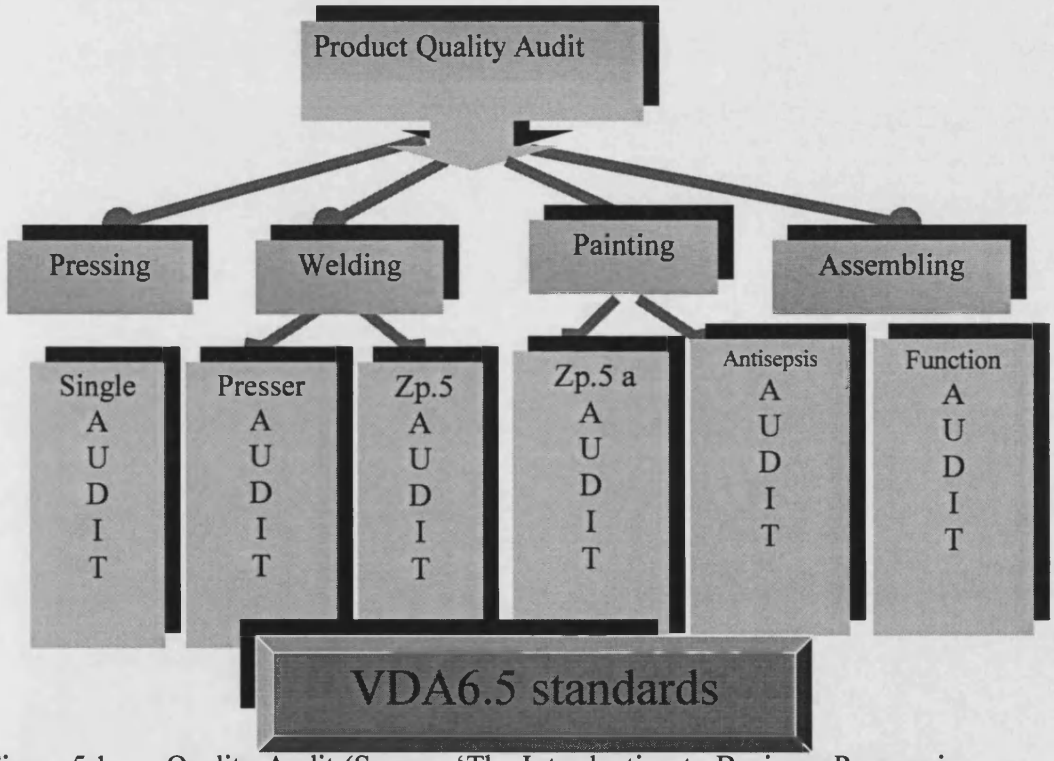


Figure 5.1: Quality Audit (Source: 'The Introduction to Business Process in the Whole Car Unit', FAW-VW Internal Document)

As can be seen from the chart in Figure 5.1, Quality Audit is embedded in the entire production process, which consists of four procedures: pressing, welding, painting and assembling. Workers' performances are monitored closely; a worker is identified and held responsible should any unsatisfactory audit score be given or any problem detected. Numerous internal documents on the

processes of Quality Audit are produced. Detailed instructions are given concerning what quality information to collect, how to analyse and record such information, and who such information should be delivered to. Quality Audit is designed to be a standardised process. The passages below are taken from one of the relevant documents:

> *Daily Audit performance evaluation*
> *Quality auditors need to carry out audit activities every day. On top of awarding an audit score, if a problem is discovered, "audit defect treatment notice' need to be filled in and related departments and responsible persons need to be informed. In the meantime, auditors should put the problem down in the 'quality information daily" for related person to explain and trace responsibilities.*

On a daily basis, the performance of workers is quantified in terms of audit scores. Any material problems that are recorded should then be detected. Weekly and monthly examinations and analysis of daily audit information are critical to the overall quality audit programme.

> *Weekly Quality Audit comments*
> *An audit review meeting is conducted every week concerning the evaluation of last week's quality audit results. Factory managers, directors of plant, and the relevant workshop instructors will discuss and analyse the defects and quality performance, summarise the feedback from the responsible departments, solve the problem, and evaluate its effectiveness In the meantime, relevant parties should inform the update on the ranking of quality audit scores within FAW-VW and VW group.*

> *Monthly data Presentation and Evaluation:*
> *After analysing statistically the audit defects and scores obtained over the past month, the overall quality status for the past month can be obtained. Such information is compared and contrasted with the target and the actual data for the past six months. Its trend of change should be observed and demonstrated to figure out if the quality continues to improve.*

> *The pivotal problems should be short-listed and the effectiveness of the measures to correct them is to be tracked and verified. The latest audit ranking should be illustrated and distributed to factory managers, the manager of the quality assurance department, workshop managers, and the relevant production line instructors in the form of "Quality Report Monthly".*

During the weekly and monthly reviews of quality information, audit scores of employees are aggregated and analysed statistically. The results are then compared to budgeted and past performance, and even the performance of other manufacturing plants within the VW group. Annual information of quality audit scores is used to reflect the overall performance and the ranking of FAW-VW.

> *Annual Evaluation*
> *Quality auditors from Quality Assurance Division should gather statistics on, analyse, evaluate and report on the overall annual quality status in the form of 'Quality Annual Report. At the same time the report should also reflect ranking of audit scores, thereby playing a guiding role in the future improvement of quality.*
> *The comprehensive quality evaluation results should be distributed to factory managers, the manager of the quality assurance department, and related personnel as well as the members of the board of management.* ("The Procedures for Analysing, Presenting and Evaluating Quality Audit data", FAW-VW Internal Document)

These extracts show that quantified quality information is gathered daily and analysed statistically for each manufacturing process and individual part (see Table 5.1 below). The trend of such quality information is then tracked (see Table 5.2 and Figure 5.2 below). A ranking of such audit scores is kept within FAW-VW across different production lines and also within the VW group.

Table 5.1: Monthly Quality Audit Information (February 2007) (Source: 'Pressteile-chang. (2007.2)', FAW-VW Internal Document)

Werk	Typen_Benennung	Bauteile_Benennung	x-quer	min	max	n	Ø A	Ø B
Changchun	Audi A6 Lim	Frontklappe	1.3	1.2	1.4	3	0.8	1.1
Changchun	Audi A6 Lim	Tür hi li	1.7	1.5	1.9	3	0.5	0.7
Changchun	Audi A6 Lim	Tür hi re	1.2	1.1	1.4	4	0.3	1.0

Table 5.2: Statistical Analysis of Quality Audit Information (Source: 'Analysis of Quality Audit Information', FAW-VW Internal Document)

Seitenteil li					
	min	max	Ziel	x-quer	
Jan	1.6	2.4	1.5	2.0	
Feb	1.6	2.0	1.5	1.7	
KW.9			1.5	2.0	
10			1.5	2.3	
11			1.5	2.2	
12			1.5	2.0	
Mar	2.0	2.3	1.5	2.1	

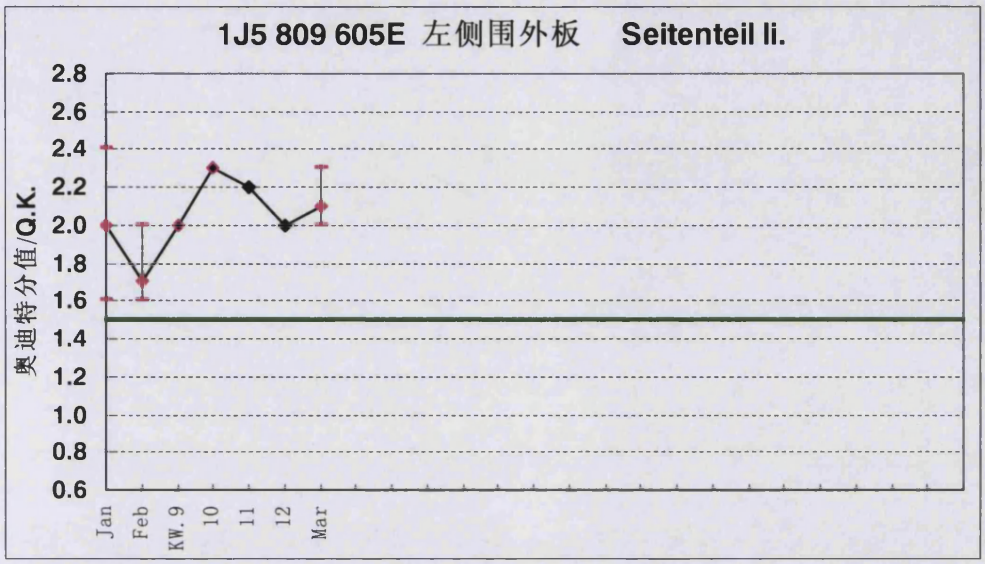


Figure 5.2: Trend in Quality Audit Scores (Source: 'Analysis of Quality Audit Information', FAW-VW Internal Document)[33]

By the use of such a calculative device, individuals are subjected to observation, supervision and administration. The quality of the products they produce is constantly monitored. They will be identified and held responsible should they fail to meet the standards. Together with awards presented, or punishments imposed, on people, such quantification and standardisation of quality attempts to encourage employees to be self-regulated individuals.

Besides following standardised manufacturing processes, employees are also required to submit creative proposals to achieve constant quality improvement, proposals including innovation of production tools, invention of specific manufacturing techniques and the change of production procedures. The number of quality improvement proposals submitted and implemented is used as a benchmark to compare performance within FAW-VW, as well as with the

[33] This chapter has quoted several similar figures to show how quantitative scores of quality are tracked and analysed (see also p.166). Different figures are based on information on different parts of the final cars.

VW group, and to evaluate the performance of individuals, teams and divisions. One of the stories described in the joint venture company's internal newspaper is as follows:

> *...in order to improve product quality in the Engine Plant, there is an urgent need to measure accurately the dimensional parameters of a number of pistons. ... the engineer in precise measurement room Dong Ning, and the manufacturing squad leader Dahai Zhou proposed to make the tool themselves. They spent 20 days carefully designing a jig which is able to measure accurately with high precision. ... This new tool highly improves the production quality. ...* (FAW-VW Internal Newspaper, May 30 2000)

Another story reports on a company meeting held to summarise its semi-annual progress in a quality improvement project. Those who had performed well, both individuals and subunits, were rewarded:

> *...in the first half of this year, the joint venture collected 7273 items of improvement proposals, increased by 75% from last year. 3442 items were adopted, raised by 119%, out of which 2055 items were implemented increased by 171% compared with the case of last year. Through such activities, the quality awareness of workers is further strengthened. The high priority attached by the leaders of the company to the project is pivotal to its success. ... More than 2000 items of suggestions out of 7000 items proposed were implemented within half a year – this is very impressive even within the VW group. ...The CEO of FAW-VW, Mr Lu, remarked "... only constant quality improvement can keep the strong and long-lasting vitality of the firm. ..."* (FAW-VW Internal Newspaper, July 20 2000)

Overall, the mechanisms described above, combined with the award and punishment system, seek to bind employees in the joint venture company with rules and standards regarding quality improvements and thereby influence individuals' activities. Under such a system, employees' performances are constantly monitored, quantified and gauged against the related quality

standards put forward by the joint venture company. They are required to submit quality enhancement proposals, carry out their job responsibilities strictly according to the standardised procedures, and embed the notion of quality in their daily operations.

3.1.1.2 The 'Cost Containment' programme

In 2002, China rejoined the WTO. The Chinese car industry was considered problematic with regard to intensified competition. Cost reduction was prioritised and regarded by experts, including commentators, government officers in different divisions and academic scholars, as the primary way for local car producers to meet their competition. These discussions led to changes being made to the core strategy of FAW-VW by the management of the FAW partner. Cost reduction replaced quality as the central concern. A series of calculative technologies were implemented to bind individual employees with new norms and rules concerning cost containment. They were deployed to subject individuals to supervision and evaluation in the light of cost reduction. In this way, a new kind of accountability was ascribed to employees.

All employees in the firm were encouraged to make cost reduction proposals based on their expertise. Product department engineers could suggest changes concerning the design and material of cars so as to lower costs. Plant engineers and employees could make suggestions about operation procedures, techniques and production tools. The manufacturing department contributed to cost reduction by optimising production procedures. Any such proposals were evaluated and ranked in terms of the potential for cost savings and linked to the award system. The best proposals for cost reduction were selected and rewarded on an annual basis. Moreover, an annual target of cost reduction was imposed on each division, and in some cases on each individual employee. This was

associated with the evaluation system of the firm as a whole. The performance was publicised throughout the company and compared both currently across different departments and historically within one department. The following quotation shows how individual employees are caught up in the new norms of cost reduction:

> *... in order to better implement the ideology of "Cost is the first signal", the Assembly plant held a meeting to mark the launch of "making proposals to reduce costs" activities on May 5th 2003. ... The leaders of the plant illustrated the monthly plan for the project and call for one piece of high quality and feasible cost reduction proposal from each individual. ...* (FAW-VW Internal Newspaper, May 20 2003)

Information on the potential cost savings suggested in the proposals was collected and related calculations published as follows:

> *... in 2003, the whole company is involved in proposing cost reduction suggestions. 40062 items of proposals were made in total, 3.71 items per person on average, out which 15923 pieces were implemented, 1.48 items per person. These proposals saved 162million RMB. ...* (FAW-VW Internal Newspaper, February 10 2004)

Besides the "cost reduction proposal project", FAW-VW also allocates a cost reduction quota to the manufacturing division, production plants, the purchasing division and other departments that are cost related. The progress made towards fulfilling such cost reduction quotas is then publicised across the firm:

> *From this year, each division of the company has reached satisfactory effects of cost reduction under the working guideline of "Cost is the first signal" put forward by the Board of Management. Manufacturing department's annual cost reduction target is 54million RMB. By April they have saved 18.7million RMB, achieving 34.62% of its annual target. ...The*

> *annual cost reduction quota for the Production Division is 188 million RMB. By April, they have saved 51million RMB by optimizing production costs. By May their completion percentage of the quota will reach 50%, expecting to exceed the annual quota.* ... (FAW-VW Internal Newspaper, May 28 2004)

From 2003 a project of 'production cost optimisation' was undertaken at the Product Department in FAW-VW to cut costs under the slogan of 'Cost is the first signal'. The following excerpts from an article in the in-house newspaper summarises the effects of such a project in 2004:

> *It [production cost optimization project] reduces product costs by making changes to the product design on the premise of satisfying customers' expectation on product function, quality, capability and appearance. ... Such an activity does not only bring into the company huge economic benefits but also improves the overall ability of the product development team and implants the notion of cost optimization in our staff's mind.* (FAW-VW Internal Newspaper, February 20 2005)

After the importance of the project for cost reduction proposals was stressed, the article continued to discuss the effects of such a project. Cost reduction quotas are allocated to each department and actual performance is gauged against the objectives:

> *... [the production division] investigated 294 proposals of production cost optimization. The investigation involves technology analysis, economic analysis, market feasibility research and product authorization. 45 proposals were put into practice in 2004, composing 15% of the total number. .. Under the support of the managers of all levels and the guidance of the project manager, in 2004, the product division achieved overall cost reduction of 242 million RMB, 28.72% more than the quota assigned to them in the beginning of the year* ... (FAW-VW Internal Newspaper, February 20 2005)

The 'production cost optimisation' project required employees to propose changes to product design in order to fulfil cost reduction quotas while at the

same time maintaining the customers' expectations for fully functioning cars. Employees were subject to administration and evaluation based on the potential cost savings of their proposals.

FAW-VW also initiated a campaign in 2004 called 'facing the challenge, lowering cost by 100 RMB', which called on every employee to save 100 RMB by making proposals based on their expertise. Such a campaign turned the company's slogan 'Cost is the first signal' into the tangible objective of 'saving 100 RMB' per individual employee. The firm held a meeting to hand out awards to leading teams in this campaign. The excerpt below is from an article reporting the meeting:

> *In the meeting, the monitor of the production group for Bora's left front door, Yunfeng Chu, introduced his experience in cost saving. The production team is responsible for the production of left front doors for Bora and Golf. Under the campaign in 2004, the team saved 120,000 RMB in total and 10,000 RMB on average per person by its full involvement in making improvement proposals.* ... (FAW-VW Internal Newspaper, January 20 2005)

As can be seen, under such a calculative technology, individuals are given a central place in the programme to reduce cost. High visibility and accountability are ascribed to individual employees.

> *Since the launch of the campaign of "acting the challenge, lowering cost by 100 RMB" at the beginning of the year [2004], employees at all departments at the firm get into the swing of cost reduction activities based on one's own position, turning the guide line of "Cost is the first signal" into "first actions". The effects were quite impressive ...*
>
> *... Kaiyu Wang, the section chief of the Manufacturing Technology Section discovered that rear-view mirror can be attached directly to the front window to save two parts which were used to suspend the rear-view mirror for cars of 2004*

model. Such a proposal could save 560,000 RMB per year for the company.

Employees are made visible and accountable for the cost savings they achieve. They are evaluated and ranked in terms of the monetary contributions they make to the company's cost reduction objective. Star employees are selected and awarded financially. In this way, good performances are made public and encouraged.

> *An ordinary worker at the engine production line, Maojun Li, engaged in waste recycling in his daily work and saved the company 100,000 RMB. Workers in the Assembly Workshop are involved in energy saving activities. Take electricity for example, each worker manages to save one unit of electricity – the whole plant is able to cut electricity expenses by 32,850RMB. ... Welding Division saved the company more than 200,000 RMB by improving the mode of maintenance. ... All workers at the firm are taking cost reduction as their own responsibility and turning the slogan into their self-conscious activities ...* (FAW-VW Internal Newspaper, March 30 2005)

Another technology deployed by the FAW partner in its attempt to reduce cost was the localisation of parts originally imported, such parts now being replaced with parts produced in China. FAW-VW does not produce all the different parts required; instead, it buys most of the components from its suppliers and then assembles them in its factory. The VW partner, when introducing a model into the joint venture company, will clearly state which parts must be purchased from the VW Group in Germany and which parts can be purchased from FAW suppliers in China. Apparently the prices charged by Chinese suppliers are much lower than VW prices. Attempts to increase the percentage of localised components go back to the initial establishment of FAW-VW. In the past, localisation had been done with the purpose of conforming to government

regulations.[34] Since around 2003, such localisation attempts have been referred to as 'crazy localisation to achieve cost reduction' [35] (FAW-VW Internal Newspaper, March 2003).

According to an engineer from the Procurement Department:

> *For CKD parts [components that must be imported from German VW], VW will purchase them from their suppliers and sell them to us for twice the price they pay. In the past we've tried to purchase those parts directly from VW's suppliers via their Chinese representatives. But now this is forbidden. ... Our purchasing team will have localisation targets each year to increase the percentage of components purchased from Chinese partners.*

Managers at FAW-VW seek to localise key parts and increase the localisation rate overall.

> *Under the "Crazy Localisation Project", FAW-VW strives to increase both the width and depth of localisation. "Localise all parts that can be localised". We need to increase the localisation rate from 60% to 80% for some models. ... Some core parts as well as special crafts and materials are also on schedule to be localised...* (FAW-VW Internal Newspaper, June 2005)

The quantitative techniques described above, i.e., calculations of quality audit scores, cost reduction targets and the per capita contribution to the firm's objective, best served their goal when combined with the firm's award incentive system. Calculative technologies first set out a web of norms and standards, within which employees were enmeshed, and together with the firm's incentive system, influenced the activities of individuals. Employees'

[34] The 'Automobile Industrial Policy' issued by the Chinese Government in 1994 stipulated that in order to avoid a whole-car tariff, cars produced in China had to achieve a localisation rate of 60%.

[35] For more detailed information on this project, please refer to section 3.3.2 in Chapter 3, p.90

performances in terms of quality enhancement and cost reduction were quantified. Such quantitative scores of quality and cost reduction were ranked within and across the related departments. Quality improvement and cost reduction quotas were allocated to each department and then segmented into group targets. An individual's contribution to the overall realisation of his/her group's targets was clarified and publicised. Employees were made accountable to their managers for how well they contributed to the group's quality and cost related targets. Moreover, as shown in the next section, their contributions to the firm's quality enhancement and cost reduction objectives were connected with their income and career development. Behaviours that were in line with the norms (cost and quality) and rules set out by FAW-VW were praised, awarded, and encouraged while employees who performed badly were criticised. Overall, the control mechanisms attempted to influence the behaviour of employees and embed the notions of quality and cost in the daily operations. The next section of this chapter focuses on how the firm's award system was linked with the multiple calculative devices in order to make individuals governable.

3.1.2 Award system as a control technique

At FAW-VW, honours were awarded to employees who exceeded the quotas assigned to them under the cost or quality programmes and made contributions to the realisation of the firm's objectives. Such honours included being identified with 'the best ten employees of the year', '"the best innovation plan', 'the best cost saving team', 'the best quality improvement fighter', etc. These honours were publicised within the joint venture company via internal communication mechanisms. Sometimes, provincial or national awards were presented to those employees who had best presented and internalised the standards and norms set by the firm.

The quantitative calculations used to evaluate individuals' performances were linked to their bonuses. Employees who successfully met the quantified standards (both quality and cost related) were rewarded financially. Also, if an employee won two honorary titles, he or she was given an extra bonus.

Under the quality improvement programme, employees received a higher bonus if their activities fell into the 'good practice' categories laid down by managers according to the standards of quality or cost. The quotation below is taken from an article in the firm's newspaper describing the policy at one of the production plants at FAW-VW whose bonus allocation schedule was related to workers' quality enhancement activities.

> *...each worker is required to keep a diary to record the difficulties encountered during the manufacturing processes and the methods used to tackle the problem. The diaries should be submitted to and evaluated by the monitor every Monday morning. The good ones will be praised while the bad ones will be criticised and helped. This will be one of the parameters based on which their monthly bonuses will be decided. ...*
> (FAW-VW Internal Newspaper, February 29 2000)

The joint venture company has established certain rules regarding the allocation of bonuses for employees. An internal company document called 'the Guided Method for the Distribution of Bonuses' stipulates that the bonus allocation should be based on the quantitative scores employees have gained each month. Such scores are calculated based on the employee's performance concerning quality improvement, capability, efficiency and so on. Also, a 'special contribution made to production processes, management, and technological innovation' was rewarded.

The cost reduction proposals made by the employees were also linked to employee bonuses. The monetary effects of the proposals submitted by the

employees were calculated and ranked within each department as well as for the joint venture company as a whole. The most effective proposals, i.e., those that promised to make largest cost savings, are selected, and the employees who proposed them are awarded bonuses.

One of the FAW-VW managers, when commenting on the success of the cost reduction proposal project, described how employees who made the best suggestions were rewarded:

> *... [the success of the "cost reduction proposal" project] also relies on the incentive system. The rewards for good proposals are multiple: the highest level of monetary award is 10,000 RMB which has been attributed to more than ten people; there is also company supported trips for employees to many tourist sites...* (FAW-VW Internal Newspaper, June 20 2005)

In the 'Reward Section' of FAW-VW's internal document 'Standards for Awarding and Punishing Employees', awards made to employees were linked to the contributions they made to the quality improvement and cost reduction projects.

> *Financial awards should be allocated to employees should they satisfy one of the following conditions:*
>
> *Employees make contributions to production quality improvement, product development, technique innovation and etc.*
>
> *Employees make contribution to cost reduction, savings of capital, material, energy and so on.* ('Standards for Awarding and Punishing Employees', FAW-VW Internal Document)

Such a reward system attempts to place individuals in the centre of the firm's quality improvement or cost reduction programme. Together with calculative technologies, the award system attempts to render individuals visible and

accountable. Moreover, from 2006 onwards, FAW-VW has deployed a new incentive system on the advice of several consulting firms. The new system completely reforms the original payment structure and subjects individuals to new forms of visibility.

New incentive system

Under the new incentive system, all divisions at FAW-VW are categorised into eight bands according to the importance of the positions, and each position in every department is assigned to a given level within the band of its division. For example, a junior engineer position in the Product Division could be categorised as 9.3, i.e., level 3 in band 9. Employees were paid according to their categories. An income range is specified for individual positions in different departments (FAW-VW Internal Newspaper, July14 2006).

The new system ascribes a new form of visibility and accountability to employees. A junior engineer in the product division was graded a '9.3' under the new payment system. It was made clear to individuals that their income level was linked to the importance of their positions. If they wanted to get the salary paid for that position increased, they had to contribute more to the firm and be promoted to a more important position.

The following quotation is taken form a newspaper article which gives an introduction to the new award system to employees and encourages them to work harder:

> *... the primary objective of the changes to the current payment system is to have the payments reflect the value of the positions and the requirements of the positions ...the company's new incentive system focuses on building a performance system which will decompose business objectives into the targets on different levels and make sure that everyone has a target and*

> *produces good performance. The changes made to the salary structures reflect the company's value of 'pay for the position and pay for performance'. ... part of the employees should not only focus on the changes of their salaries, but focus on how to improve their abilities, create values and make contributions for the firm...* (FAW-VW Internal Newspaper, July 14 2006)

The above quotation shows that individuals were tied to their positions in this new system of visibility and accountability. If they wanted to increase their base salaries by increasing their importance in the firm, they had to climb the promotions ladder, which is discussed in more detail in the next section.

To summarise, calculative devices, by quantifying the performance of employees as well as the standards and norms imposed on them, render performance measurable and able to be ranked, thus making it possible to link financial rewards to these calculations. Such a mechanism attempts to enmesh individuals within a web of rules and standards (quality or cost related), motivating individuals to closely attend to their own activities and value any reward, be it an honour or a financial reward.

3.1.3 Career path as the centre of the promotion system

The joint venture company has a calculative performance evaluation system. It attributes a quantitative score to each employee, based on which employees are ranked and bonuses paid. The numerical score is also the criterion for the managers to decide whom to promote, and what adjustments to make to staff arrangements ('Employees' Annual Evaluation Process', FAW-VW Internal Document).

The formula for the calculation of such a quantitative score was as follows:

$M=(0.8\times M1)+(0.2\times M2)+N$ (out of 100)

M is the formula by which the evaluation of the employee was scored. M1 refers to the evaluation of the competency of the employee, which comprised the evaluations by the employee's senior (direct leader of the employee), co-workers, juniors and internal users (the employee's counterpart in the firm who requested the services of the employee).

M2 refers to the evaluation of the quality of the employee. M2 was given strictly in accord with the company's regulations. They were decided by the employee's senior based on an assessment of the facts which included employee's educational background, past working experience, professional qualifications and so on.

N refers to a leader-weighted score, which is the adjustment made by the department's senior manager to the overall evaluation (M1+M2) in an attempt to achieve a lateral balance within the whole department. Leader-weighted (N) $=\pm 1,2,3,\ldots 10$.

The joint venture company had detailed guidelines concerning the calculation of M1 and M2. Employee performance was converted into a series of numbers with their abilities and potential quantified according to certain norms and standards.

Under this evaluation system, decisions made about the promotion and bonus allocation of the employees were made transparent.

The joint venture company designs career paths for both blue- and white collar employees from the start of their employment. It is made clear to them what awaits them should they perform well according to the rules and norms laid down by the firm.

Figure 5.3 shows how an ordinary college graduate can grow into an international leader within 20 years:

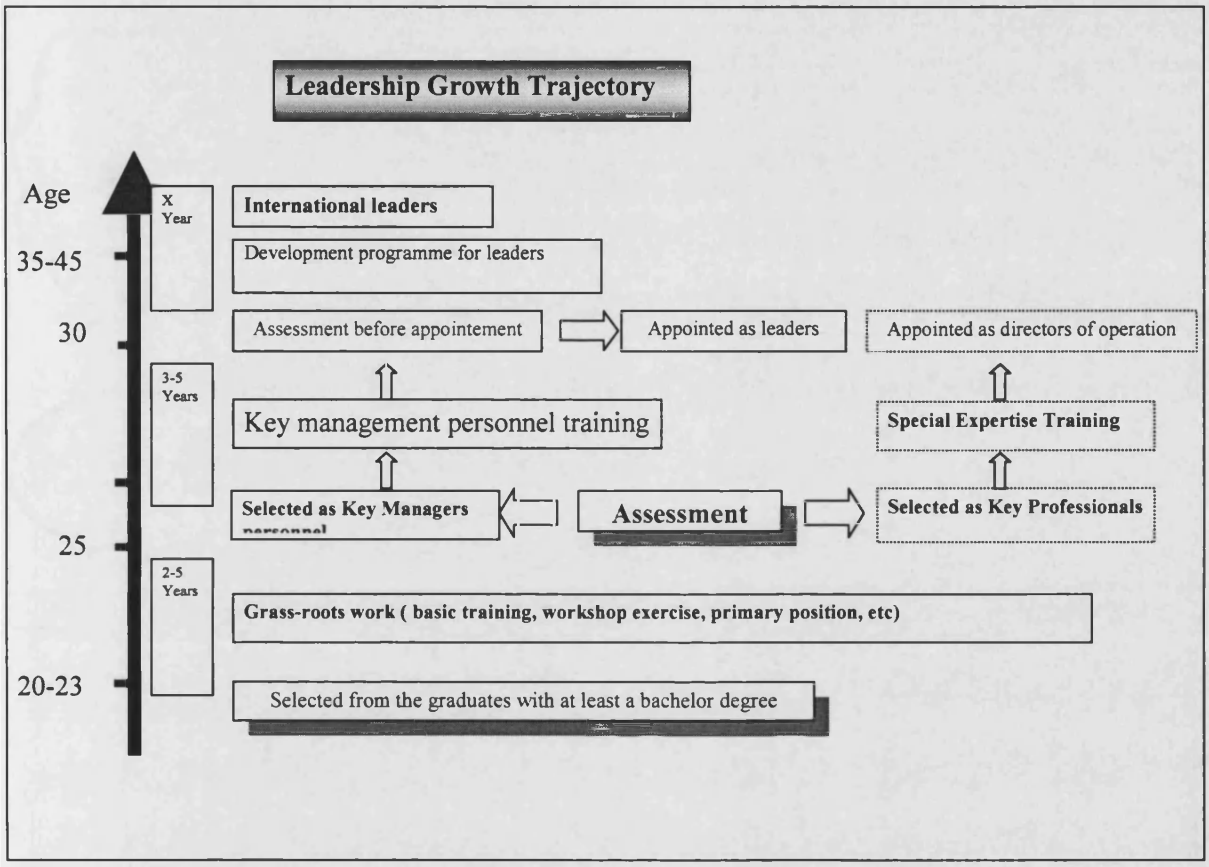


Figure 5.3: Leadership Growth Trajectory (Source: "The Introduction to the Business Processes of HR Department", FAW-VW Internal Document)

Figure 5.4 demonstrates what career development a blue-collar worker can achieve:

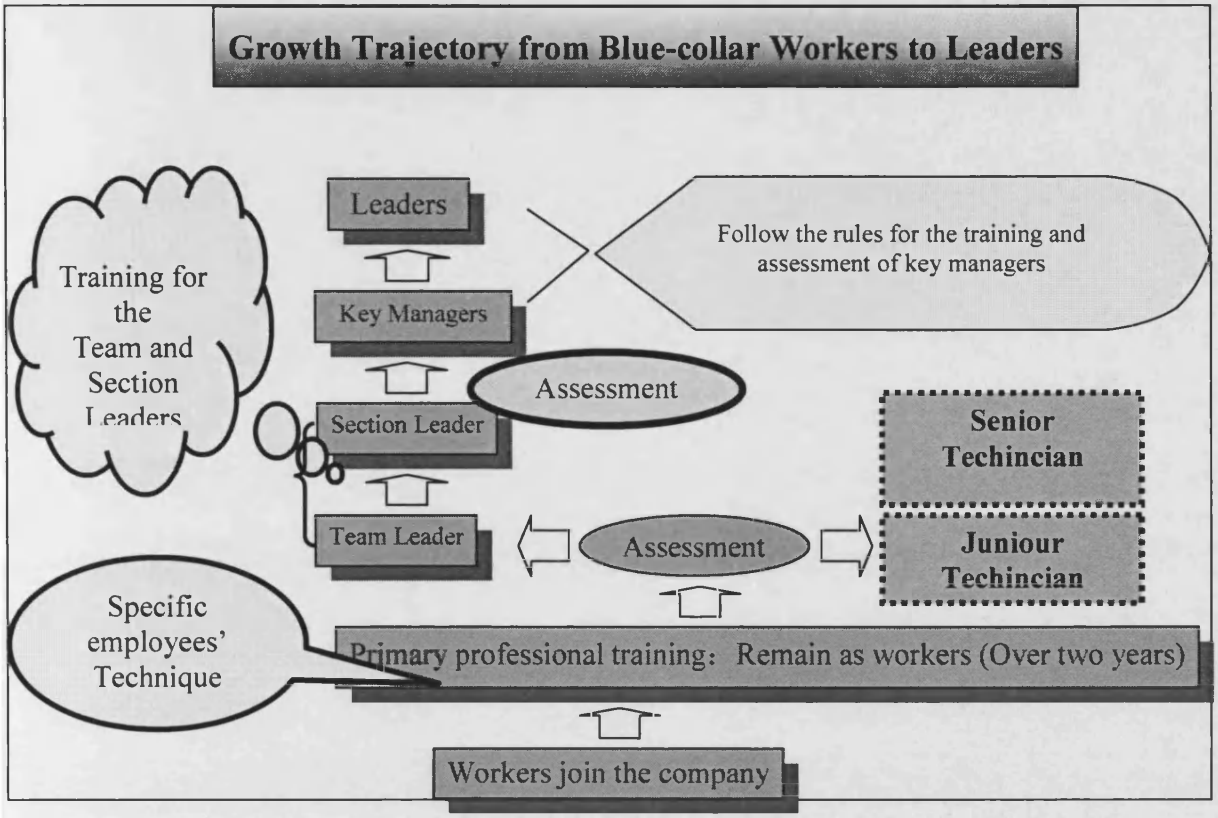


Figure 5.4: Growth Trajectory from Workers to Leaders (Source: 'The Introduction to Business Processes for HR Department', FAW-VW Internal Document)

Besides making clear how to climb the ladder in the company, it was also made clear to employees that their positions were not secure for the rest of their lives (a common situation for most state-owned companies) – there existed an 'out' system, too. According to the regulations in place at FAW-VW, if an employee's competency did not meet the requirements of his/her position in the assessment mentioned above, he/she would be suspended from their current position for one year. If the employee's abilities still do not meet the job requirements after one year, they were to be made redundant ('Management Procedures for Staff on Probation', FAW-VW Internal Document).

Therefore, for employees at FAW-VW, the career paths and the 'out' system illustrated what awaited them in the future given different levels of performance, while the performance evaluation system made it clear what it took for employees to advance their careers. This chain of calculative devices formed a sophisticated mechanism, which surrounded employees with norms and rules and attempted to align the actions of individuals with the objectives of the firm. It was made clear that employees' career development, bonuses, base salaries and the security of their jobs, all depended on how well they attended to their activities, to follow the rules and standards set down by the firm, and contribute to the realisation of the norms attached under different national and firm level programmes.

3.2 Reorganisation of business process

A second mechanism to render individuals governable, and which this chapter considers, is the project to reorganise the business processes in FAW-VW.

In 2000 FAW-VW started a series of actions to reorganise the operational processes at the firm. It redefined the core activities in each division and clarified the responsibilities for each position. For every key job, a detailed flow chart was provided to demonstrate the processes performed by the job, the person and divisions responsible, the records to be kept and the actions to be taken under different scenarios. The organisation chart shown as Figure 5.5 is taken from the internal documents of FAW-VW. The chart in Figure 5.5 is a flow chart showing the quality control activities carried out for purchased parts.

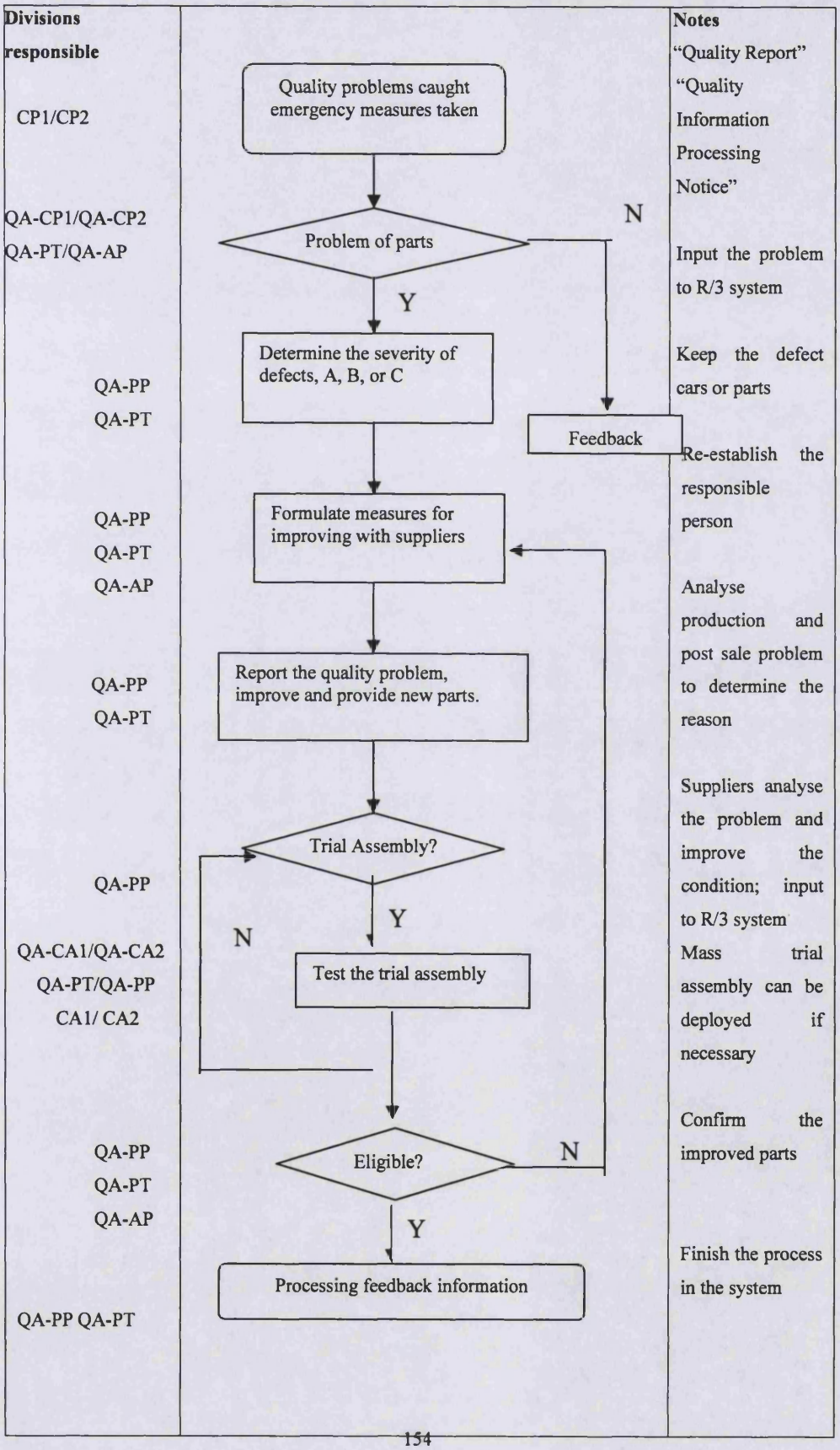

Divisions responsible
Notes
CP1/CP2
Quality problems caught emergency measures taken
"Quality Report" "Quality Information Processing Notice"
QA-CP1/QA-CP2
QA-PT/QA-AP
Problem of parts
N
Y
Input the problem to R/3 system
Determine the severity of defects, A, B, or C
Keep the defect cars or parts
QA-PP
QA-PT
Feedback
Re-establish the responsible person
QA-PP
QA-PT
QA-AP
Formulate measures for improving with suppliers
Analyse production and post sale problem to determine the reason
QA-PP
QA-PT
Report the quality problem, improve and provide new parts.
Suppliers analyse the problem and improve the condition; input to R/3 system
Trial Assembly?
QA-PP
Y
N
QA-CA1/QA-CA2
QA-PT/QA-PP
CA1/ CA2
Test the trial assembly
Mass trial assembly can be deployed if necessary
Confirm the improved parts
QA-PP
QA-PT
QA-AP
Eligible?
N
Y
Finish the process in the system
Processing feedback information
QA-PP QA-PT

Figure 5.5: Quality Audit Process for Purchased Parts (Source: 'Quality Audit for Purchased Parts', FAW-VW Internal Document)

Under this project, an individual's job activities were clearly defined and routinised. Employees were made more accountable for their actions, with their tasks and responsibilities being made more transparent. As shown in the flow charts, it was made clear to employees which divisions and positions were responsible for each step in their work and what actions to take if they detected a problem. Therefore, should a mistake be made, the person responsible is able to be identified and held responsible. Employees' mistakes were recorded and documented in the company's database, influencing their evaluations and eventually affecting their income and career development. They were allowed little room for mistakes.

The following story is taken from a speech made by a worker at the Body Shop (the paint plant of the factory) in a firm-wide speech contest:

> *That was when I just joined the company. One day during the busy shift I stretched my body, took my hat off and scratched my hair. This no-more-than-twenty-second movement caught the attention of my team leader who rushed over and looked at me seriously: "how can you take off your hat at this time?" I was shocked and confused. I didn't think this was worth all the fuss. He looked around and picked something from the ground. I looked closely and found that he was holding a hair. He said to me strictly: "You don't think that scratching your hair is a big deal. But you are so close to the painting workshop. This hair can influence the quality of a car! The rework could cost our firm several hundreds of RMB.* ... (FAW-VW Internal Newspaper, July 30 2000)

This story shows that workers were expected to perform their work activities in a strictly professional manner – nothing personal would be tolerated (not even anything as trivial as scratching one's head). Individuals were considered to be

machines performing specified jobs and were left with little room for personal activities. Under such a system, employees were expected to attend to their own deficiencies and to carry out their jobs strictly according to the standards laid down. Accountability and transparency were part of the system.

So far this chapter has focused on the mechanisms through which calculative devices were used in an attempt to make the employees at FAW-VW governable. This is a well-covered topic in the literature of governmentality (Foucault 1991a; Miller 1991; Miller 2004; Miller and O'Leary 1987; Miller and O'Leary 1994a; Miller and Rose 1990). However, little has been researched concerning the actual effects on the individuals of such calculative technologies. Are the rules and norms imposed on individuals deeply coupled in their operational activities or do individuals only symbolically follow certain protocols? Are the evaluation standards laid down by the firm deployed strictly or are there informal standards and rules used? The next section of this chapter looks into these questions.

4 The mechanism by which calculative devices influence employees at FAW-VW

As illustrated in the previous section, an array of calculative devices was put in place in an attempt to align the actions of FAW-VW's employees with the firm's objectives. Norms (either quality- or cost-related) were standardised, quantified, monetarised and converted into performance indicators against which employees were evaluated. The information about quantitative performance indicators (such as quality audit scores, money saved by innovation proposals, monetary contributions by the localisation of certain components) was collected, compared, analysed statistically, stored and distributed to related parties. These analyses, reports and calculations rendered visible any departure from the norms of target performance, and together with

other mechanisms discussed above, they equipped the employees with the knowledge needed to reach the bright future portrayed for them if they continued to perform well.

In a neo-liberal setting, individuals (problem teenagers, factory workers or the national population as a whole) are governed by calculative technologies through their individualistic 'self-steering' and 'self-regulating' capacities (Burchell 1996; Heelas and Morris 1992; Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and Rose 1988; Miller and Rose 1990). These devices seek to direct, shape, channel, guide and control the conduct of individuals so as to align them with certain political agendas through exploiting people's aspirations of self-fulfilment and self-realisation. Calculations render reality amendable to political programming and ascribe a form of transparency and accountability to individuals, based on which people seek to govern others and themselves. Calculative selves brought into existence by such calculations enjoy the freedom and autonomy bestowed on them by choosing the options that would improve their well-being and enable them to achieve a state of self-improvement. By doing so, they direct their own activities, and those of others, to a desirable state of political forces, whether this be economic efficiency, social stability, balanced development of the national economy, or others (McKinlay 1998; Miller 2004; Miller and O'Leary 1987; Rose 1988; Rose 1991; Rose and Miller 1992; Sigley 1996). Employees are assumed to figure out the best way to fulfil their aspirations of self-fulfilment and self-realisation, i.e., to carry out their jobs as dictated to ensure the quality of the products they process, to innovate their working procedures to cut costs, to invent new tools to improve quality, to climb the career ladder and become 'master of the factory'.

However, it is contended that at FAW-VW, individuals were not encouraged by calculative devices to perform in a manner which made them different from others in a quest for a more fulfilled self or a brighter future, but it was rather

their 'respect' for the norms laid down by the firm that leads to their tendency to behave like everyone else. Because the employees are embedded in a different institutional, social and political context from the neo-liberal employee documented in the literature, the FAW-VW employee to some extent lacks entrepreneurial and industrial spirit, and the will to take control of their own lives. In dynastic China, with unlimited authority resting with the emperor, obedience and submissiveness had long been an important element of Chinese culture. After the establishment of the People's Republic of China, with its centrally planned economy, individuals did not need to think, choose and plan for themselves. They simply had to obey orders and follow the track designed for them by the government. Students were taught to be subordinate to authority from their school days and onward. After completing their education, jobs would be assigned to them, their personal lives planned and their family taken care of. Later, with the transition to a market economy, some people became confused and felt lost when faced with multiple choices as they then had nobody to tell them what to do. (Liew 1997; Su 2008; Wang 2010)

Similar transitions can be found in FAW-VW. Before the complex mechanism was deployed (the new incentive system, the career path and other devices mentioned above), orders were given to employees, and disciplinary measures were used if orders were not obeyed. This simple 'order-obey' cycle has now been replaced by the sophisticated mechanism of calculative devices. Within the web of quantitative technologies, choices were open to individuals who were not used to having any and they may not have preferred such freedom. It was difficult for most of the employees to change their mentality in order to follow the calculations made, and visualise the link between them and their performance and future development.

Employees at FAW-VW and their conduct, were influenced and institutionalised by their heritage of ancient Chinese thought and philosophy

which, until today, still shapes Chinese people's perceptions of the world and their ways of acting. Diverse schools of thought in ancient China have left their traces on Chinese people today and affected their lives in different ways and to different extents. A brand of philosophy is particularly influential in this context, known as 'the doctrine of the mean' or 'the middle course' (Ding 2009; Feng 2001; Li 2000; Wang and Ma 2008; Wei 2009; Yu 2008; Zhang 2008; Zhang 2009; Zhang, et al. 2008; Zheng 2008).

4.1 Philosophy and culture

The doctrine of the mean first developed as an embodiment of the spirit of kingcraft with the meaning of 'righteous', 'middle path', 'impartial' and 'constant way' in the primitive society of China from the 2nd century BC. It was conceived and upheld as the proper attitude toward the use of the imperial power bestowed on the emperors – be righteous and impartial (Wei, 2000). This was further developed by Confucius and his apprentice into an ethical standard and a form of philosophy. Confucius's thoughts were documented in *The Analects*, where he talks about a temporary and relative state in the development of things, summarised as 'the middle course' or 'the doctrine of the mean'. The doctrine of the mean is conceived as the highest form of morality, whereas the middle course means that people's temperaments, styles and virtues should not indulge in one or other of opposing sides so that both sides tie each other down and complement each other. The doctrine of the mean propounds compromise and reconciliation. These ideas are put in *The Analects* as follows:

> *Perfect is the virtue which is according to the doctrine of the mean! Rare have they long been among the people, who practise it.*

> *I know how it is that the path of the mean is not walked in. The knowing go beyond it, and the stupid do not come up to it. I know how it is that the path of the Mean is not understood: the men of talents and virtue go beyond it, and the worthless do not come up to it.* ('The Analects')

The doctrine of the mean is thus construed as a feudal code of conduct for the literate elites of the day and embodies a pursuit of the highest ethical realm. To conform to it, people were to perform in a certain way so that their words and conduct were consistent with the idea of moderation, and that their words and actions would not be considered as 'deficient' or 'excessive'. To avoid being considered as 'deficient', people's words and actions were required to meet with the ethical code of conduct prevalent in feudalist China or dictated in the Book of Rites[36] (Zhang 2009), while being against 'excessive' requires that people's words and actions do not violate or go beyond the specifications of the ethical code. This means that people must exercise self-restraint or even make sacrifices in order to bring their words and conduct into line with the extensive specifications and requirements of social protocols (Ding 2009; Huang 2008; Wang and Ma 2008; Yu 2008; Zhang 2009; Zhang, et al. 2008; Zheng 2008). Confucianism in particular argues that one should 'keep the middle course by destroying one's human desires' (Wei 2009).

As ethical standard and philosophy, the doctrine of the mean has been given significant importance since the Han Dynasty and so became separated from *The Analects* and an independent set of doctrines for scholar-bureaucrats (intellectuals) in all subsequent dynasties. It was carried on by, and institutionalised through, the education of the scholar-bureaucrat class in China's feudal society. *The Analects* was listed as one of the mandatory

[36] The Book of Rites ("Collection of Treatises on the Rules of Propriety and Ceremonial Usages") is an extensive collection of ritual matters of the Zhou Dynasty. It dictates certain ways of behaving for civilised person in all types of social scenario, ranging from one's coming of age to what protocols to follow in the case of a death in the family.

textbooks and a test text for literate people who yearned to join the ruling class (Zhang 2009; Zheng 2008).

People who followed the ethical code of conduct and stayed 'in the middle' were considered civilised while those who did not were considered uncivilised, denied advancement and expelled from society. As a doctrine that was opposed to being 'excessive' and propounded the notion of 'deficient', it rendered individuals extremely cautious about their words and conduct, fearing any deviation from the majority. This cautious psychological state of mind on the one hand, made individuals follow norms and avoid deviating from the conduct of others, while on the other hand it restrained individuals' creativity and their innovative and aggressive spirit. In this social environment of feudal China, innovation and creativity were considered 'excessive' and different from the norm, and individuals who had shown any trace of innovation and creativity were subject to denial and expulsion (Yu 2008; Zhang 2008; Zhang 2009; Zhang, et al. 2008).

Individuals' regard for norms and standards as well as their fear of deviating from the majority were further strengthened by the ideology of collectivism and egalitarianism in socialist China. Before China's economic reforms and 'opening-up' in 1979, great importance was attached to collectivism and egalitarianism as an important component of the socialist culture and ideology, and these have exerted considerable influence on people's conduct. Collectivism stresses the equal contribution by everyone in society while egalitarianism demands equal sharing of wealth. In such a social and institutional environment, the doctrine of the mean reinforced its influence on people's perception of the world and of their activities. There is a rich body of research literature on the implications of the doctrine of the mean on the world view and activities of Chinese people today (Ding 2009; Wang and Ma 2008; Wei 2009; Yu 2008; Zhang 2008; Zhang, et al. 2008; Zheng 2008). It is argued

that individuals guided by such a philosophy would act as the majority do, resist taking responsibilities, avoid standing out, staying out of trouble and being reluctant to take initiatives and innovative actions (Ding 2009; Li 2000; Liu 2008; Wei 2009; Yu 2008; Zhang 2008; Zhang, et al. 2008). Therefore, people's regard for norms and a fear of being different were, and are still, an important element of the cultural and social values of China.

At FAW-VW, guided by the doctrine of the mean, employees were reluctant to take initiatives and shoulder responsibility. Unless it was defined clearly in his or her job responsibilities, employees were unwilling to take on any extra work. Being responsible meant that they risked being picked out for any mistakes made in the process. Individuals would only concentrate on the work clearly assigned to them, which they made an effort to perform in such a way that it was good enough to keep them out of trouble. They refused to take on extra responsibilities and only considered such from their own perspective. 'Staying in the middle', i.e., avoiding being picked out for mistakes, was of great importance to Chinese employees at FAW-VW. Such a tendency to eschew responsibilities made a strong impression on someone from outside Chinese society. All the VW managers I interviewed commented on how their co-workers were unwilling to take on responsibilities unless they were being ordered by their superiors to do so as part of their job. One VW expatriate in Engineering commented:

> *Here sometimes something must be told to be done. If not it is not done for days, then suddenly they are told that if it is not done by tomorrow morning we have a problem. Then something happens overnight. When you come in the morning you will find things are done. ... Let me give you an example: Once the firm decided to build a control room in the factory plant. This was related to two departments and none of the heads took responsibility. Then the Board of Management decided it had to be done, I never forgot, it's Dec 15th, end of discussion. Dec 18th they started to dig holes. Then I was out of the company for*

some days. When I came back on Jan 5th, the control room was completely ready. (VW expatriate in Engineering Department)

Influenced by the doctrine of the mean, employees were unwilling to either outperform or underperform. They were unlikely to be encouraged by any potential merit accruing to them by taking on extra work. They were comfortable and satisfied as long as their own job was completed. The overall interests of the firm or of others were of little concern to them. VW managers were astonished at their lack of concern for anything other than their own job.

Here [at FAW-VW] people's loyalty is not high enough ... They are more worried about themselves. But when I ask them to do some work, they say that this is not my responsibility, and that's it. ... In order to get them to work, I have to say please do this job, if anything goes wrong I will be responsible for that. ..... The first thing people ask is, "Is this my job or is it anyone else's job? If it is not my job I will do nothing but I will not say that I will do nothing". (Audi specialist in Planning Department]

Another VW manager also commented on the lack of concern shown by FAW-VW employees for the interests of the firm as a whole:

Chinese colleagues, in my opinion, I have to be very careful, in my opinion they don't think about the company as a whole. They think of their own ... I'll give you an example: On my last stay I came back from the production site, and the IT manager came out of his office and told me "oh, company has a very big problem!" We produced 2500 cars with the wrong brand labels, they cannot be sold and so on but they had been shipped all over China. I told him, "It is a very big problem I see, but you look so happy." And he said, "Oh, it is not my problem." (VW manager in Production Department]

Guided by the doctrine of the mean, employees at FAW-VW were reluctant to take any initiative or innovate as this might have landed them in trouble. They preferred to carry out their superiors' orders even if the orders were

likely to cause a problem rather than propose innovative solutions to potential, or actual problems. When they encountered a problem, they tended to copy the solutions of their VW partner rather than think and act creatively. In these ways, it was easier for them to stay out of trouble, and they justified their decisions by directing any questions to their superiors or their partners.

> *The Chinese worker will perform his or her boss's order even when it is wrong and they know it's wrong. He will get a ... can't find the English word... In Germany such a guy would be kicked out of the company. ... As an example, when the new Jetta base was launched, there was a working list [a list of task to be carried out]. The front glass was glued. The old one was also glued. For the glue you have to add some chemical additive. The glue will actually stay. On the new working list this instruction was missing: add that additive. A worker went to his boss and said, "Boss, look these two have the same glue, there must be a mistake." The boss said, "Shut up, you do what has been written." We produced 4500 cars without glue. They had to be called back from all over China. It took 4 months to repair them. The guy who missed the line in the working list was kicked out of the company. But nothing happened to the boss who said do what it say.* (VW manager in Production Department)

As indicated in the story above, employees at FAW-VW were reluctant to voice their opinions, especially when such opinions were different from those of authority or their superiors'. It was safer to copy the solutions of others when they were faced with new problems:

> *What we often remark on is that when they have a problem they look at what Audi is doing and what VW is doing. Then they copy that, and it is like some fakes outside the market. On the outside it looks the same, but inside it is empty because they only copy the look of the function but not the function itself. They look alike but they don't work alike. ... They try to copy what we do when we have a similar problem ... In Germany we say we have to check if this is the better way. But the copying here is always extreme. ... They don't ask why you take this approach or that*

> *one [to make it] a bit better ... It is always, "ah, it doesn't matter what happens [after]".* (Audi specialist in Planning Department)

As discussed above, it is contended that under the influence of the doctrine of the mean, employees feared to deviate from the behaviour of the majority and attempted to stay out of trouble by eschewing extra responsibilities, avoiding raising innovative and creative ideas and mechanically carrying out orders by their superiors even when such orders were regarded as problematic. It is also observed that workers at FAW-VW had a tendency to approach their targets with little deviation. Some quantitative performance data lends support to this claim. Figures 5.6a, 5.6b and 5.6c show the quality audit scores awarded to workers on the Jetta production line in 2007. The pink symbols in the graphs were the actual performance values whereas the green line was the target score. A lower score stands for a better quality.

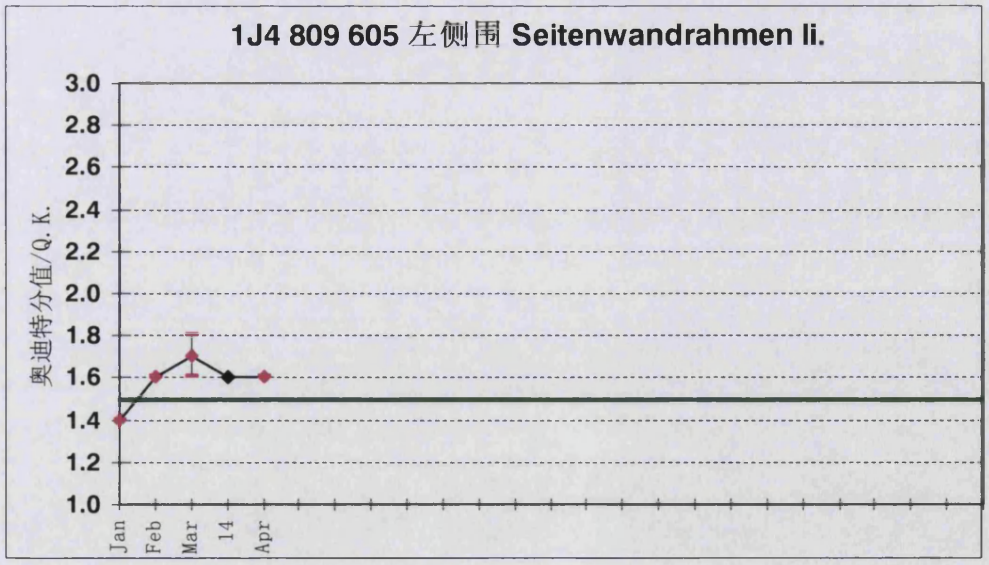


Figure 5.6a: Quality Audit Scores Awarded for Jetta Production Line Workers (Source: FAW-VW Internal Document 'Audit Score Tendency')

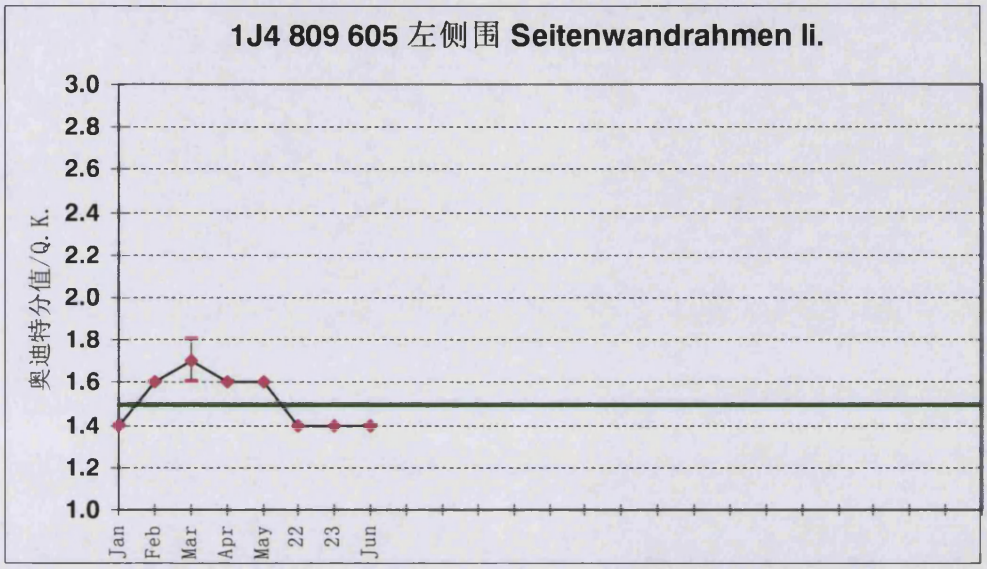


Figure 5.6b: Quality Audit Scores Awarded for Jetta Production Line Workers

(Source: FAW-VW Internal Document 'Audit Score Tendency')

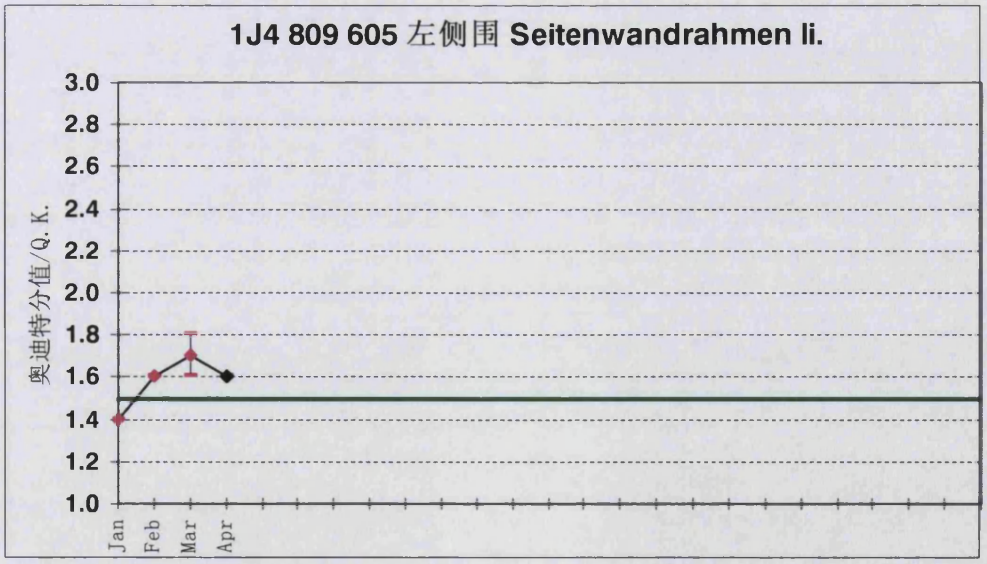


Figure 5.6c: Quality Audit Scores Awarded for Jetta Production Line Workers

(Source: FAW-VW Internal Document 'Audit Score Tendency')

It can be seen in Figures 5.6a-c that the actual performance had a tendency to approach the target line without too much deviation. As discussed above, employees at FAW-VW, deeply influenced and institutionalised by the Chinese philosophy of the doctrine of the mean, tended to have a strong regard for rules and norms, and a fear of being different and picked out for both good and bad reasons. Those world views and the resultant activities, or lack thereof, of FAW-VW employees affected the implementation of the calculative technologies mentioned above.

On the one hand, to the extent that calculative technologies have the intended effects on employees, i.e., to align their behaviour with the objectives of the firm, they work through employees' respect for rules and norms and a desire to avoid being picked on. The calculative devices and technologies deployed at FAW-VW had standardised and actualised norms (quality and cost) while collecting and statistically analysing performance data for individual employees. Individuals were provided with information about their peers' performance as well as the peer performance mean and the minimum requirement expected of themselves. Individuals sought to act with a tendency approaching the norm, follow what others did and strove to achieve what was achieved by the majority. They sought to carry out their job carefully to meet quality standards, put forward cost reduction proposals as others did, and avoided standing out by striving to fulfil the quota assigned to them. Calculative devices acted upon the individuals through their tendency to meet the norm and their fear of being different.

On the other hand, the predisposition and behaviours of FAW-VW employees, guided by the doctrine of the mean as well as other informal practices prevalent at FAW-VW, made it more difficult for the calculative technologies to encourage employees to behave in accordance with the rules and standards laid down by the firm. Employees were also reluctant to stand out; to be the first in

raising new or creative ideas. They tended to be unwilling to express their opinions as they feel they should be taking a middle course and avoid getting involved in any kind of conflict. They were reluctant to take a position and seek to shy away from any kind of responsibility. Responsibilities were shuffled from one department to another, from one person to another. Employees were very careful of their interpersonal relationships – being different, such as being ranked at the top, may be not so desirable as this might arouse attention and jealousy. Also this might make it more difficult for the evaluations from colleagues and juniors to yield a gratifying result. Managers tended to believe that workers should be kept in the dark about their real evaluations as well as the promotion processes as much as possible, to avoid conflicts and contradictions. This led to the distrust employees have in the quantitative evaluation system. The influence of the doctrine of the mean leads to a divergence between actual practices and those informed by the formal system of award, evaluation and promotion. This divergence was further exacerbated by the importance of interpersonal relationship networks (*Guanxi*) and certain practices carried out at FAW-VW.

4.2 *Guanxi*

Certain routine practices observed at FAW-VW clashed with the firm's attempt to embed the notion of constant quality improvement and cost reduction in the minds of employees. These practices, i.e., Guanxi and the rotation practice, diluted the potential impact that the calculative devices had on employees. In this chapter, these two practices are now examined in detail.

Guanxi plays an important part in the processes of hiring and promoting employees at FAW-VW. The influence that Guanxi has on organisations and society in East Asian countries, and particularly in China, has been well

discussed and documented in the literature (Bian and Ang 1997; Davies, et al. 1995; Hwang 1987; King 1991; Li 2007; Park and Luo 2001; Tsang 1998; Xin and Pearce 1996; Yang 1994). The practice of Guanxi is deeply embedded in Chinese culture, having a history of 5000 years (Yang 1994). It is construed as direct particularistic ties between an individual and others, a relationship that captures the social and economic background and the family origins of individuals (King 1991). Guanxi is argued to have significant implications for an organisation's marketing, and resource and network management, and is considered a competitive advantage for individuals and organisations (Davies, et al. 1995; Farh, et al. 1998; Tsang 1998; Tsui and Farh 1997; Xin and Pearce 1996).

At FAW-VW, the practice of Guanxi is reflected in the informal networking between individuals and their superiors. The personal ties between individuals and their managers have a significant influence on the evaluation and promotions system of the firm. Evaluations of employees' performance can hardly be as objective and neutral as the incentive system designed by the firm makes it seem. The existence of such an 'invisible hand' encourages employees to place less attention on the formal procedures designed for the selection of future leaders, and the complicated incentive system. The actual practices become disconnected from the formal procedures as indicated by some of the following quotations from interviewees:

> *I am not sure which band of my position belongs to. ... I don't really care about it. ... I don't see how it is different now... basically this is just a state-owned company...*(A FAW junior engineer in Product Department)

It can be inferred that '*[FAW-VW] is just a state-owned company*' means that the evaluation and the promotion decisions heavily depend on the personal relationship one has with one's superiors. In this way the actual promotion

practices became disconnected from the carefully designed career path and evaluation mechanisms.

It is also made clear that no obvious changes in the incomes of employees were observed after the adoption of the management techniques:

> *After applying the new position categorization, it seems that everyone's incomes all increased. Overall there is hardly any change at all.* ... (An FAW engineer in Plant I)

A junior FAW manager in the Purchasing Department remarked on how the favourable personal relationship with one's supervisors can affect the formal evaluation system:

> *An individual's work is evaluated by his superiors and such performance evaluation is administered and documented by the HR department. ... Promotion decisions are made by managers based on such evaluations. ... But, of course, absolute fairness does not exist. If managers favour someone, then he can be given a task which is of great importance. He then would have more to show in terms of the contribution made to the firm and ends up with a more positive evaluation. If the same job was to be given to someone else, then that person would be able to perform it and be evaluated positively as well.* ... (FAW junior manager in Purchasing Department)

Guanxi also plays an important role in the processes of hiring employees at FAW-VW. While walking along the assembly line at FAW-VW, an engineer in the Quality Department of Factory II pointed at the some blue-collar workers working on the production line and commented:

> *These electricians have the easiest job and best pay among all workers. So you see these people, they all have some relatives working as junior or senior managers here to get them such a good job.* (FAW engineer in Plant II)

This impact of the practice of Guanxi on the recruitment decisions at FAW-VW is also well-known by VW employees:

> *I have some strong indicators that people who want to work at FAW-VW have to pay a year's salary; this money is distributed among the managers of FAW according to a fixed formula. You have to pay to get a job, you buy a work place. ... Not only workers, also members of other departments, Logistics, IT, Planning and so on. Maybe these things happen in Germany too – such things happen all over the world. But I think the amount here is much higher, it is very common here. And in Germany it is extremely exceptional. ... When you don't have Guanxi, you will get a work place only if your skills fit the requirements of the job. If you can pay, your skills do not have to fit the requirements of the job, and so you will not be able to do your job. I've found a certain number of colleagues who are not able to do their job. Why? Maybe one of reasons is that ...* (VW expatriate in Engineering Department)

The above quotations indicate that the change in the compensation scheme in some cases failed to link performance to pay. Guanxi, or the relationship employees have with the key players in the firm, plays an extensive and decisive role in the career development of employees.

As a result, employees prioritised informal personal relationships over the carefully designed incentive system and the career path pictured (Figure 5.3 and 5.4) as they believed that the future development of their career had more to do with their managers' opinion of them than with the quantitative scores awarded to them at the end of the year.

Another example of the informal practices which led to the deviation of actual behaviour of employees from the route informed by the formal control system was the rotation routine of FAW-VW, which was borrowed from the government. In the joint venture company, managers were rotated frequently.

There is an informal policy in the company that junior managers will be transferred to a different position every two years and senior managers every four years. The senior managers might even be re-allocated to other companies within the FAW group.

Similar practices can be observed in the government. The Chinese government has a policy concerning the management of its personnel, which is that all senior governors should be rotated every five years and no one can stay in the same position for more than ten years. Such a system can not be entirely labelled as 'distrust in allocating power' but is a highly institutionalised historical practice which can be dated back as far as 300 AD.

In ancient China, emperors sent officers as governors to rule local people in different provinces, some of which could be quite far away, so they might have had difficulty communicating with the central government in a timely and effective manner. Therefore, to ensure the emperor's control over the officers and to make sure that governors fulfilled their responsibilities in a loyal and fair manner in different corners of the empire, there existed a complicated 'suspicion-avoiding' system. For example, an officer could not be the governor of his home area; officers who were related to each other could not work in the same department; a governor could not acquire assets in his jurisdiction; etc. As part of this 'suspicion-avoiding' system, a rotation practice started in the Jin Dynasty (around 300 AD) which was the first to limit a governor's tenure to three years. The exact length of tenure as governor changed from dynasty to dynasty and emperor to emperor, but it was usually three, six or nine years (Fang(Tang-Dynasty) 1974; Shen(Liang-Dynasty) 1974; Wang 2007; Wei(Tang-Dynasty) 1973; Zhang(Qing-Dynasty) 1974). Today, the Chinese government's practices still portray this heritage. Because of the strong connection existing between the joint venture company and the government, such a rotation practice is also found in FAW-VW.

As FAW, one of the partners in the joint venture company FAW-VW, is a state-owned company, the government still has a strong say in some of the firm's policies and its personnel management. High-level personnel changes at FAW have to be approved by the government. Senior managers at FAW can be transferred to other state-owned companies. There are even exchanges of personnel between the government and state-owned companies. For example, the previous CEO of the FAW group became the vice governor of Jilin Province (which is where FAW is located). Moreover, when the joint venture company was established, extensive support in terms of favourable policies, direct financial support, the waiving of taxes, etc. were given to it by the government. Even today, the government has to be consulted in – and sometimes has to approve – the launch of big projects, expansion schemes, imports of certain parts and decisions about certain local suppliers. Due to such close ties between the joint venture company and the government, certain practices have emigrated from the government to the joint venture company. The rotation practice is one of these practices.

The legitimisation provided by the FAW partner for this informal policy is that the managers' all-round experience allows them to bring out the potential and improve the performance of managers. However, such a policy, it is claimed by VW managers, impedes the effectiveness and efficiency of their work. The frequent change of the FAW managers, sometimes even of the interpreters, with whom German managers work, constantly challenges the quality control and improvement activities.

According to a German manager in the manufacturing plant:

> *My Chinese partner was changed overnight. When I began to work with him, he had no knowledge in this area at all. I have to teach him from beginning. Then suddenly one day they wanted to*

transfer him to some other place, and they didn't ask my opinion before they make such a decision. Then he was gone in one day. Usually in Germany you will use two weeks to train your successor. But here when the new manager came, the old one was already gone. So I have to start training him all over again. ...

One IT specialist was on his second visit and complained that all the staff he used to work with were gone.

...on my last visit, my colleagues and I had worked hard to train the people in this department [IT department], but now almost all of them are gone. I have to start working with some people who know nothing again. ...

Another example is given by a German manager in Planning:

I've experienced that HR department changes jobs of people every, don't know maybe 2 years puts people which are experienced and learned special things with a big effort, takes them from this place to another where they don't have any skill about that and put new people there and they don't have skills for this job.

A German manager in the Body Shop explained how he had to fight to keep his interpreter:

...in this company, they will change employees to other places. Once they [HR department] decided to change my interpreter. I can't accept that as she is not merely an interpreter, she knows so many things by now. It makes my work easier. ...

Another German manager confirms the interference caused in his operational work by such frequent personnel changes:

Three years ago we had a training campaign in Germany we educated 25 workers with a lot of effort in Germany. A lot of

German colleagues came to here to train these people with special skills car electronics. None of these 25 guys is on his job now. They are all removed by HR department. Other colleagues are on this job but they cannot do it. So we have a lot of trouble in production because people cannot do their work.

As indicated above, the rotation practice makes it more difficult for staff to follow the rules and norms laid down. Quantified quality scores related to their performance were rendered useless as they might be transferred to a new place where their previous experiences and records were of no value. The career path drawn up becomes irrelevant as managers can be transferred to less important places where they may lose their special expertise or experience a decrease in their total income if they do not have their superiors' personal support, i.e., Guanxi. The mechanisms which attempted to render individuals governable were disconnected from the actual practices in the joint venture company. With the rotation practice, employees found it more difficult to appreciate the importance and the fairness of the evaluation system and the career path put forward by the company. They tended to believe that the development of their career depended more on the informal system (e.g. Guanxi) than the formal control mechanisms, therefore, the informal prevailed.

5 Conclusion and discussion

Calculative technologies have been suggested as influencing peoples' behaviour (Foucault 1991a; Hopper and Major 2007; Miller 2004; Miller and O'Leary 1987; Miller and O'Leary 1994a; Miller and Rose 1990). They act upon individuals and intervene in their professional lives to ensure that individuals perform in accordance with the standards and norm laid down. They make actors and subjects accountable and visible and transform the way in which they are conceived. They are constitutive of the social and institutional realities in which they are embedded.

During the 17 year existence of FAW-VW, a plethora of calculative devices have been deployed to transform employees into self-regulating individuals who will align their activities with prescribed norms and standards. Two distinctive systems of technologies as modes of governing have been identified and discussed in detail in this chapter: Performance Evaluation, Award System and Career Path on the one hand, and Reorganisation of Business Processes on the other.

This first system of technologies attempt to make employees governable in three consecutive steps: first, the objectives of the firm under different programmes are standardised, quantified and measured in monetary terms, with the quantitative performance of the employees measured against such standards and norms. Such data is then analysed statistically, recorded and distributed to related parties within the firm. Second, financial and non-financial (honours) awards are made to employees based on the performance information collected for them. Employees who were unable to achieve the quota or fulfil the target assigned to them would have criticisms published within the firm. In extreme cases, employees who performed badly could be suspended from their current positions and put on probation. Lastly, different career paths were drawn up for employees: a bright future and an upward career path was promised to those who had a good performance record, while employees who failed to improve after being put on probation might be dismissed from the company.

In such a calculative system an individual employee's behaviour was closely monitored, administered and gauged against quantified standards and norms. The award and promotions system was designed in such a way that staff would attend to the targets assigned to them and align their actions with the focus of the company should they wish to pursue professional development. In extreme cases, employees in the joint venture company might be dismissed should they

continuously underperform. Such technologies, implemented to 'act on the actions of people', attempted to render employees governable in such a way that they would automatically attend to their shortcomings in meeting the quantified quality/cost standards and the quotas assigned to them under different firm- and national-level programmes.

The second mechanism which was deployed to act on employees in the joint venture company was the re-organisation of business processes. Under this project initiated in 2002, the core activities of each division were defined and the responsibilities of each position clarified. For every key job, a detailed flow chart recorded the processes involved in carrying out the job, the person and divisions responsible, the records to be kept and the actions to take under different scenarios. (See Figure 5.5, which presents a flow chart of the quality audit activities for purchased components and parts.)

Under this project, individuals' job activities were clearly defined and routinised. Visibility and accountability were ascribed to employees as they became more accountable for their activities, with them being clearly defined and responsibilities spelled out. As can be seen from the flow chart in Figure 5.5, employees were clearly informed about the divisions and positions responsible for each step involved in the job process, and what actions they were to take if a problem was detected. Therefore should employees make any mistakes, they would be identified and held responsible. Their mistakes would be recorded in the company's database; influencing the evaluations of the employees and eventually having an impact on their income and career development. Under such a mechanism, employees were motivated to attend to their own deficiencies and expected to carry out their jobs strictly according to the standards.

The calculative devices and mechanisms discussed in this chapter actualised the norms (quality and cost) and were implemented in an attempt to align the activities of individuals with particular programmes. It is argued that these calculative devices deployed at FAW-VW acted upon individuals through their having regard for norms and their fear of being different, rather than through any aspirations for self-fulfilment as indicated in a neo-liberal environment. The social and political environment the employees of FAW-VW were imbued with, has caused them to uphold different values and a different philosophy.

Moreover, to some extent a decoupling of actual practices from the mechanisms designed, has been observed at FAW-VW. The evaluations of employees' performance can not be as objective and neutral as desired by the quantitative incentive system due to the practice of Guanxi. This practice plays a vital role in promotion decisions made by managers, which causes the actual practice to deviate from the system designed by the firm. Other management practices followed at FAW-VW, such as the rotation system, made it more difficult for employees to follow the rules and norms set down. Quantified quality scores related to their performance can be rendered useless as the employee might be transferred to a new role where their previous experience and record is of little use. The career path mapped out for employees can be made irrelevant as managers are also transferred to less important places within the FAW group where they may lose or dilute their special expertise or experience, and experience a decrease in their total income if they do not have their superiors' personal support - another example of Guanxi. Moreover, Chinese philosophies, which influence an individual's way of thinking and their conceptions of a career, may also to some extent diminish the effects the above mechanisms may have on the actions of individuals.

Under the influence of Chinese philosophies, especially the doctrine of the mean, employees at FAW-VW tended to be extremely cautious about their

words and conduct, fearing any deviation from the majority. This state of mind, on the one hand, made individuals follow norms and rules set out by the company and avoid deviating from the conduct of the majority, while on the other hand it restrained individual's creativity and their innovative and aggressive spirit. Employees are reluctant to take initiatives and shoulder responsibility. Being responsible means that they risk being picked out for any mistakes made in the process. Individuals will only concentrate on the work clearly assigned to them, which they will make an effort to perform in such a way that it is good enough to keep them out of trouble. Employees are also reluctant to stand out; to be the first in raising new or creative ideas. Employees are very careful of their interpersonal relationships – being different, such as being ranked at the top, may be not so desirable as this might arouse attention and jealousy. Also this might make it more difficult for the evaluations from colleagues and juniors to yield a gratifying result. Managers tended to believe that workers should be kept in the dark about their real evaluations as well as the promotion processes as much as possible, to avoid conflicts and contradictions. This leads to the distrust employees have in the quantitative evaluation system. As a result, the influence of the doctrine of the mean leads to a divergence between actual practices and those informed by the formal system of award, evaluation and promotion.

In sum, this chapter has investigated different modes of governing which attempted to align the actions of employees at FAW-VW with the objects of the firm. Different calculative tools of management accounting are deployed to administer and influence individuals and attempt to render employees governable. The discussion has shown that the process of 'making people governable' is a complicated one. The systems of calculative technologies embedded in specific social and institutional networks can have multiple effects on employees. At FAW-VW, routine management practices, webs of personal relationships and the distinct philosophies of Chinese people have led to a

disconnection between the actual practices of employees and the formal system of calculative devices. Individuals are governed through their regard for norms and their fear of being different instead of their self-regulating propensities. This chapter has shown that making individuals governable is a more complex process than indicated in the literature (Miller and O'Leary 1994a; Miller and O'Leary 1994b; Miller and Rose 2008). The effects of calculative devices and control dynamics cannot be examined in isolation from the social and historical context in which organisations are embedded. Cultures, philosophies and social values all have an impact on the application and operationalisation of the control dynamics imposed on employees.

Chapter 6 Control Mechanisms at FAW-VW: Dynamics and Action

The last forty years or so have witnessed an increased interest by researchers in joint ventures across the world. Joint ventures are now considered an important form of organisations instead of merely a transitional state. Particularly, this organisational form allows firms access to the enormous markets of emerging economies, which otherwise would have been impossible due to the market barriers imposed by governments and the limited knowledge of market conditions in emerging economies. In China alone, joint ventures account for over 60% of the total foreign investments. A growing volume of research is devoted to the studies of management controls in joint ventures, which mainly adopts a functionalistic approach and positivistic economic methods. This thesis attempts to contribute to the literature by adopting an approach grounded in qualitative empiricism, examining the control dynamics and their actual effects on employees within the social and institutional context in which the FAW-VW joint venture company is embedded.

This study has identified and analysed the conditioning forces of the transition from a quality oriented control mechanism to a cost oriented one at FAW-VW over a period of 17 years. It has argued that such a transition is not a simple strategic choice but instead is only made possible by discourses, national programmes, and expertise within and outside the joint venture company. The thesis has further examined the way in which technical rationales based on cost or quality are used strategically and politically to vie for control by each partner. It has been argued that institutions and norms that came to shape the control mechanisms deployed at FAW-VW were to some extent produced internally and purposely exerted more extended control over the joint venture company. As part of the control transformation process, attempts were also made by both

the FAW and the VW partners to alter the predisposition of employees and workers, who came from a socialist legacy, into a new situation of governable self-regulation in a neo-liberal sense through various modern management technologies deployed at FAW-VW. It has been argued that individuals at FAW-VW were not induced to act through their attempt to develop a more fulfilling self, but rather through their regard for normalised values and a cultural tendency to avoid being different. To a certain extent, resistance toward the technologies of the governing body was expressed at the individual level. Actual practices are partially decoupled from the explicit mechanisms designed to effect control.

1 Summary of research findings

This thesis has sought to develop an understanding of how control elements are evolved, transformed and deployed, and what actual effects these control mechanisms have on employees within the Chinese-German car manufacturing joint venture, FAW-VW (First Automobile Work – Volkswagen). The first phenomenon, investigated in Chapter 3, concerned the emergence of quality focused control mechanisms and the subsequent transition to a cost reduction focus within FAW-VW in the context of historical events and discourses.

Since the establishment of the joint venture in 1991 until 2002, quality was prioritised during the daily operations of FAW-VW. The local aspiration of 'becoming the best car manufacturing joint venture' (FAW-VW Newspaper, Aug 1997) was linked to the national concern for building the car industry as the 'pillar industry' while 'the best' was interpreted as 'the best in quality' within FAW-VW. A number of calculative and non-calculative technologies were adopted to operationalise the local agenda of quality enhancement. Around the year 2000, the issue of China re-joining the WTO, directed the

attention of various parties towards competitiveness. In the face of this phenomenon, the Chinese car industry was re-problematised in relation to the severe competition local car manufacturers would likely experience. The concern with the 'competitiveness' of Chinese car manufacturing enterprises was subsequently translated into a new local agenda in terms of cost reduction, effective since 2002. Cost superseded quality as a programme of intent and became the new focus of control at FAW-VW. Hundreds of thousands of 'cost reduction proposals' were collected from employees and many implemented, while components and parts that were originally imported from VW were replaced by cheaper items made locally. It is through these technologies that the concern with cost reduction was made operable at FAW and entered the body politic of the employee.

Concepts from the governmentality literature were adopted to study the linkages among rationales, discourses, national programmes, diverse bodies of expertise, and the transition in control focus within the joint venture under study. Chapter 3 has explored how the complex of these linkages and relays, which was by nature temporary and fragile, came to be reformed in a distinctive way in the face of new events. Focal attention was directed on the manner in which the simple aspiration for a local car manufacturer of 'being the best joint venture' was linked to the national concern for 'building a modernised car industry' as well as the way in which different meanings became attached to the pursuit of 'being the best' within FAW-VW, through the operation of a multiplicity of different actors and agencies, including politicians, government officers, entrepreneurs, scholars and engineers.

By examining the relays and linkages formed between discourses, national concerns of competitiveness in car industry and local control mechanisms within the joint venture, the governmentality framework helps to elaborate why and how certain arrangements of the VW partner which were acceptable to and

welcomed by the FAW partner at one point in time, ultimately led to increased tension and became the centre of conflict. The temporary agreement and peaceful cooperation between the two partners cannot be fully conceived from the sense of strategic considerations. Instead, temporary balances of power between the two partners are more likely to be associated with certain mechanisms and technologies i.e. the technologies of one partner (VW's high standard quality control mechanisms) resonating with the programmes of another partner (FAW's programme of building a modernised factory with internal competitiveness). Once the programme of FAW evolved and was infused with new meaning as the new issue was construed by a multiplicity of agents and agencies, particular mechanisms would appear to be incongruent with the new agenda of FAW. As such, different programmes were adopted by the partners using different sets of techniques. The harmony that prevailed dissociated and tensions between the two partners emerged.

Chapter 3 further illustrated how interpretations of quality enhancement and cost reduction tied to the local programme, were made operable by a series of calculative and non-calculative technologies adopted within FAW-VW. It is through these calculative and non-calculative technologies that partners were able to institutionalise and normalise the conduct and aspirations of employees. It has been shown how the techniques, such as reports of quantified quality, or quantified assessment of cost savings of individual employees and processes, served to transform employees into 'governable individuals'. With FAW-VW, the new programme (cost reduction) superseding the old agenda of the FAW partner (quality enforcement) does not imply that the prior focus and balance has been completely removed from the firm. Shifting programme emphases upheld by the two partners can continue to coexist at the firm level. Heterogeneous technologies are then adopted to enable interventions and alter employees' conduct, which results in a high level of conflict between employees from the two partners and senior management, as well as being

reflected in confrontational decisions. The governmentality framework sheds light upon these conflicting actions and decisions.

On the other hand, the governmentality literature is less directed at explaining the institutional usage and political deployment of such rationality. It examines the conditioning factors of the conflicts and struggles between employees and managers of the two partners as well as the contradictory decisions made by them. However it does not seek to capture the tension between the two partners and the subsequent actions taken by each at a more micro-level, and the rationalities underlying the manner in which accounting controls were deployed in the context of such tensions. New institutionalism has been drawn on to inform the analysis of the strategic and rational usage of rationalities and institutions by each partner within the joint venture company in Chapter 4.

Chapter 4 discussed the institutional pressures faced by the two partners and it has been argued that the behaviours of employees as well as the choice of control mechanisms within FAW-VW, were subject to the influence of coercive, mimetic and normative institutional forces. This chapter also attempted to elaborate the tensions in FAW-VW, characterised by conflicts and compromises, interference and resistance, and autonomy and frictions of the two sets of actors. What appeared to be simply technical interactions and reasoning between the two partners, appeared to be anything but technical.

Three principal conflicts between the two partners exhibited within FAW-VW were identified and examined in detail. With the partners each upholding different values and inhabiting different sets of social and institutional contexts, each partner exerted a specific form of control over the other joint venture partner, thereby exhibiting high particularity of rationale. Therefore the amplification of quality, and the stress on efficiency and effectiveness of the VW partner, as well as the FAW partner's focus on cost, their emphasis on the

comprehensive development of high quality managers, and their concern with a structured responsibility system, are better portrayed as rational uses of the symbolic nature of economic arguments enabling more extended control by a particular partner over the joint venture. The appeal to technical rationales to guide partner actions accords with symbolic uses of rationality as discussed in the institutionalist literature. However, the movement of such symbolic appeals back and forth between the two partners to exert control over the joint venture, is of particular significance. The empirical interviews illustrate the degree to which both parties in the joint venture appealed to technical rationalities in a symbolic manner whereby conditioning influences from within and outside the joint venture became co-mingled and not necessarily decipherable as having unique provenance or continuity. The joint venture evolved its own forces of change which combined with those external to the entity. FAW was constrained by having to meet VW based quality regulations and standards achievements. FAW met with the reporting requirements in a variety of ways: quality standards reports, localisation quality tests, and budget reports. By contrast, VW was challenged to meet the FAW imposed personnel rotation system, and cost reduction endeavours. One perspective in interpreting the control dynamics using the new institutionalist frame of reference is to consider the extent of the rationalistic versus the symbolic appeal of the reported information to the other party. The evidence presented suggests ambiguity between technical and symbolic reporting usage of information. Overall, Chapter 4 attempted to contribute to the new institutionalism literature by suggesting that the legitimacy and rationalistic deployment of information are used in control settings in an intertwined manner, rather than a conceptually demarcated one.

Chapter 5 has investigated the actual effects of control mechanisms adopted within FAW-VW on FAW employees in relation to the historical heritage and cultural disposition of the Chinese employees. As depicted in Chapter 3, a shift from a focus on quality to one on cost reduction is identified. Different control

foci (cost and quality) were made operable through a plethora of calculative technologies under diverse programmes at different levels. During this process, attempts to transform the employees at the joint venture company into governable self-regulated entities were made by the use of various governing technologies. This chapter focused on how different calculative devices were implemented with the aim to 'modernise' and 'internationalise' their employees under different nation-wide and firm-level programmes by both the FAW partner and the VW partner.

Calculative technologies have been suggested to influence peoples' behaviour (Foucault 1991a; Hopper and Major 2007; Miller 2004; Miller and O'Leary 1987; Miller and O'Leary 1994a; Miller and Rose 1990). They act upon individuals and intervene in their professional lives to ensure that individuals perform in accordance with the standards and norms laid down. Within FAW-VW, a plethora of calculative devices had been deployed to transform employees into self-regulating individuals who would align their activities with prescribed norms and standards. Two distinctive systems of technologies as modes of governing were identified and discussed in detail in this chapter, namely Performance Evaluation, Award System and Career Path on the one hand, and the Reorganisation of Business Processes on the other.

It has been argued that with the first system of technologies an individual employee's behaviour was closely monitored, administered and gauged against quantified standards and norms. The award and promotions system was designed in such a way that staff would attend to the targets assigned to them and align their actions with the focus of the company should they wish to pursue professional development. In extreme cases, employees in the joint venture company might be dismissed should they continuously underperform. Such technologies, implemented to 'act on the actions of people', attempted to render employees governable in such a way that they would automatically

attend to their shortcomings in meeting the quantified quality/cost standards and the quotas assigned to them under different firm- and national-level programmes.

Under the second control mechanism, individuals' job activities were clearly defined and routinised. Visibility and accountability were ascribed to employees as they became more accountable for their activities, with them being clearly defined and responsibilities spelled out. Employees were clearly informed about the divisions and positions responsible for each step involved in the job process, and what actions they were to take if a problem was detected. Therefore should employees have made mistakes, they would be identified and held responsible. Under such a mechanism, employees were motivated to attend to their own deficiencies and expected to carry out their jobs strictly according to the standards.

This chapter further considered what multiple effects such technologies have on the employees, effects many of which can be accounted for by the particular mentalities, webs of personal relationships and distinct philosophies of Chinese employees. It has been observed that the employees at the joint venture company followed certain protocols governing interpersonal relationships and practices. Employees were enmeshed within a web of personal relationships (*Guanxi*) which constrained their ability to choose freely their responsive actions which are dictated by the calculative devices. It has been argued that these calculative devices deployed at FAW-VW acted upon individuals through their regard for norms and their fear of being different, rather than through any aspirations for self-fulfilment as indicated in a neo-liberal environment.

Moreover, to some extent, a decoupling of actual practices from the mechanisms designed was observed at FAW-VW. The evaluations of employees' performances could not be as objective and neutral as desired by

the quantitative incentive system, due to the practice of Guanxi. This practice played a vital role in promotions decisions made by managers, which made the actual practices deviate from the practices designed by the form's promotions system. Other management practices followed at FAW-VW, such as the employment rotation practice, made it more difficult for employees to follow the rules and norms set down. Quantified quality scores related to their performance could be rendered useless as they might be transferred to a new place where their previous experience and record was of little use. The career path mapped out for them could be made irrelevant as managers were transferred to less important places within the FAW group where they may lose their special expertise or experience, and experience a decrease in their total income if they did not have their superiors' personal support. Another example of Guanxi. Moreover, Chinese philosophies, which influence individuals' ways of thinking and their conceptions of a career, may also to some extent diminish the effects the above mechanisms have on the actions of individuals.

In sum, Chapter 5 has investigated different modes of governing which attempt to align the actions of employees at FAW-VW with the objects of the firm. Different calculative tools of management accounting were deployed to administer and influence individuals and attempted to render employees governable. The discussion has shown that the process of "making people governable" was a complicated and unpredictable one. The systems of calculative technologies embedded in specific social and institutional networks can have multiple effects on employees. At FAW-VW, routine management practices, webs of personal relationships and the distinct philosophies of Chinese people have led to a disconnect between the actual practices of employees and the formal system of calculative devices. Individuals were governed through their regard for norms and their fear of being different, instead of their self-regulating propensities.

2 Methodological and theoretical reflections

2.1 Reflections on triangulations of new institutionalism and the governmentality literature

Both new institutionalism and the governmentality literature have informed the empirical analysis of this study. The combination of these two bodies of literature allows new insights to be gained that neither approach could provide in isolation. This study benefits from these two literatures in the following ways:

The study did not simply assume that the control mechanisms adopted in joint ventures were predetermined by their equity structure, risk factors and resource constraints. Instead it has established that the design and evolution of control mechanisms is a more complex and dynamic process. By drawing upon the governmentality literature, this research has shown how the transition in the control elements at FAW-VW were made possible by discourses, national programmes, government agencies and expertise within and outside the joint venture company. Although the governmentality literature (Miller and O'Leary 1994a; Miller and Power 1992; Miller and Rose 1988; Miller and Rose 1990; Rose 1988) is very helpful in this respect, it does not examine the way in which control mechanisms are implemented or practised in the organisation. Much of the research in this tradition tends to overlook the active and strategic roles actors are able to assume, while actors are generally depicted as passive and submissive. Moreover, the governmentality literature retains a macro level perspective stressing broad rationales and discourses effects and hardly focuses on specifics. It is from this respect that new institutionalism is able to complement the findings of the governmentality literature.

First, new institutionalism serves as the analytical tool that delineates two sets of social and institutional environments in which the two partners at FAW-VW are embedded. It has been observed that the behaviours of employees from FAW and VW are guided and influenced by different norms and institutions due to their different cultural origins and educational backgrounds, as well as work and life values. Therefore, by distinguishing the two sets of social and institutional environments in which the employees of FAW-VW are embedded, further analysis and interpretation of their strategic actions are made possible.

Second, new institutionalism provides the framework within which the control mechanisms are implemented and practised at FAW-VW, become open to investigation. This study has demonstrated the way in which the actions of employees at FAW-VW are influenced and shaped by coercive, mimetic, and normative institutional forces. More importantly, the study has illustrated that employees from FAW and VW appealed to technical rationalities, norms and institutions in a political and strategic manner in order to exert more extended control over the joint venture company.

Much of the research done by new institutionalists in organisational sociology has tended to focus on how various forms of institutional forces (e.g. cognitive, normative and regulative forces) lead organizations to converge in terms of structures and organisational practices (Covaleski and Dirsmith 1983; Covaleski and Dirsmith 1986; Covaleski and Dirsmith 1988b; Powell and DiMaggio 1991; Scott 1995). More recent research in this literature has begun to accentuate the institutional transformation process in which the old tradition, norm or institution is challenged and decomposed while the new ones are established (Lounsbury 2002; Lounsbury 2007; Lounsbury 2008; Scott, et al. 2002; Thornton and Ocasio 1999). However, this strand of new institutionalism research tends to focus on the transformation of logic at a macro level across an entire industry or profession. It does not examine the way in which norms,

institutions or logic prevailing in one local organisation are linked to those of the industry or national discourses. It is from this respect that this study benefited extensively from the governmentality literature.

By drawing upon ideas from the governmentality literature which centre around the later work of Michel Foucault (Burchell 1996; Foucault 1988; Foucault 1991a; Foucault 1997; Miller 1990; Miller 2004; Miller and Rose 1990; Rose 1992), this study has examined the linkages formed among discourses, national programmes, government agencies, expertise within and outside FAW-VW, and the emergence of a quality-oriented control mechanism adopted by the FAW partner and its subsequent transformation to a cost-oriented one. Drawing on certain concepts from the governmentality literature (problematisation, programme and technology), this study has illustrated the way in which the simple aspiration for FAW partners of 'being the best joint venture' was linked to the national concern of 'building a modernised car industry'. It has been argued that different norms, quality and cost, became attached to the pursuit of 'being the best' for the FAW-VW partners through a multiplicity of different actors and agencies, including politicians, government officers, entrepreneurs, scholars and engineers. In this manner, after 2002 the logic[37] of cost reduction for the FAW partner, and of quality for the VW partner, coexisted at FAW-VW, with both applied in a strategic and political manner by both the FAW and VW partners, in their attempt to vie for control[38].

[37] Lounsbury (2002) defines logic as 'organizing principles that govern the selection of technologies, define what kinds of actors are authorized to make claims, shape and constrain the behavioral possibilities of actors, and specify criteria for effectiveness and efficiency'.
[38] As examined in Chapter 4 of this thesis.

2.2 Reflections on the transition from quality to cost:

As illustrated in the previous chapters, during the FAW-VW 17 year history, the control mechanisms adopted at FAW-VW had moved from a quality oriented focus to one that centred on cost reduction. From the start of FAW-VW in 1992, quality had been given centre stage. Strategies were developed and techniques were adopted to improve product quality. The firm was involved in both national and international quality certification programmes. Daily quantitative reports were produced, the results of which were summarised, integrated, and analysed statistically. Each decision in the process of product formation was made to conform to the central objective of improving and assuring product quality. After China re-joined the WTO in 2002, a new meaning became attached to the idea of 'being competitive'. Cost rapidly and abruptly became a focal issue in the overall management system. Cost reduction became linked with the joint venture firm's sustainable development and future survival. It came to be conceived of as the 'primary force of competition'.

Such a transition may appear to be a purely strategic reaction to the change in market conditions. China's re-joining WTO had induced intense international competition into the national car industry. With the significant decrease in import duties, local car manufacturers were faced with more severe competition from imported cars, which were considered superior in product design and quality. In this context, the shift to a cost reduction control focus may be construed as an adjustment of the company's strategy in the face of the new competition. This functionalistic perspective provides a simple explanation of the change of control foci. But it does not shed light on why and how the cost reduction strategy substituted the quality enhancement strategy, and came to be considered as the solution for problems encountered FAW-VW.

Drawing on certain concepts from the governmentality literature, this thesis has shown the complex of networks beneath the surface of what appeared to be a simple strategic reaction to the change of market condition. It has been argued that the transition in control foci was only made possible by the linkages and relays formed among national discourses, government agents and agencies, and various experts within and outside the joint venture company. The local car manufacturers were problematised in terms of the issue of cost in the face of the new challenges brought up by China re-joining the WTO. The idea of cost reduction became attached to the national aspiration of building a strong national car industry and the cost reduction strategy came to be considered as the method by which car producers became more competitive. This thesis has illustrated how instead of being a simple and rational strategic choice of action, the transition in control foci was enabled by a multiplicity of actors and agencies including politicians, government officers, entrepreneurs, scholars and engineers.

2.3 Reflections on research of joint ventures

Prior research on joint ventures, which dates back to the 1980s, was the justification for strategic alliances, the criteria for firms to select partners, the trust issues among partners, the forms of risk emerging within alliances and the control mechanisms that could be deployed within the alliances. The main theoretical frameworks adopted by prior researchers included transaction-cost economics, evolutionary theories, resource-based theory, and game theory with the occasional application of organisational theory such as strategic-management theory, social network theory. This prior research tends to lean toward positivistivism and to be prescriptive and static. But there is some acknowledgement of the interactions, deliberations, and negotiations between

partners, the trust and risk issues involved, and the non-rational, non-economic factors that shape the structures and roles of control systems.

This study contributes to the literature of research on joint ventures by illustrating how control mechanisms adopted in the joint venture were not a simple function of equity structure, risk factors and resource constraints. Two strands of literature in the sociological studies of accounting and organisations have been drawn upon to inform the empirical analysis. This study has indicated that control mechanisms at FAW-VW were subject to the influence of discourses, national programmes, government agencies, diverse bodies of expertise within and outside the joint venture company. Moreover, it has illustrated how control mechanisms are used strategically and politically by each of the partners to exert more extended control over the joint venture company. Some of the control mechanisms were instrumentalised and observed closely while others were only followed strategically and became decoupled from the daily operational practices at FAW-VW. It has been illustrated that legitimacy and the rational usage of control elements, were deployed in combination rather than in isolation. The thesis has examined the actual effects of controls on employees. It has been argued that at FAW-VW, routine management practices, webs of personal relationships and the distinct philosophies of Chinese people have led to a disconnect between the actual practices of employees and the formal system of control devices. Individuals were governed through their regard for norms and their fear of being different instead of their self-regulating propensities. It was in this manner this thesis has attempted to contribute to the literature of research on controls within joint ventures.

3 Implications for future research

This study has been confined to the study of the development and operationalisation of control mechanisms and their effects on individuals within one particular joint venture and locale: FAW-VW. This research has drawn upon both new institutionalism and the governmentality literature to shed light on how control mechanisms evolve and transform over time and the way in which control mechanisms are implemented and affect the actions and mentalities of employees. It has illustrated that the transformation from a quality oriented control mechanism to a cost oriented mechanism within one local car manufacturing joint venture is informed by wider forces of change. Further comparative studies on how the same transition in national discourses and rationales affects the control foci in other companies in similar industries could be useful in drawing out more clearly the linkages among wider discourses, government agents and agencies, various experts, and the changes in control elements in local companies. It would be helpful to investigate how the same group of actors are involved in making the connection between the discourses and rationales at the macro level and the development of control mechanisms at the firm, or micro level. Such studies could be helpful to further illustrate the mechanisms adopted by different companies to make the same national programme operable.

Furthermore, this research has indicated how different control elements are used both symbolically to justify the attempt to exert more extended control over FAW-VW by the two partners, and rationally to achieve a higher level of efficiency and effectiveness. The evidence presented in this study has suggested the ambiguity between the technical and symbolic usage of accounting information. Technical and symbolic usages of control elements by both partners become commingled and inseparable. This study has attempted to contribute to the institutionalism literature by addressing the question of control

dynamics in a manner where legitimacy and rationalistic deployment of information is used in control settings in an intertwined manner rather than a conceptually demarcated one. It would be interesting to study how different control elements are appealed to both strategically and rationally in a different non-joint venture setting. It would be useful to explore other strategic aspirations underlying the symbolic usage of controls other than the justification and legitimisation of attempts to vie for control and identify different rationales implicit in the rationalistic adoption of control mechanisms. Further evidence in the combined symbolic and technical usage of accounting information and control elements in different organisational settings can advance the understanding in the new institutionalism framework. It would also be helpful to investigate in more detail how the symbolic and technical adoption of control elements interacts with each other.

Finally, this study has accentuated the mechanisms through which employees reacted to different forms of controls imposed on them within FAW-VW. It has been suggested that individuals' cultures, philosophies and social values all have an impact on the application and operationalisation of the control dynamics imposed on employees. It would be interesting to explore how the influences that Chinese cultures and philosophies have on individuals' reactions to the control dynamics imposed on them change over time as individuals receive training and further education in modern management concepts and rationales. Furthermore, how would control mechanisms affect the behaviour of various groups of employees who are embedded in different organisational settings, e.g. state-owned enterprises, private firms and overseas capital funded enterprises through the same regard for norms and fear of deviating from the majority? How would the exposure to modernised management education impact their responses to the calculative devices? Are disconnections of actual practices from formal control mechanisms present in other types of organisations of a similar form? Such studies could deepen our understanding

of the ways in which cultures, philosophies and social values affect the application of control dynamics. This thesis has sought to at least to open up for investigation, the development and usages of control mechanisms and the different ways through which employees are governed by calculative devices that emerge from diverse roots and platforms.

Bibliography

Ahrens, Thomas, and Christopher Chapman
2007 Management accounting as practice. Accounting, Organizations and Society 32(1-2):1-27.

Ahrens, Thomas, and M. Mollona
2007 Organisational control as cultural practice - a shop floor ethnography of a Sheffield steel mill. Accounting, Organizations and Society 32(4-5):305-331.

Baiman, S., P. E. Fischer, and M. V. Rajan
2001 Performance measurement and design in supply chains. Management Science 47(1):173-188.

Bian, Yanjie, and Soon Ang
1997 Guanxi Networks and Job Mobility in China and Singapore. Social Forces 75.

Brint, S., and J. Karabel
1991 Institutional origins and transformations: the case of Americal community colleges. *In* The new institutionalism in organizational analysis. W.W. Powell and P.J. DiMaggio, eds. Chicago and London: The University of Chicago Press.

Bromwich, Michael, and G.Q. Wang
1991 Management accounting in China: a current evaluation. The International Journal of Accounting 26:51-66.

Buckley, P.J., and M.C. Casson
1998 Analyzing Foreign Market Entry Strategies: Extending the Internalization Approach. Journal of International Business Studies 29(3):539-561.

Burchell, Graham
1996 Liberal government and techniques of the self. *In* Foucault and Political Reason : Liberalism, Neo-Liberalism and Rationalities of Government A.O. Barry, Thomas; Rose, Nikolas, ed. London: Routledge.

Burchell, Stuart, Colin Clubb, and Anthony G. Hopwood
1985 Accounting in its social context: Towards a history of value added in the United Kingdom. Accounting, Organizations and Society 10(4):381-413.

Burchell, Stuart, et al.
1980 The roles of accounting in organizations and society. Accounting, Organizations and Society 5(1):5-27.

Cao, Jue
1994 Machinery and automobiles: the pillar of the national economy. China Science (5):5-9.

Chalos, P., and Neale G. O'Connor

2004 Determinants of the use of various control mechanisms in US-Chinese joint ventures. Accounting, Organizations and Society 29(7):591-608.

Chen, Jiaqi
1986 The analysis of the correlation between the estabilisment of Pillar Industry and the transition of economic mode. China Mechanical Engineering (1):29-32.

Chen, Shuxun
1988 A few problems concerning the development of macro-management of the natioanl car industry. China Industrial Economy:37-40.

Chen, Yingyi
1994 To develop China's automobile industry with great efforts. Modern Economy 65(3):45-47.

Chen, Yuxiang
1995 Technology development design for the automobile machinery industry during the period of the ninth five-year plan. Development and innovation of machinery and electrial products (5):3-5.

Cheng, Wenhua
1996 "The three battles" of the Ministry of Machinery Industry. *In* World's machinery business and trade information. P. 1.

Child, John, David Faulkner, and Stephen B. Tallman
2005 Cooperative strategy: managing alliances, networks and joint ventures. Oxford: Oxford University Press.

China Statisitcal Yearbook.
2003.

Chow, Chee W., R. Duh, and J.Z. Xiao
2007 Management accounting practices in the People's Republic of China. *In* Handbook of management accounting research. C. Chapman, A.G. Hopwood, and M.D. Shields, eds. Oxford: Oxford: Oxford University Press.

Chow, Chee W., et al.
1999 Cultural influences on informal information sharing in Chinese and Anglo-American organizations: an exploratory study. Accounting, Organizations and Society 24(7):561-582.

Chow, Chee W., Yutaka Kato, and Kenneth A. Merchant
1996 The use of organizational controls and their effects on data manipulation and management myopia: A Japan vs U.S. comparison. Accounting, Organizations and Society 21(2-3):175-192.

Chow, Chee W., Yutaka Kato, and Michael D. Shields
1994 National culture and the preference for management controls: An exploratory study of the firm--Labor market interface. Accounting, Organizations and Society 19(4-5):381-400.

Chow, Chee W., Michael D. Shields, and Yoke Kai Chan

1991 The effects of management controls and national culture on manufacturing performance: An experimental investigation. Accounting, Organizations and Society 16(3):209-226.

Chua, Wai Fong, and Habib Mahama

2007 The effect of network ties on accounting controls in a supply alliance: field study evidence. Contemporary Accounting Research 24(1):47-92.

Conference, Engineering Industry

1994 The pillar Industry: outlines to energise the car industry. Construction and Design for Project (3):9-12.

Conner, K. R.

1991 A historical comparison of resource based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm? Journal of Management 17(1):121-154.

Contractor, F. J., and P. Lorange

2002 The growth of alliances in the knowledge-based economy. International Business Review 11(4):482-502.

Covaleski, Mark, and Mark Dirsmith

1983 Budgeting as a means for control and lose coupling. Accounting, Organizations and Society 8(4):323-340.

—

1986 The budgetary process of power and politics. Accounting, Organizations and Society 11(3):193-214.

—

1988a An institutional perspective on the rise, social transformation, and fall of a university budget category. Administrative Science Quarterly 33(4):562-587.

—

1988b The use of budgetary symbols in the political arena: an historically informed field study. Accounting, Organizations and Society 13(1):1-24.

Das, T., and B. Teng

2001 Trust, control and risk in strategic alliances: an integrated framework. Organization Studies 22(2):251-283.

Davies, Howard, et al.

1995 The benefits of "Guanxi": The value of relationships in developing the Chinese market. Industrial Marketing Management 24(3):207-214.

Dekker, Henri C.

2004 Control of inter-organizational relationships: evidence on appropriation concerns and coordination requirements. Accounting, Organization and Society 29(1).

Demsetz, Harold

1988 The theory of the firm revisited. Journal of Law, Economics and Organization 4(1):141-162.

Denzin, Norman, and Yvonna Lincoln
2005 Introduction: The dicipline and practice of qualitative research. *In* Handbook of qualitative research. N. Denzin and Y. Lincoln, eds. Thousand Oaks, London: Sage Publications.

DiMaggio, Paul J., and Walter W. Powell
1983 The iron cage revisited: Institutional Isomorphism and rationality in organizational field. American Sociological Review 48(2):147-160.

—
1991a Introduction. *In* The new institutionalism in organizational analysis. W.W. Powell and P.J. DiMaggio, eds. Chicago and London: The University of Chicago Press.

—
1991b The iron cage revisited: institutional isomorphism and collective rationality in organization fields. *In* The new institutionalism in organizational analysis. W.W. Powell and P.J. DiMaggio, eds. Chicago and London: The University of Chicago Press.

Ding, Xiaowu
2009 The "Sincerity" proposition of Confucius' doctrine of the mean and its contemporary implications. Journal of Qinghai Normal Univerity (Philosophy and Social Science) 132(1):28-31.

Dorn, James A., and Xi Wang, eds.
1990 Economic reform in China: problems and prospects. Chicago: Chicago University Press.

Dyer, J.
1997 Effective Interfirm Collaboration: How Firms Minimize Transaction Costs and Maximize Transaction Value. Strategic Management Journal 18(7):535-556.

Dyer, J., and H. Singh
1998 The relational view: cooperative strategy and sources of interorganizational competitive advantage. The Academy of Management Review 23(4):660-679.

Fan, Qimiao, and Peter Nolan, eds.
1993 China's economic reforms: the costs and benefits of incrementalism Basingstoke: MacMillan.

Fang(Tang-Dynasty), Xuanling
1974 History of Jin Dynasty. Beijing: Zhonghua Press.

Farh, Jiing-Lih, et al.
1998 The influence of relational demography and Guanxi; the Chinese case. Organization Science 9(4):471-488.

Faulkner, David

1995 International strategic alliances: Co-operating to compete. London and New York: McGraw-Hill.

Feng, Youlan, ed.
2001 A new history of Chinese philosophy. Beijing: People's Press.

Firth, Michael
1996 The diffusion of managerial accounting procedures in the People's Republic of China and the influence of foreign partnered joint ventures. Accounting, Organizations and Society 21(7/8):629-654.

Flick, Uwe
2002 An introduction to qualitative research. London: Sage.

—
2008 Triangulation in qualitative research. *In* A companion to qualitative research. U. Flick, E.v. Kardorff, and I. Steinke, eds. London, Thousand Oaks, New Delhi: Sage Publications.

Folta, Timothy B.
1998 Governance and uncertainty: the tradeoffs between adminstrative control and commitment. Strategic Management Journal 19(11):1007-1028.

Folta, Timothy B., and Kent D. Miller
2002 Real options in equity partnerships. Strategic Management Journal 23:77-88.

Foucault, Michel
1988 Autobiography: "Michel Foucault, 1926-1984". *In* History of the Present.

—
1991a Governmentality. *In* The Foucault effect: Studies in governmentality. G. Burchell, C. Gordon, and P. Miller, eds. P. 87-104. Chicago: University of Chicago Press.

—
1991b Politics and the study of discourse. *In* The Foucualt effect: Studies in governmentality. G. Burchell, C. Gordon, and P. Miller, eds. P. 53-72. Chicago: University of Chicago Press.

—
1997 On the government of the living. *In* Essential works of Foucault 1954-1984. P. Rabinow, ed. New York: The New Press.

Fu, Jiachen, and Wei Han
2000 The enforcement of ISO system of internation car quality standards is the bridge for Chinese cars to the world The Standardisation of Engineering Industry and Quality (9):11-13.

Galaskiewicz, J.
1991 Making corporate actors accountable: institution-building in Minneapolis - St. Paul. *In* The new institutionalism in organizational analysis. W.W. Powell and P.J. DiMaggio, eds. Chicago and London: The University of Chicago Press.

Gao, Shangquan
1996 China's economic reform. New York, London: St. Martin's Press, Macmillan Press.
Geringer, J. Michael
1991 Strategic Determinants of Partner Selection Criteria in International Joint Ventures Journal of International Business Studies 22(1):41-62.
Geringer, J. Michael, and Louis Hebert
1989 Control and performance of international joint ventures. Journal of International Business Studies 20(2):235-254.
—
1991 Measuring performance of international joint ventures. Journal of International Business Studies 22(2):249-263.
Groot, Tom L.C.M., and Kenneth A. Merchant
2000 Control of international joint ventures. Accounting, Organizations and Society 25(6):579-607.
Gulati, Ranjay, Nitin Nohria, and Akbar Zaheer
2000 Strategic Networks. Strategic Management Journal 21(2):203-215.
Hakansson, H., and J. Lind
2007 Accounting in an interorganizational setting. *In* Handbook of management accounting research. C. Chapman, A.G. Hopwood, and M.D. Shields, eds. Oxford: Oxford University Press.
Hamel, G.
1991 Competition for Competence and Inter-Partner Learning Within International Strategic Alliances. Strategic Management Journal 12(1):83-103.
Hamel, G., and C Prahalad
1994 Competing for the future. Boston: Harvard Business School Press.
Harrigan, Kathryn Rudie
1988 Joint Ventures and Competitive Strategy Strategic Management Journal 9(2):141-158.
Heelas, Paul, and Paul Morris
1992 Enterprise culture: its values and value. *In* The Values of the enterprise culture : the moral debate. P. Heelas and P. Morris, eds. London: Routledge.
Hennart, Jean-Francois
1988 A transaction costs theory of equity joint ventures. Strategic Management Journal 9(4):361-374.
—
1991 The Transaction Costs Theory of Joint Ventures: An Empirical Study of Japanese Subsidiaries in the United States. Management Science 37(4):483-497.

Hines, Ruth D.
1988 Financial accounting: In communicating reality, we construct reality. Accounting, Organization and Society 13(3):251-261.
Hirsch, Paul M., and Michael Lounsbury
1997 Ending the family quarrel: Towards a reconciliation of "Old" and "New" institutionalism. American Behavioural Scicentist 40(4):406-418.
Hoffman, Lisa
2006 Autonomous choices and patriotic professionalism: On governmentality in late-socialist China. Economy and Society 35(4):550-570.
Hopper, Trevor, and Maria Major
2007 Extending institutional analysis through theoretical triangulation: Regualtion and Activity-Based Costing in Portuguese Telecommunications. European Accounting Review 16(1):59-97.
Hopper, Trevor; Macintosh, Norman
1998 Management Accounting Numbers: Freedom or Prison - Geneen versus Foucault. *In* Managing Foucault: Foucault, Management and Organization Theory. A.S. Mckinlay, Ken, ed. London, Thousand Oaks, New Delhi: Sage.
Hopwood, Anthony G.
1983 On trying to study accounting in the contexts in which it operates. Accounting, Organizations and Society 8(2-3):287-305.
—
1987 The archaeology of accounting systems. Accounting, Organizations and Society 12(3):207-234.
Hopwood, Anthony G., and Peter Miller
1994 Accounting as social and institutional practice. Cambridge: Cambridge Univeristy Press.
Hoskin, Keith W., and Richard H. Macve
1986 Accounting and the examination: A genealogy of disciplinary power. Accounting, Organizations and Society 11(2):105-136.
—
1988 The genesis of accountability: The west point connections. Accounting, Organizations and Society 13(1):37-73.
Hu, Ziyang
1996 The strategy for the development of Chinese pillar industries: Economic Adminstration Press.
Huang, Wei
2008 A brief discussion on the meaning and characteristics of "the Doctrine of the Mean". Science and Technology Information 34(172-172).
Hwang, K. K.

1987 Face and favor: The Chinese power game. American Journal of Sociology 92:944-974.

Ingram, P.

2001 Changing the rules: interests, organizations, and institutional change in the U.S. hospitality industry. *In* The new institutionalism in sociology. M. Brinton and V. Nee, eds. Stanford: Stanford University Press.

Inkpen, A.

1995 The management of itnernational joint ventures: an organizational learning perspective. London: Routledge.

—

1998 Learning, Knowledge Acquisition, and Strategic Alliances European Management Journal 16(2):223-229.

Inkpen, A., and Paul W. Beamish

1997 Knowledge, Bargaining Power, and the Instability of International Joint Ventures The Academy of Management Review 22(1):177-202.

Investment Research Institute of People's Bank of China.

1984 The car industry is going to have a big development: An investigation to national car industry. China Industrial Economy (3).

Jepperson, R., and J. Meyer

1991 The public order and the construction of formal organisations. *In* The new institutionalism in organizational analysis. W.W. Powell and P.J. DiMaggio, eds. Chicago and London: The University of Chicago Press.

Ji, Jie

1985 Inroduce advanced technology to speed up the development of the national car industry. China Industrial Economy (3):2-7.

Kamminga, P.E., and J. Van der Meer-Kooistra

2007 Management control patterns in joint venture relationships: a model and an exploratory study. Accounting, Organizations and Society 32(1-2):131-154.

Khandwalla, Pradip N.

1972 The effect of different types of competition on the use of managment controls. Journal of Accounting research 10(2):275-285.

King, A. Y.

1991 Kuan-hsi and network building: A sociological interpretation. Daedalus 120(2):63-84.

Kogut, Bruce

1988 Joint Ventures: Theoretical and Empirical Perspectives Strategic Management Journal 9(4):319-332.

—

1991 Joint Ventures and the Option to Expand and Acquire Management Science 37(1):19-33.

Langfield-Smith, Kim
1997 Management control systems and strategy: A critical review. Accounting, Organizations and Society 22(2):207-232.
Li, Chunren
2000 The implications of "the doctrine of the mean" on our society and the attitude to take. History and Philosophy (1):79-82.
Li, Jingsheng
1988 The Implications of developing the passenger car industry and the understanding of its conditions. Quantitative and Technological Economics Studies (1):18-23.
Li, Peter Ping
2007 *Guanxi* as the Chinese norm for personalized social capital: toward an integrated duality framework of informal exchange. *In* Hand book of research on Asian business. H.W.-C. Yeung, ed. Glos, UK; Northampton, USA: Edward Elgar Publishing Limited.
Li, Songling
1994 Considerations on the brand making of FAW products. China Quality.
Liew, Leong
1997 The Chinese economy in transition: from plan to market Cheltenham, UK: Elgar.
Lin, Qingguo
1993 The feasibility of the industrial policies to develop the national car industry. Economic Research Journal (9):51-55.
Liu, Guoqiang
2003 Beidaihe Meeting and the decision to develop Chinese car industry: Chinese Commercial Newspaper.
Liu, Na
2008 Research on the current implications of the Doctrine of the Mean Management (3):271-272.
Liu, Yutao
2000a The challenges and opportunities to the car industry after joining WTO. *In* Morden Automobile.
—
2000b FAW-VW in the face of WTO. Enterprise Cultures (6):34-35.
Lounsbury, Michael
2002 Institutional transformation and status mobility: the professionalization of the field of finance. Academy of Management Journal 45(1):255-266.
—
2007 A tale of two cities: competing logics and practice variation in the professionalizing of mutual funds. Academy of Management Journal 50(2):289-307.
—

2008 Institutional rationality and practice variation: new directions in the institutional analysis of practice. Accounting, Organizations and Society 33(4-5):349-361.

Lu, Zhiqiang, and Xiaohong Chen
1989 The empirical analysis of the development of enterprises in the national car industry China Industrial Economy (1):2-11.

Luo, Y.
2002 Building trust in cross-cultural collaborations: towards a contingency perspective. Journal of Management 28(5):669-694.

Macintosh, Norman B.
1994 Management accounting and control systems: an organizational and behavioral approach Chichester, England: J. Wiley.

McKinlay, Alan; Starkey, Ken
1998 Managing Foucault: Foucault, Management and Organization Theory. *In* Managing Foucault: Foucault, Management and Organization Theory. A.S. Mckinlay, Ken, ed. London, Thousand Oaks, New Delhi: Sage.

Merchant, Kenneth A., and Wim Van der Stede
2007 Management control systems: performance measurement, evaluation and incentives. Harlow, England: Financial Times/Prentice Hall.

Meyer, J., and B. Rowan
1977 Institutionalized organizations: formal structure as myth and ceremony. The American Journal of Sociology 83(2):340-363.

—
1992 The structure of educational organizations. *In* Organizational environments: ritual and rationality. J. Meyer and W. Scott, eds. London: Sage.

Meyer, J., W. Scott, and T. Deal
1992 Institutional and technical sources of organizational structure: expanding the structure of educational organizations. *In* Organizational environments: ritual and rationality. J. Meyer and W. Scott, eds. London: Sage.

Miller, Peter
1990 On the interrelations between accounting and the state. Accounting, Organizations and Society 15(4):315-388.

—
1991 Accounting innovation beyond the enterprise: Problematizing investment decisions and programming economic growth in the UK in the 1960s. Accounting, Organizations and Society 16(8):733-762.

—
1994 Accounting as social and institutional practice: an introduction. *In* Accounting as social and institutional practice. A.G. Hopwood and P. Miller, eds. P. 1-39. Cambridge: Cambridge University Press.

—
2004 Governing by Numbers: Why Calculative Practices Matter. *In* Cultural Economy Reader. A. Amin and N. Thrift, eds: The Blackwell.
Miller, Peter, Liisa Kurunmaki, and Ted O'Leary
2008 Accounting, hybrids and the management of risk. Accounting, Organizations and Society 33(7-8):942-967.
Miller, Peter, and Ted O'Leary
1987 Accounting and the construction of the governable person. Accounting, Organizations and Society 12(3):235-265.
—
1994a Accounting, "economic citizenship" and the spatial reordering of manufacture. Accounting, Organizations and Society 19(1):15-43.
—
1994b The factory as laboratory. *In* Accounting and science: Natural inquiry and commercial reason. M. Power, ed. P. 120-150. Cambridge: Cambridge University Press.
—
2007 Mediating instruments and making markets: Capital budgeting, science and the economy. Accounting, Organizations and Society 32(7-8):701-734.
Miller, Peter, and Michael Power
1992 Accounting, law and economic calculation. *In* Accounting and the Law. M. Bromwich and A.G. Hopwood, eds. Hemel Hempstead: Prentice Hall.
Miller, Peter, and Nikolas Rose
1988 The Tavistock programme: the government of subjectivity and social life. Sociology 22:172-192.
—
1990 Governing economic life. Economy and Society 19(1):1-31.
—
2008 Governing the present: Adminsitering economic, social and personal life. Cambridge: Polity Press.
Mjoen, Hans, and Stephen B. Tallman
1997 Control and performance in international joint ventures. Organization Science 8(3):257-274.
O'Connor, Neale G., Chee W. Chow, and Anne Wu
2004 The adoption of "Western" management accounting/controls in China's state-owned enterprises during economic transition. Accounting, Organizations and Society 29(3-4):349-375.
O'Connor, Neale G., J. Deng, and Y. Luo
2006 Political constraints, organization design and performance measurement in China's state-owned enterprises. . Accounting, Organizations and Society 31(3-4):151-177.
O'Malley, Pat, Lorna Weir, and Clifford Shearing

1997 Governmentality, criticism, politics. Economy and Society 26(4):501-517.

Orru, M., N.W. Biggart, and G.G. Hamilton
1991 Organizational isomophism in East Asia. *In* The New Institutionalism in Organizational Analysis. W.W. Powell and P.J. DiMaggio, eds. P. 361-389. Chicago: Chinago University Press.

Otley, David
1994 Management control in contemporary organizations: towards a wider framework. Management Accounting Research 5(3-4):289-299.

Ouchi, William G.
1979 A Conceptual Framework for the Design of Organizational Control Mechanisms. Management Science 25(9):833-848.

—
1980 Market, bureaucracies and clans. Administrative Science Quarterly 25:129-141.

Palmer, Donald, et al.
1995 The friendly and predatory acquisition of large US corporations in the 1960s: The other contested terrain. American Sociological Review 60(4):469-499.

Palmer, Donald, P. Deveraux Jennings, and Xueguang Zhou
1993 Late adoption of the multidivisional form by large US corporations: Institutional, political, and economic accounts. Administrative Science Quarterly 38(1):100-131.

Park, Seung Ho, and Yadong Luo
2001 Guanxi and Organizational Dynamics: Organizational Networking in Chinese Firms Strategic Management Journal 22(5):455-477.

Parkhe, Arvind
1993 Strategic Alliance Structuring: A Game Theoretic and Transaction Cost Examination of Interfirm Cooperation. The Academy of Management Journal 36(4):794-829.

Pfeffer, Jeffrey, and G. R. Slancik
1978 The external control of organizations: a resource dependecy perspective. New York: Harper & Row.

Poppo, Laura, and Todd Zenger
2002 Do formal contracts and relational governance function as substitutes or complements? Strategic Management Journal 23(8):707-725.

Powell, Walter W., and Paul J. DiMaggio, eds.
1991 The new institutionalism in organization analysis. Chicago and London: The University of Chicago Press.

Qin, Huanming
2004 Huanming Qin: Cost is the Prime Signal. People's Daily.

Rose, Nikolas

1988 Calculable minds and manageable individuals. History of the Human Sciences 1(2):179-200.

—

1991 Governing by numbers: Figuring out democracy. Accounting, Organizations and Society 16(7):673-692.

—

1992 Governing the enterprising self. *In* The values of the enterprise culture: The moral debate. P. Heelas and P. Morris, eds. New York, USA: Routledge.

—

1996 Governing "advanced" liberal democracies. *In* Foucault and political reason: Liberalism, neo-liberalism and rationalities of government. A. Barry, T. Osborne, and N. Rose, eds. London: Routledge.

Rose, Nikolas, and Peter Miller

1992 Political power beyond the state: Problematics of government. British Journal of Sociology 43(2):173-205.

Scapens, Robert W., and Meng Yan

1993 Management accounting research in China. Management Accounting Research 4(4):321-341.

Scott, W.

1992a Health care organizations in the 1980s: the convergence of public and professional control systems. *In* Organizational environments: ritual and rationality. J. Meyer and W. Scott, eds. London: Sage.

—

1992b The organization of environment: network, cultural and historical elements. *In* Organizational environments: ritual and rationality. J. Meyer and W. Scott, eds. London: Sage.

—

1992c Reform movements and organizations: the case of aging. *In* Organizational environments: ritual and rationality. J. Meyer and W. Scott, eds. London: Sage.

—, ed.

1995 Institutions and organizations. Newbury Park, CA: Sage.

Scott, W., and J. Meyer

1992 The organization of societal sectors. *In* Organizational environments: ritual and rationality. J. Meyer and W. Scott, eds. London: Sage.

Scott, W., et al.

2002 Institutional change and healthcare organizations: from professional dominance to managed care. Chicago: The University of Chicago Press.

Shen, Raphael

2000 China's economic reform: an experiment in pragmatic socialism. Westport: Praeger.
Shen(Liang-Dynasty), Yue
1974 History of Song Dynasty. Beijing: Zhonghua Press.
Sheng, Hong
1986 Ways to realise the rational organisations of the national car industry. China Industrial Economy (5):109-120.
Sigley, Gary
1996 Governing Chinese bodies: The significance of studies in the concept of governmentality for the analysis of government in China. Economy and Society 25(4):457-482.
—
2006 Chinese governmentalities: Government, governance and the socialist market economy. Economy and Society 35(4):487-508.
Simons, Robert
1995 Levers of control: How managers use innovative control systems to drive strategic renewal. Boston, Mass: Harvard Business School Press.
Sina Auto.
2008 Zuyan Chen's Memories of Shiyan Meeting: The Proposition of Pillar Industry. *In* Chinese car industry for 30 years. A. Li, ed.
Strange, David, and Sarah Soule
1998 Diffusion in organizations and social movements: From hybrid corn to poison pills. Annual Review of Sociology 24(1):265-290.
Su, Xing
2008 Deng Xiaoping's theory of socialist market economy and Chinese economic reform: People's Press.
Tannenbaum, Arnold
1968 Control in organizations. New York: McGraw-Hill.
Teece, David J., Gary Pisano, and Amy Shuen
1997 Dynamic capabilities and strategic management. Strategic Management Journal 18(7):509-533.
The First Automobile Work Group.
1995 Vitalise the national autombile industry relying on technology advancement. Enterprise Technology (4):28-30.
The Ministry of Machinery Industry.
1994 Notice on the quality management for the automobile machinery industry.
—
1996 About fighting "the three battles".
The public relation division of FAW.
1996 The First Automobile Workshop: the cradle of Chinese car industry. China foreign trade (7):22.
The State Council.

1985 CPC Central Committee's proposal for the seventh national economic and social development five-year plan.

—

1986 The Seventh National Economic and Social Development Five-Year Plan.

—

1994 Automobile Industrial Policy.

—

1995 CPC Central Committee's Proposal for the Ninth Five-Year Plan of National Eoncomic and Social Development.

Thornton, P.H., and W. Ocasio

1999 Institutional logics and the historical contingency of power in organizations: executive succession in the higher education publishing industry, 1958-1990. American Journal of Sociology 105(3):801-843.

Tobert, Pamela S., and Lynne G. Zucker

1983 Institutional sources of changes in the formal structure of organizations: The diffusion of civil service reform. Administrative Science Quarterly 28(1):22-39.

Tomkins, Cyril

2001 Interdependicies, trust and information in relationshiops, alliances and networks. Accounting, Organization and Society 26(2):161-191.

Tsang, Eric W. K.

1998 Can Guanxi be a source of sustained competitive advantage for doing business in China? Academy of Management Executive 12(2):64-73.

Tsui, A. S., and J. L. Farh

1997 Where Guanxi matters: Relational demography and Guanxi in the Chinese context. Work and Occupations 24(1):56-79.

Unknown Author.

1995a The development goals for the automobile industry during the period of the ninth five-year plan. China Economy Information (9):13.

—

1995b Strengthen enterprise quality work to create opportunities for machinery industry China Devices (1):35.

Vélez, Maria L., José M. Sánchez, and Concha Álvarez-Dardet

2008 Management control systems as inter-organizational trust builders in evolving relationships: Evidence from a longitudinal case study. Accounting, Organization and Society 33(7-8):968-994.

Van den Bulte, Christophe, and Gary L. Lilien

2001 Medical innovation revisited: Social contagion versus marketing effort. American Journal of Sociology 106(5):1409-35.

Van der Meer-Kooistra, J., and Ed Vosselman

2000 Management control of inter-firm transactional relationships: the case of industrial renovation and maintenance. Accounting, Organization and Society 25(1):51-77.
Vosselman, Ed, and Jeltje Van der Meer-Kooistra
2009 Accounting for control and trust building in interfirm transactional relationships. Accounting, organizations and society 34(2):267-283.
Wan, Yi
1995 The status and prospects of China's automobile industry. Shanghai Enterprise 150(4):27-29.
Wang, Dongyang
2007 The Research on the Tenure in Office from WeiJin to Sui Dynasty. Lanzhou Research 161(2):161-164.
Wang, Naixin
1986 Why the car industry needs to be come the pillar industry? Autonmobile and Parts Technology (4):6-8.
Wang, Wensheng, and Yueru Ma
2008 The Doctrine of the Mean and its realtion to the social stability. Journal of Central South University (Social Science) 14(4):493-498.
Wang, Zhenzhong
2010 The development and prospect of China's economy and society: Social Science Literature Press.
Wei, Shimei
2009 The connotative meaning of the doctorine of the mean of Confucius and its modern implications. Theory and Reform (1):98-100.
Wei, Xiaoyuan
2000 The implications for the national car industry of joining WTO and the responses to take. China Development Bank.
Wei(Tang-Dynasty), Zheng
1973 History of Sui Dynasty. Beijing: Zhonghua Press.
Weick, Karl E.
1976 Educational organizations as loosely coupled systems. Administrative Science Quarterly 21(1):1-19.
Wernerfelt, B.
1984 A resource-based view of the firm. Strategic Management Journal 5(2):171-180.
Williamson, Oliver E.
1975 Markets and Hierarchies. New York: Free Press.
—
1985 The economic institution of capitalism. New York: Free Press.
—
1991 Comparative economic organization: The analysis of discrete structural alternatives. Administrative Science Quarterly 36(2):269-296.
Xin, KR, and JL. Pearce

1996 Guanxi: connections as substitutes for formal institutional support. Academy of Management Journal 39(6):1641-1658.

Yan, Aimin, and Barbara Gray

1994 Bargaining power, managment control, and performance in United States-China joint venture: a comparative case study. Academy of Management Journal 37(6):1478-1517.

Yang, M.

1994 Gifts, Favors and Banquets: The art of social relationships in China. New York: Cornell University Press.

Yang, Tongbin

1995 Chinese automobile industry in the eyes of foreign experts. Automobile Market (13).

Yu, Jianfu

2008 The influence of "the Doctrine of the Mean" on personal characters and its social value. Journal of National Academy of Education Adminstration (5):70-77.

Yu, Peiwei, and Qingjun Xu

2002 The new direction of development of the Chinese car industry after joining WTO. Research Division of International Business and Economics.

Yuan, Guorun

1995 Problems in China's automobile industry and its countermeasures. Science and Technology, Guangdong (2):24-28.

Zang, Yaoru

1994 The strategy choices for developing the national car industry. Social Science Journal (4):66-69.

Zhang, Pan, and Zhiqing Lu

1987 The choices faced by the automobile industry. Quantitative and Technological Economics Studies (5):8-13.

Zhang, Tianyuan

1994 The road to promote the car industry. Research on Financial and Economic Issues (2):15-17.

Zhang, Ting

2008 The Doctrine of the Mean and its combination with organization management. The Academy of the Hangzhou's Central School for Communists (5):90-92.

Zhang, Yanbing

2009 An insight to "the Doctrine of the Mean" of Confucius. Economy and Law (5):290.

Zhang, Yanjie, Zhenfeng Liu, and Ying Yu

2008 The modern value of the Doctrine of the Mean. Journal of the Party School of CPC Zhengzhou Municipal Committee 93(3):114-115.

Zhang(Qing-Dynasty), Yanyu

1974 History of Ming Dynasty. 330 vols. Volume 213. Beijing: Zhonghua Press.

Zheng, Lixin, and Rong Shen
1991 The car industry should become the pillar Industry in 1990s. China Industrial Economy (6):53-56.
Zheng, Mengxuan
2008 A reading into the Doctrine of the Mean. Academy of Lingnan (3):125-127.

Appendices

1 List of interviewees

Interviewees	Department	Duration	Record
Manager No.1	Control Department	32 min	Taped, partly transcribed and translated
Employee No.2	Control Department	21 min	Notes
Manager No.3	Factory Plants	42 min	Taped, partly transcribed and translated
Employee No.4	Factory Plants	50 min	Taped, partly transcribed and translated
Employee No.5	Factory Plants	75 min	Taped, partly transcribed and translated
Manager No.6 (German)	Factory Plants	35 min	Taped and transcribed
Manager No.7 (German)	Factory Plants	30 min	Taped and transcribed
Manager No.8	Finance Department	62 min	Taped, partly transcribed and translated
Employee No.9	Finance Department	37 min	Taped, partly transcribed and translated
Manager No.11	Management Department	40 min	Taped and partly transcribed
Employee No.11 (German)	Management Department	65 min	Taped and transcribed
Employee No.12	Marketing Department	20 min	Taped and partly transcribed
Manager No.13	Planning Department	30 min	Notes
Employee No.14	Planning Department	43 min	Taped, partly transcribed and translated
Manager No.15 (German)	Planning Department	45 min	Taped and transcribed
Manager No.16	Product Department	65 min	Taped, partly transcribed and translated
Employee No.17	Product Department	35 min	Taped, partly transcribed

				and translated
Employee	No.18	Production Management Department	40 min	Taped, partly transcribed and translated
Employee	No.19	Production Management Department	27 min	Notes
Manager (German)	No.20	Production Management Department	45 min	Taped and transcribed
Manager	No.21	Purchasing Department	85 min	Taped, partly transcribed and translated
Manager	No.22	Quality Assurance Department	35 min	Taped, partly transcribed and translated
Employee	No.23	Quality Assurance Department	42 min	Taped, partly transcribed and translated
Employee	No.24	Sales Department	20 min	Taped and partly transcribed

2 Output of the Chinese Automobile Industries[39]

Year	Number of Different Kinds of Vehicles Produced	Number of Passenger Cars Produced[40]
1972	108,227	661
1973	116,193	1,130
1974	104,771	1,508
1975	139,800	1,819
1976	135,200	2,611
1977	125,400	2,330
1978	149,062	2,640
1979	185,700	4,152
1980	222,288	5,418
1981	175,645	3,428
1982	196,304	4,030
1983	239,886	6,046
1984	316,367	6,010
1985	443,377	5,207
1986	372,753	12,297
1987	472,538	29,865
1988	646,951	36,798
1989	586,935	28,820
1990	509,242	42,409
1991	708,820	81,055
1992	1,061,721	162,725
1993	1,296,778	229,697
1994	1,353,368	250,333
1995	1,452,697	325,461

[39] Source:http://www.aojauto.com/html/KeepData/20070119145921071191459212054 7.shtml
[40] The number of imported cars has increased from 41,600 in 1981 to 314,100 in 2007.

1996	1,474,905	391,099
1997	1,582,628	487,695
1998	1,629,182	507,861
1999	1,831,596	566,105
2000	2,068,186	607,455
2001	2,341,528	703,525
2002	3,253,655	1,092,762
2003	4,443,522	2,037,865
2004	5,070,527	2,316,300
2005	5,705,000	2,767,700