CANDIDATE DECLARATION

*I certify that the thesis entitled:*

The Relationship between Workplace Reform and Workforce Participation

submitted for the degree of

Doctor of Philosophy

is the result of my own research, except where otherwise acknowledged, and that this thesis in whole or in part has not been submitted for an award, including a higher degree, to any other university or institution.

*Full Name: Sandra Jones*  
*(Please Print)*

Signed

..................................................................................……………….

Date......................................................................................……………….

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ACKNOWLEDGMENTS

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I would like to thank my supervisor Professor Malcolm Rimmer for his guidance and assistance in writing the thesis. I would also like to make special mention of colleagues Richard Gough and Graham Matthews who gave of their valuable time to read the final draft of the thesis.

Finally I would like to thank my family, Andrew Guthrie my partner, and my two wonderful children, Aislinn and Kelsey, who often had to put up with a distracted mother. No thesis of mine would be complete without mention of the person for whom this thesis was ultimately completed – my sister Christine whose untimely death prevented her from completing her thesis.
This thesis sought to advance understanding of the politics of workplace reform, explaining the respective roles of management and employees and how they relate.

The literature on workplace reform usually argues that reform is predicated on greater workforce participation in managerial decisions. More specifically, different approaches to workplace reform can be aligned to different forms of participation. Thus quality management can be associated with direct forms of participation, institutional workplace reform may depend on representative forms, and best practice may require a combination of both.

This thesis uses empirical evidence to explore this alignment between the different approaches to workplace reform and forms of participation.

The period chosen for empirical study is approximately 1985-1992 – an era of rapid innovation in workplace reform for Australian manufacturing. Three workplaces were chosen for intensive study from automotive component manufacturers because that industry was itself a laboratory for workplace reform and also because these firms exemplified different approaches to competitiveness and reform.

Three approaches to workplace reform – quality management, institutional workplace reform, and best practice – were distinguished to capture the range of Australian practice at that time. Similarly two approaches to workplace participation were distinguished – direct and representative – to reflect the range of observable practices at that time and to represent competing philosophies. Direct participation illustrated an approach founded in managerial context of the political status quo, whilst representative forms were considered to permit a pluralist shift of power to enable employees to manage in place of management.

The three case studies depict companies sharing the competitive crisis of their industry. From this stems the impetus for workplace reform. At this point the firms diverged in their choice of competitive strategies for workplace reform.

The case studies reveal, at the superficial level, a match between the chosen approaches to workplace reform and forms of participation. Basically, quality management is associated with direct employee participation, institutional workplace reform with collective bargaining and representative consultative committees, and best practice with both. However when the implementation of reform and participation are examined this match becomes less significant. One firm, Auto Air, achieved highly effective outcomes in both reform and participation. Another firm, Auto Electrical, failed in both.

The thesis concluded that the relationship between forms of participation and reform is less significant than the effective implementation of policy. Unitarist or pluralist approaches to power distribution count less than managerial capacity to integrate successive reform initiatives and their commitment to workforce participation in change.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANDIDATE DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xiv</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xxii</td>
</tr>
</tbody>
</table>

## CHAPTER ONE

**Introduction**
- Introduction: 1
- Research Design: 8
- Summary and Thesis Plan: 12

## CHAPTER TWO

**Workplace Reform and Workforce Participation**
- Introduction: 14
- Workplace Reform: 14
- Quality Management: 16
- Institutional Workplace Reform: 26
- Best Practice: 34
- Workforce Participation: 41
- Representative Workforce Participation: 42
- Direct Workforce Participation: 45
- The Problem: 48
- Conclusion: 49

## CHAPTER THREE

**The Australian Automotive Industry**
- Introduction: 52
Australian Manufacturing 53
  Developments in the Australian Automotive Industry 55
  Australian Automotive Industry – The Product Market 59
  Performance Measures 65
  Performance Outcomes: The 1991 Crisis 72
  Workplace Reform in the Australian Automotive Industry 73
  Postscript 80
  Conclusion 81

CHAPTER FOUR
Auto Electrical (I) 83
Engineering Competitiveness Through Advanced Technology
  Introduction 83
  Auto Electrical: Ownership and Corporate Role 84
  Product 84
  Market 86
  Costs 86
  Organisational Structure 87
  Corporate Plan 90
  Work Organisation 90
  Management 99
  Human Resource Management 101
  Wages and Industrial Relations 104
  Pressures for Change 107
  Summary 110

CHAPTER FIVE
Auto Electrical (II) 113
Management Controlled Reform
  Introduction 113
  Quality Management Reform 114
    Management Related Change 116
    Employee Related Change – Production 119
    Employee Related Change – Specialist 121
  Institutional Workplace Reform 122
    Two Tier 123
    Award Restructuring 124
    Enterprise Agreements 125
  Best Practice Reform 127
  Workforce Participation 129
    Direct Workforce Participation 129
    Representative Workforce Participation 133
      Central Consultative Committee 1989-1991 134
      Central Consultative Committee A&B 1992 138
      Central Consultative Committee 1993 143
  Workplace Reform and Workforce Participation 145
  Conclusion 146

vi
##CHAPTER SIX
Auto Mechanical (I)

*Survival Through Global Rationalisation*

- Introduction: 148
- Auto Mechanical: Ownership and Corporate Role: 148
- Product: 150
- Market: 152
- Costs: 152
- Organisational Structure: 153
- Corporate Plan: 155
- Work Organisation: 156
- Management: 163
- Human Resource Management: 165
- Wages and Industrial Relations: 167
- Pressures for Change: 167
- Summary: 169

##CHAPTER SEVEN
Auto Mechanical (II)

*Workplace Reform through Consultation*

- Introduction: 173
- Quality Management Reform: 174
  - Management Related Change: 176
  - Joint Management and Employee Related Change: 177
- Institutional Workplace Reform: 181
  - Two Tier: 183
  - Award Restructuring: 183
  - Enterprise Agreements: 186
  - Management Commitment: 187
  - Employee Commitment: 188
- Best Practice Reform: 191
- Workforce Participation: 197
  - Direct Workforce Participation: 198
  - Representative Workforce Participation: 201
    - Joint Consultative Committee 1989-1992: 201
    - Joint Consultative Committee 1992-1993: 208
- Conclusion: 215

##CHAPTER EIGHT
Auto Air (I)

*Competing Through Growth*

- Introduction: 217
- Auto Air: Ownership and Corporate Role: 218
- Product: 218
- Market: 219
- Costs: 220
Organisational Structure 220
Corporate Plan 222
Work Organisation 223
Management 228
Human Resource Management 232
Wages and Industrial Relations 233
Pressures for Change 234
Summary 237

CHAPTER NINE
Auto Air (II) 239

Integrating Reform and Participation
Introduction 239
Quality Management Reform 241
  Management Related Change 243
  Employee Related Change – Production 245
  Employee Related Change – Specialists 245
Institutional Workplace Reform 247
  Two Tier 247
  Award Restructuring 248
  Enterprise Agreement 249
  Productivity Agreement 250
Best Practice Reform 252
  Strategy 254
  Operational Practice 256
    Stage One 256
    Stage Two 259
    Stage Three 260
    Stage Four 262
Workforce Participation 267
Direct Workforce Participation 268
  Process Improvement Groups 268
  Semi-Autonomous Work Groups 270
Representative Workforce Participation 272
  Employee Participation Group 274
  Auto Air Group Award Restructuring Steering Committee 276
  Award Restructuring Working Party Committee 278
  Training Sub-Committee 281
Workplace Reform and Workforce Participation 283
Conclusion 284

CHAPTER TEN
Conclusion - Aligning Workplace Reform and Workforce Participation
Introduction 286
The Companies 298
Pressure for Reform 290
Workplace Reform 292
# LIST OF FIGURES

## Chapter Two

**Figure 2.1**
Australian Best Practice Demonstration Program  
Principles of Best Practice 37

**Figure 2.2**
Elements of Best Practice 38

## Chapter Three

**Figure 3.1**
PMV Assemblers, Gross Investment Expenditure  

## Chapter Four

**Figure 4.1**
Auto Electrical  
Analysis of Cost Distribution 1992 87

**Figure 4.2**
Auto Electrical  
Organisational Chart - Divisions and Departments 1992 88

**Figure 4.3**
Auto Electrical  
Employment Distribution by Department 1992 89

**Figure 4.4**
Production Flow Chart 1992 91

**Figure 4.5**
Auto Electrical  
Classification of Plant Workforce 1992 95

**Figure 4.6**
Auto Electrical  
Expenditure on Training 1992 96

**Figure 4.7**
Auto Electrical ER&D Division  
Classification of Workforce 1992 97

**Figure 4.8**
Auto Electrical  
Classification of Workforce 1992 98
<table>
<thead>
<tr>
<th>Figure 4.9</th>
<th>Auto Electrical Organisational Chart Management 1992</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 4.10</td>
<td>Auto Electrical Union Membership Distribution 1992</td>
<td>106</td>
</tr>
<tr>
<td>Figure 4.11</td>
<td>Auto Electrical Employment 1988-1993</td>
<td>109</td>
</tr>
</tbody>
</table>

**Chapter Five**

<table>
<thead>
<tr>
<th>Figure 5.1</th>
<th>Auto Electrical Quality Council Communication Process 1989-1993</th>
<th>117</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.2</td>
<td>Auto Electrical Consultative Committee A Meetings 1989-1993</td>
<td>140</td>
</tr>
<tr>
<td>Figure 5.3</td>
<td>Auto Electrical Central Consultative Committees Sub-Committees 1992 &amp; 1993</td>
<td>141</td>
</tr>
</tbody>
</table>

**Chapter Six**

<table>
<thead>
<tr>
<th>Figure 6.1</th>
<th>Auto Mechanical Analysis of Cost Distribution 1992</th>
<th>153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 6.2</td>
<td>Auto Mechanical Organisational Chart - Departments 1992</td>
<td>154</td>
</tr>
<tr>
<td>Figure 6.3</td>
<td>Auto Mechanical Employment Distribution by Department 1992</td>
<td>155</td>
</tr>
<tr>
<td>Figure 6.4</td>
<td>Auto Mechanical Classification of Production Workforce 1992</td>
<td>159</td>
</tr>
<tr>
<td>Figure 6.5</td>
<td>Auto Mechanical Employee Training Program - Hours per annum 1989-1991</td>
<td>160</td>
</tr>
<tr>
<td>Figure 6.6</td>
<td>Auto Mechanical Classification of Workforce 1992</td>
<td>163</td>
</tr>
<tr>
<td>Figure 6.7</td>
<td>Auto Mechanical Organisational Chart Management 1992</td>
<td>164</td>
</tr>
</tbody>
</table>
Figure 6.8  Auto Mechanical Employment 1987-1992 169

Chapter Seven
Figure 7.1  International Corporation Credo 191
Figure 7.2  Auto Mechanical Consultative Committee Meetings 1989-1993 203
Figure 7.3  Auto Mechanical Consultative Committee Sub-Committees 1989-1992 204

Chapter Eight
Figure 8.1  Auto Air Analysis of Cost Distribution 1990 220
Figure 8.2  Auto Air Organisational Chart - Departments 1990 221
Figure 8.3  Auto Air Employment Distribution by Department 1990 222
Figure 8.4  Auto Air Classification of Manufacturing Workforce 1990 225
Figure 8.5  Auto Air Classification of Workforce 1990 228
Figure 8.6  Auto Air Organisational Chart Management 1991 229
Figure 8.7  Auto Air Employment 1988-1993 237

Chapter Nine
Figure 9.1  Auto Air Organisational Chart - Manufacturing 1992 257
Figure 9.2  Auto Air Organisational Chart - Business Units 1992 260
Figure 9.3  Auto Air Organisational Chart – Management 1992 262
Chapter Ten

Figure 10.1  Cross Company Comparisons
Total Company sales 1988-1993 (SM)  291

Figure 10.2  Cross Company Comparisons - Employment 1988-1993  291
LIST OF TABLES

Chapter Two

Table 2.1 Incidence of Quality Initiatives in Australian Workplaces 1990 - 1995 23

Table 2.2 Management Objectives for Quality Circles 1995 25

Table 2.3 Issues Covered by Enterprise Agreements 1995 31

Table 2.4 Work Organisation Provisions in Enterprise Agreements 1995 31

Table 2.5 Incidence of Joint Consultative Committees in Australian Workplaces 1990 and 1995 32

Table 2.6 Management Objectives for Joint Consultative Committees 33

Table 2.7 Teams and Employee Empowerment 39

Table 2.8 Incidence of Semi-Autonomous Work Groups in Australian Workplaces 1995 40

Table 2.9 Issues with which Consultative Committees have Authority to Deal 1995 45

Table 2.10 Impact of Joint Consultative Committees 1995 45

Table 2.11 Impact of Quality Circles and Semi-Autonomous Work Groups on Workforce Participation Management View 1995 47

Table 2.12 Impact of Semi-Autonomous Work Groups and Quality Circles on Workforce Participation Workplace Representatives View 1995 48

Table 2.13 Four Elements of Workforce Participation 49
Table 2.14   Workplace Reform and Workforce Participation  50

Chapter Three

Table 3.1   Domestic Sales of new PMVs 1985-1991   60
Table 3.2   Market Share - Vehicles by Size 1985-1991   60
Table 3.3   Annual Price Increases
Locally Produced and Imported Cars
Consumer Price Index & Average Weekly Earnings
1985-1991   61
Table 3.4   New PMV Sales by Type of Purchaser 1985-1991 $A   62
Table 3.5   Australian Automotive Exports 1985-1991   63
Table 3.6   Production of Locally Produced PMVs   65
Table 3.7   Working Days Lost per Thousand Employees:
Automotive Industry and Total Manufacturing 1987-1991   70
Table 3.8   Australian Automotive Industry
Mass Production Work Organisation   71
Table 3.9   Profit Performance of PMV
Manufacturing Operations ($M) 1985-1991   72
Table 3.10  Employment in the Australian Automotive Industry
1985-1993   72
Table 3.11  Ford Q101 Systems Evidence Requirements, 1988   75
Table 3.12  Automotive firms in the ABPDP
Changes Introduced   78
Table 3.13  Automotive firms involved in the ABPDP
Workforce Participation   79
Table 3.14  Australian Automotive Industry
Production, Exports and Employment
1992-1996   81
Chapter Four

Table 4.1  Auto Electrical
Key Performance Data 1988-1993

Table 4.2  Auto Electrical
Work Organisation - Mass Production Model

Chapter Five

Table 5.1  Auto Electrical
Workplace Reform

Table 5.2  Auto Electrical

Table 5.3  Auto Electrical
Workforce Participation and Quality Management Reform

Table 5.4  Auto Electrical
Institutional Workplace Reform, 1987-1992

Table 5.5  Auto Electrical
Workforce Participation and Institutional Workplace Reform

Table 5.6  Auto Electrical
Workforce Participation and Best Practice Reform

Table 5.7  Auto Electrical
Direct Workforce Participation

Table 5.8  Auto Electrical
Structure for Representative Participation

Table 5.9  Auto Electrical
Central Consultative Committee 1989
Management Presentations

Table 5.10  Auto Electrical
Central Consultative Committee 1989
Sub-Committees

Table 5.11  Auto Electrical
Central Consultative Committee (A) 1992
Issues Presented by Management
Table 5.12  Auto Electrical
Consultative Committee Sub-Committee Recommendations

Table 5.13  Auto Electrical
Central Consultative Committee 1993
Issues Discussed

Table 5.14  Auto Electrical
Representative Workforce Participation 1987-1993

Table 5.15  Auto Electrical
Workplace Reform and Workforce Participation

Chapter Six

Table 6.1  Auto Mechanical
Key Performance Data 1988-1993

Table 6.2  Auto Mechanical
Work Organisation - Mass Production Model

Chapter Seven

Table 7.1  Auto Mechanical - Workplace Reform

Table 7.2  Auto Mechanical

Table 7.3  Auto Mechanical
Quality Operating System Strategy

Table 7.4  Auto Mechanical
Quality Improvement Schedule

Table 7.5  Auto Mechanical
Workforce Participation and Quality Management Reform

Table 7.6  Auto Mechanical
Institutional Workplace Reform 1987-1993

Table 7.7  Auto Mechanical
Employee Productivity Improvement

Table 7.8  Auto Mechanical
Workforce Participation and Institutional Workplace Reform

xvii
<table>
<thead>
<tr>
<th>Table 7.9</th>
<th>Auto Mechanical</th>
<th>B est Practice Reform</th>
<th>193</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 7.10.</td>
<td>Auto Mechanical</td>
<td>Australian Best Practice Demonstration Program Project Proposal</td>
<td>194</td>
</tr>
<tr>
<td>Table 7.11</td>
<td>Auto Mechanical</td>
<td>Policies 1992</td>
<td>195</td>
</tr>
<tr>
<td>Table 7.12</td>
<td>Auto Mechanical</td>
<td>Key Performance Indicators 1993</td>
<td>196</td>
</tr>
<tr>
<td>Table 7.13</td>
<td>Auto Mechanical</td>
<td>Workforce Participation and Best Practice Reform</td>
<td>197</td>
</tr>
<tr>
<td>Table 7.14</td>
<td>Auto Mechanical</td>
<td>Direct Workforce Participation</td>
<td>200</td>
</tr>
<tr>
<td>Table 7.15</td>
<td>Auto Mechanical</td>
<td>Structure for Representative Participation</td>
<td>203</td>
</tr>
<tr>
<td>Table 7.16</td>
<td>Auto Mechanical</td>
<td>Consultative Committee 1989 Issues Discussed</td>
<td>206</td>
</tr>
<tr>
<td>Table 7.17</td>
<td>Auto Mechanical</td>
<td>Consultative Committee 1990-91 Issues Discussed</td>
<td>206</td>
</tr>
<tr>
<td>Table 7.18</td>
<td>Auto Mechanical</td>
<td>Consultative Committee 1992 Issues Discussed</td>
<td>209</td>
</tr>
<tr>
<td>Table 7.19</td>
<td>Auto Mechanical</td>
<td>Consultative Committee 1993 Issues Discussed</td>
<td>212</td>
</tr>
<tr>
<td>Table 7.20</td>
<td>Auto Mechanical</td>
<td>Representative Workforce Participation and Workplace Reform</td>
<td>213</td>
</tr>
<tr>
<td>Table 7.21</td>
<td>Auto Mechanical</td>
<td>Workplace Reform and Workforce Participation</td>
<td>214</td>
</tr>
</tbody>
</table>
Chapter Eight

Table 8.1  Auto Air
Safety Record 1986-1991  233

Table 8.2  Auto Air
Key Performance Data 1988-1993  235

Table 8.3  Auto Air
Work Organisation Mass Production Model  238

Chapter Nine

Table 9.1  Auto Air Workplace Reform  241

Table 9.2  Auto Air

Table 9.3  Auto Air
Workforce Participation and Quality Management Reform  247

Table 9.4  Auto Air
Institutional Workplace Reform 1987-1993  248

Table 9.5  Auto Air
Workforce Participation and Institutional Workplace Reform  252

Table 9.6  Auto Air
Best Practice Reform  253

Table 9.7  Auto Air
Work Organisation – Pre and Post 1992  264

Table 9.8  Auto Air
Performance Targets Status-September 1993  265

Table 9.9  Auto Air
Workforce Participation and Best Practice Reform  266

Table 9.10  Auto Air
Process Improvement Group Projects 1990-1991  269

Table 9.11  Auto Air
Workforce Participation and Best Practice Reform  270

Table 9.12  Auto Air
Direct Workforce Participation  271

xix
| Table 9.13 | Auto Air                      | EPG 1988-1992 | Issues   | 275 |
| Table 9.14 | Auto Air Group               | Award Restructuring Steering Committee | Issues Discussed | 276 |
| Table 9.15 | Auto Air                     | Award Restructuring Working Party Committee | 1990-1991 | Restructuring Timetable | 279 |
| Table 9.16 | Auto Air                     | Award Restructuring Working Party Committee | 1990-1991 - | Issues Discussed | 280 |
| Table 9.17 | Auto Air                     | Extent of Representative Workforce Participation | 1987-1993 | 282 |
| Table 9.18 | Auto Air                     | Workplace Reform and Workforce Participation | 283 |

**Chapter Ten**

| Table 10.1  | Cross Company Comparisons - Characteristics | 288 |
| Table 10.2  | Cross Company Comparisons - Internal Structures | 289 |
| Table 10.3  | Cross Company Comparisons | Production Processes and Workplace Culture | 290 |
| Table 10.4  | Cross Company Comparisons | Integrating Workplace Reform | 293 |
| Table 10.5  | Cross Company Comparisons | Quality Reform Process | 294 |
| Table 10.6  | Cross Company Comparisons | Quality Reform Outcomes | 295 |
| Table 10.7  | Cross Company Comparisons | Institutional Workplace Reform Process | 296 |
LIST OF ABBREVIATIONS

8D    Eight Discipline
AAG   Auto Air Group
AA    Auto Air
ABPDP Australian Best Practice Demonstration Program
ABS   Australian Bureau of Statistics
ABS   Automotive Body System
ACAC  Australian Conciliation and Arbitration Commission
ACAS  Advisory Conciliation and Arbitration Service
ACM   Australian Chamber of Manufacturers
ACTU  Australian Council of Trade Unions
ADSTE Association of Draughting, Supervisory and Technical Employees
AIA   Automotive Industry Authority
AIC   Automotive Industry Council
AIRC  Australian Industrial Relations Commission
ALP   Australian Labor Party
AM    after-market
AMC   Australian Manufacturing Council
AMWU  Amalgamated Metal Workers Union
ARSC  Award Restructuring Steering Committee
ARWPC Award Restructuring Working Party Committee
ASE   Australian Society of Engineers
AWE   Average Weekly Earnings
AWIRS90 Australian Workforce Industrial Relations Survey 1990
AWIRS95 Australian Workforce Industrial Relations Survey 1995
AWU   Australian Workers Union
BCS   Body Chassis System
BMC   British Motor Company
BP    Best Practice
CAD   Computer Aided Drafting
CAI   Confederation of Australian Industry
CAM   Computer Aided Manufacture
CAR   Corrective Action Request
CBU   Completely-Built-Up
CC    Consultative Committee
CCC1989 Central Consultative Committee 1989
CCC1993 Central Consultative Committee 1993
CCCA1992 Central Consultative Committee A 1992
CCCB1992 Central Consultative Committee B 1992
CKU   Completely-Knocked-Down
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cl.</td>
<td>Clause</td>
</tr>
<tr>
<td>CNC</td>
<td>Computer Numerical Control</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
</tr>
<tr>
<td>Cpk</td>
<td>Controlled Process Capacity</td>
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<td>CQI</td>
<td>Continuous Quality Improvement</td>
</tr>
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<td>CSD</td>
<td>Corporate Services Department</td>
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<td>DIR</td>
<td>Department of Industrial Relations</td>
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<td>EB</td>
<td>Enterprise Bargaining</td>
</tr>
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<td>EBA</td>
<td>Enterprise Bargaining Agreement</td>
</tr>
<tr>
<td>EDI</td>
<td>Electronic Data Information</td>
</tr>
<tr>
<td>EEO</td>
<td>Equal Employment Opportunity</td>
</tr>
<tr>
<td>EFT</td>
<td>Electronic Funds Transfer</td>
</tr>
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<td>EI</td>
<td>Employee Involvement</td>
</tr>
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<td>EPAC</td>
<td>Economic Planning Advisory Committee</td>
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<td>EPC</td>
<td>Engineering Production Certificate</td>
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<tr>
<td>ER&amp;D</td>
<td>Engineering Research and Development</td>
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<tr>
<td>FAPM</td>
<td>Federation of Automotive Products Manufacturers</td>
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<td>FCAI</td>
<td>Federated Chamber of Automotive Industries</td>
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<tr>
<td>FCMU</td>
<td>Federated Clerks Union</td>
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<td>FIMEE</td>
<td>Federation of Industrial Manufacturing and Engineering Employees</td>
</tr>
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<td>FMEA</td>
<td>Failure Mode and Effect Analysis</td>
</tr>
<tr>
<td>FMWU</td>
<td>Federated Miscellaneous Workers Union</td>
</tr>
<tr>
<td>FORD Q1</td>
<td>Ford Motor Company Quality Supplier Assessment</td>
</tr>
<tr>
<td>FORD Q101</td>
<td>Ford Motor Company Quality Supplier Assessment</td>
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<tr>
<td>FVIU</td>
<td>Federated Vehicle Industry Union</td>
</tr>
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<td>GM</td>
<td>General Motors</td>
</tr>
<tr>
<td>GMH</td>
<td>General Motors Holden</td>
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<td>GMH QSA</td>
<td>General Motors Holden Quality Supplier Assessment</td>
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<td>HR</td>
<td>Human Resources</td>
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<td>HRM</td>
<td>Human Resource Management</td>
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<td>IC</td>
<td>Industry Commission</td>
</tr>
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<td>IMVP</td>
<td>International Motor Vehicle Project</td>
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<tr>
<td>IR</td>
<td>Industrial Relations</td>
</tr>
<tr>
<td>IRC</td>
<td>Industrial Relations Commission</td>
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<tr>
<td>JCC</td>
<td>Joint Consultative Committee</td>
</tr>
<tr>
<td>JIT</td>
<td>Just In Time</td>
</tr>
<tr>
<td>JUSE</td>
<td>Japanese Union of Scientific Engineers</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicators</td>
</tr>
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<td>MIS</td>
<td>Management Information System</td>
</tr>
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<td>MIT</td>
<td>Massachusetts Institute of Technology</td>
</tr>
<tr>
<td>MPS</td>
<td>Materials Purchasing and Supply</td>
</tr>
<tr>
<td>MRPII</td>
<td>Materials Research Planning II</td>
</tr>
<tr>
<td>MTFU</td>
<td>Metal Trade Federation of Unions</td>
</tr>
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<td>MTIA</td>
<td>Metal Trades Industry Association</td>
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<td>NATA</td>
<td>National Association of Testing Authority</td>
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<td>NC</td>
<td>Numerical Control</td>
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<tr>
<td>NKCCI</td>
<td>National Key Centre for Industrial Relations</td>
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<td>NUW</td>
<td>National Union of Workers</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<td>OECD</td>
<td>Organisation for Economic Development</td>
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CHAPTER ONE

INTRODUCTION

Introduction

This thesis seeks to advance understanding of the politics of workplace reform. Specifically, what are the tasks of management, what is the role of workers, and how do they relate?

Workplace reform is a common term in Australia but it relates to a set of poorly understood and perhaps contradictory activities found in workplaces that are seeking to induce productivity growth. It is commonplace for workplace reform to be predicated on greater workforce participation. However the nature of this relationship is complex. Workforce participation is also open to many interpretations, although its meaning has been explored more rigorously in the research literature. The question of interest is – does workplace reform require a power shift to enable workers to remedy mismanagement, or does it require limited suggestions and consent manufactured within the political status quo? Accordingly the question posed for this thesis is – what is the nature of the relationship between workplace reform and workforce participation?

Let us begin, then, by establishing the purpose of the thesis through a brief discussion of the question set out above linked to a preliminary attempt to clarify the key concepts of workplace reform and workforce participation. Having thus set the objectives of the thesis, the remainder of this chapter will go on to describe research methods, and to outline the issues dealt with in each chapter of the thesis.
Workplace reform – as it is understood now – has its origin in the efforts of business organisations to become more competitive and productive in a climate of intense product market competition. Since the mid 1980s much has been said in Australia and in other developed countries about the need for industry to reform in order to remain competitive in international markets and to improve living standards. “To live well, a nation must produce well”, claimed one influential North American study (Dertouzos, Lester & Solow 1989:1). Australian policy makers and producers have heeded this message.

The reform of production is a complex phenomena and may be made up of many ingredients. Central to most analyses of workplace reform is the notion of more exacting customer demands – a consequence of product market saturation and relaxed market controls that cause intensified competition. The challenge this creates for producers is a formidable one. Producers in competitive markets must provide more exacting quality at lower prices at the very time that costs of materials, energy, and labour are increasing sharply (Imai 1986). This in turn forces a re-appraisal of traditional methods of work organisation. Work processes that emphasise quantity rather than quality, mechanisation rather than humanisation, and managerial control rather than employee commitment, have been indicted as unsustainable in a competitive market (Wilkinson et al. 1993). Such traditional work processes are said to be associated with inferior products and inefficient factories – a poor basis for long-term commercial survival (Dertouzos Lester & Solow 1989:1).

Such discussions of productivity improvement inevitably lead to a reconsideration of the human factor in work processes. It has been said “the people element is the final piece of the (productivity) jigsaw” (Wilkinson et al. 1993:22). How business uses human resources is often analysed critically. Thus one influential Australian government report condemned the past practice of Australian manufacturers by arguing that production can no longer depend on an indifferent and ill-trained workforce who retaliates with high labour turnover and absenteeism (Australian Manufacturing Council [AMC] 1990). More generally, the correct use of labour is deemed essential to competitiveness; it is “more than merely a variable factor of production” (Peters & Waterman 1982; Kanter 1984; Turnbull 1988a; Drucker 1989;
Peters 1987, 1992). Indeed it is sometimes argued that the key strategic resource in
economic activity has changed from capital to human capital as new technology
moves economic activity from an industrial era to an information era (Naisbitt &
Aburdene 1986). However a more balanced view is likely to depict human resource
change as just one of a set of equally necessary changes to establish competitive
production systems. Thus some writers project future methods of work organisation
will comprise:

new ways of thinking about human resources, new ways of organising their systems of
production, and new approaches to the management of technology (Dertouzos, Lester & Solow

Real productivity improvement, it is claimed, depends upon simultaneous and
integrated improvement in all aspects of an organisation’s operations – strategy,
technology, marketing, operations, information systems, and organisational structure,
as well as human resources.

In Australia such integrated reform of business and production systems is commonly
referred to as ‘workplace reform’. Chapter Two will explore what this means at
greater length. For the moment it is sufficient to note three points. First, the term is
imprecise because it is used to capture several processes or activities that are
themselves complex, ill defined, and perhaps contradictory. Second, these processes
or activities have been alluded to by a number of subsidiary labels or terms including
‘new production practices’, ‘teamwork’, ‘semi-autonomous work-groups’, ‘total
‘best practice’, ‘award restructuring’, ‘enterprise bargaining’, and many others. Some
of these terms refer only to a part (perhaps a small part) of what is meant by the larger
term ‘workplace reform’. Third, for the purposes of this thesis the focus will be upon
three such processes - quality management, institutional workplace reform, and best
practice. Quality management is defined as the development of a new quality
consciousness focussed on continuous quality improvement. Institutional workplace
reform is defined as collective bargaining with unions for productivity improvements
in exchange for wage gains. Best practice (a common abbreviation of ‘International
Best Practice’ or ‘World’s Best Practice’) is defined as a “comprehensive and
integrated approach to continuous improvement in all facets of an organisation’s operations” (AMC 1994:iv).

Why select and focus on these three approaches to workplace reform? The answer to this question lies largely in the observation that they appear most relevant to the Australian automotive industry in the early 1990s when research fieldwork for this thesis was undertaken. The automotive industry – in Australia as elsewhere in the world – has appeared to be the pacesetter and archetypal case of a transformation of production systems from a ‘Fordist’ to a ‘Post-Fordist’ approach. The empirical studies that inform this thesis report workplace reform in three Australian automotive parts manufacturers. In all three cases, the substance of workplace reform corresponded to the three types of reform selected here for particular attention. More generally, from the mid 1980s to the mid 1990s, Australian manufacturing workplaces as a whole have sought to apply these three approaches to workplace reform. This thesis contends that the specific practices and terminology used in Australian workplaces at this time related mainly to quality management, award restructuring and enterprise bargaining (which have been consolidated as institutional workplace reform), and best practice.

There is a further reason to focus on these three types of workplace reform in that they appear to exhibit significant differences. These differences will be discussed in Chapter Two. They relate to the substantive agendas (what is to be reformed) and to the ownership or control of the process (by whom will reform be driven). Such differences in the substance and process of workplace reform are likely to have important implications for the research question posed by this thesis. Thus it can be suggested that the form of workforce participation necessary for workplace reform may depend upon the type of workplace reform – quality management, institutional workplace reform, or best practice.

The objective of workplace reform is to improve productivity performance. There exists a body of research literature which shows that performance by firms is affected by a set (or bundle) of human resource variables (Cooke 1989; Arthur 1994; Huselid 1995; McDuffie 1995; Becker & Gerhart 1996). These include the intensity of
collaboration – the co-operative or adversarial nature of labour-management relations. For the purpose of this thesis the term workforce participation shall be used to refer to this variable of the intensity of collaboration – the many ways in which employees may assist production. This leads to the second key concept of the thesis – workforce participation.

Much of the literature on workplace reform recommends increased employee (workforce) participation. It has been claimed that “without the participation of both parties to the employment relationship, the firm will not be a viable concern and neither profit nor wages will be earned” (Kaufman 1992:37). Researchers on best practice in the USA found that successful companies were characterised by a significant level of participation by the workforce on a wide range of matters (Dertouzos, Lester & Solow 1989:99). In the UK one recent government report concluded “effective employee involvement is not just a matter of good employer practice...it is, above all, a prerequisite for business growth in a modern economy” (Employment Department, Research Report 1994, cited in Fernie & Metcalf 1995:379). Likewise in Australia a major report into the future of Australian manufacturing concluded that there was need for:

   a comprehensive and integrated approach to organisational change and the pursuit of continuous improvement in the performance of an enterprise [and] a fundamental change in corporate culture and the way management and employees work....a key element of which was the increase in employee involvement in decision making (AMC 1990:71).

Consistent with these general claims, the three different approaches to workplace reform distinguished above (quality management, institutional workplace reform, and best practice) each incorporate increased workforce participation as a key part of the reform of the management-employee relationship. However there is no agreement as to the form that it should take. This ambiguity or lack of clarity is characteristic of the literature on workforce participation. It has been stated that “participation is not a single coherent entity....rather it is a vague and shifting terminology covering a complex range of techniques and contexts” (Ackers et al. 1992:281). Similarly it has been noted “industrial democracy means different things to different people” (Davis & Lansbury [ed] 1986:1). This looseness in terminology is further shown in the workplace reform literature by the undiscriminating use of terms as varied as
industrial democracy, workforce participation, empowerment, and employee involvement. Despite their interchangeable use in the workplace reform literature, these terms may actually relate to rather different practices and policies. The key dimensions of difference are explored below.

Categorisations of different types of workforce participation may be based upon many criteria. They may relate, for example, to the:

- level at which participation occurs (from board level to production line)
- subject matter of participation (which may be unlimited or restricted to a specific issue)
- authority of the participative machinery (executive or advisory)
- participation of the wider labour movement (which may be excluded or involved), or to the model of democracy (representative/pluralist or direct).

This thesis is concerned with the politics of workplace reform. Thus the particular interest in workforce participation relates primarily to the types of political mechanisms in workplaces which may mediate conflicting interests in decision-making. A useful starting point in categorising different types of workforce participation is to distinguish between representative/pluralist forms (in which independent and legitimate power blocs mediate conflicting views upon management decision making), from direct forms (in which management devolves responsibility for production to accountable individuals or teams).

The representative/pluralist type arises because there are claimed to be differences of interest underpinned by the unequal distribution of power between employers and employees (Fox 1967, 1974, 1975). It has been argued that, from an employee’s view, workforce participation serves to reduce the contested terrain between management and labour caused by the unequal distribution of power and control. Increasingly equality of influence through participation is required before more collaborative industrial relations can be assured (Edwards 1979; Kochan, Katz & McKersie 1986). Thus Poole argued that “workers’ participation is…..the principal means of obtaining greater control by workers over several aspects of their working lives and in so doing augmenting their power vis a vis that of management”(Poole 1975:24). This motive
for workforce participation leads towards specific institutional forms by which employee power can be mobilised – usually forms that involve employee representation by independent trade unions or by elected representatives with ‘shop floor’ electorate support. These institutional forms may be referred to as industrial democracy or workforce participation but not as empowerment or employee involvement. They entail:

greater economic and political pluralism,...an equality of bargaining power between labor and management, industrial democracy, through the independent representation of the workers by trade unions and a moderation of the adversarial relationship between managers and workers through institutionalized methods of conflict resolution (Kaufman 1992:189).

Conversely, the direct/unitarist approach sometimes described as empowerment or employee involvement is often founded in a rather different view of optimal power relations. This is a form of participation employers may favour to enhance workforce collaboration with managerial decision-making as it is not premised on the mediation of conflicting interests. Rather, there is an assumption of shared or common interest, usually in collective economic welfare. The institutional forms of empowerment or employee involvement will favour individual or work group employee involvement rather than collective representation. Paradoxically, perhaps, this participative model will also introduce direct decision-making about customer satisfaction or production issues rather than influence upon managerial decision-making. Implicit in this, of course, is a rather different approach to organisational structure than that found in a ‘Fordist’ organisation – a flatter, less hierarchical structure with decision-making authority devolved to work teams (Rimmer et al. 1996).

There is considerable room for debate about the relation between the two forms of workforce participation suggested above. For example, one view advanced by Keller is a developmental position that sees the second form of participation supplanting or supplementing the first. He argues:

old forms of employee representation were and are indirect representative, collective, and institutionalized; new models of participation tend to be more direct, individual, and more or less informal (Keller 1995:323).

On the other hand Kelly and Kelly argue that “although workers often welcome these new industrial relations techniques, there is little evidence of any impact on ‘them and us’ attitudes” (Kelly & Kelly 1991:25).
The differences between these approaches to workforce participation will be expanded upon in Chapter Two. It is sufficient here to note that the literature on workplace reform and workforce participation is problematic in terms of linking concrete forms of workforce participation to specific types of workplace reform.

From the studies cited above, there seems to be a widespread claim that workplace reform requires workforce participation of some kind. What is problematic is the nature of the relationship between the two. This thesis first asks whether particular types of workplace reform are associated with particular forms of workforce participation. Two preliminary definitional questions need to be answered before this question can be handled.

- First, what is meant by workplace reform? Three approaches to workplace reform, quality management, institutional workplace reform, and best practice, will be further explored in Chapter Two.
- Second, what is meant by workforce participation? Two forms of workforce participation, direct and representative, will be distinguished and discussed in Chapter Two.

The thesis then goes on to explore whether the hypothesised relationships between workplace reform and workforce participation are supported by empirical data devised from detailed case studies.

**Research Design**

Analysis of the relation between workplace reform and workforce participation in this thesis is supported by empirical research drawn from three workplace case studies. Case study research was considered appropriate for a number of reasons. First, it is appropriate to the complexity of the research subject. Marchington et al. claim that a case study approach to workplaces is useful when studying the “often intricate and subtle nature of the questions….why different forms of…Employee Involvement…were introduced, how they impacted upon the organisation concerned, and how they varied
between different case study sites” (Marchington et al. 1992:3). This view is echoed by Lansbury and Macdonald who claim that case studies provide “the opportunity to gain an in-depth knowledge of the dynamics and texture of workplace industrial relations” (Lansbury & Macdonald 1992:20). Both workplace reform and workforce participation are complex phenomena, well suited to study through case studies which can open up complex patterns of social meaning, power relations and causality. Second, the relation between workplace reform and workforce participation is a dynamic one, involving changes over time. These changes are best captured by case study research which lends itself to recording and analysing chronological events over a lengthy period of time (Lansbury & Macdonald 1992). While recognising that caution needs to be taken with any findings based on a small number of case studies it is believed the findings will make a valuable contribution, “throwing light on complex and dynamic phenomena” (Kaufman 1992:180).

The case studies describe firms in the Australian automotive industry. This industry was chosen because it has experienced extensive experimentation in workplace reform. Underpinning this reform during the 1980s and 1990s was severe economic pressure that forced automotive companies throughout the world into more competitive changes such as frequent model renewals. Recognition of environmental hazards and concerns regarding scarcity of fuel contributed. More generally there was a climate of greater consumer demand for price reductions and quality improvements (Turnbull 1991; Volpato 1992). These pressures coincided with product market saturation and more intense global competition between producers. By the late 1980s such competitive pressures in Australia forced domestic producers to seek improved labour productivity through workplace reform. This was associated in 1990 with a major research report into the future of manufacturing industry. This report claimed the car industry and its associated suppliers represented one of the most important industries to the country (AMC 1990). However, between 1987 and 1993 it became an industry under threat as sales of imported vehicle increased from around 15% of the market to almost 40% (Automotive Industry Authority [AIA] 1988, 1991, 1993). In response to these market problems the government encouraged automotive companies to undertake workplace reform.
It will be shown that successive experimentation in workplace reform placed emphasis upon quality improvement, institutional reform of the management-workforce relationship, and integrated ‘best practice’ processes. Thus the automotive industry, both assemblers and component manufacturers, came to exemplify the types of workplace reform of interest in this thesis. Much has been written on reform in the automotive assembly section of the industry (Krafcik & McDonald 1989; Lever-Tracy 1990; Lansbury & Davis [ed] 1991; Mathews 1991; Lansbury & Mcdonald 1992; Levine, McLennan & Reece 1993; Menere 1993; Lansbury 1994; Shadur et al. 1994; Simmons 1994; Lansbury & Bamber 1995; Davis & Lansbury 1996; Simmons & Lansbury 1996; Bamber & Lansbury 1997; Greenwood & Langfield-Smith 1997). Accordingly, the less familiar components sector was chosen as a focus for this thesis to complement this existing research.

The three case study companies were chosen for several reasons. First all three companies shared a common set of characteristics. These were;

- All are defined as significant within the Specialist Component Producers (SCPs) sector of the automotive industry
- All are directly linked through the sale of components and the provision of tooling to their automotive assembly customers
- Each suffered from economic downturn in the 1980s and early 1990s
- All were affected by the reform process introduced by the Australian Federal Government in 1984 (Button 1984)
- Employees in each company are highly unionised, belonging to active and powerful unions

Second, all three met a necessary test for inclusion in this thesis. Each had attempted to implement an extensive workplace reform agenda that included some or all of the three types of workplace reform under consideration in this thesis. Similarly these experiments in workplace reform were accompanied by workforce participation initiatives. The three companies are therefore appropriate research sites to explore the question posed in this thesis.
Data collected for the thesis included both primary data sourced from company records, focus groups, interviews and surveys, secondary data sourced from published case study research, government reports, and a survey of other relevant literature. Four principal data collection methods were employed in the case study research:

- Semi-structured interviews (interview questions are given in Appendix 1).
- Focus Groups (schedules and questions for each case study are provided in Appendix 2).
- Research into company records. (This included questions from a ‘Climate Survey’ carried out in Auto Mechanical provided in Appendix 3, and questions for a ‘Forepersons Survey’ carried out in Auto Air provided in Appendix 4).
- Personal observation.

The data collected was principally qualitative, although quantitative data was gathered where possible. Data collection through observation was made possible by agreement with management, unions, and employees in the three workplaces. This made it possible to undertake observation as a non-participant. Over time this allowed observation of both formal and informal consultative activities. Some observation visits were brief, simply for the collection of specific information; others were longer, involving small group discussions and attendance at formal meetings. Included amongst the latter were meetings of consultative committees. Trust was built up with managers, the workforce, and the unions representing the workforce, which accounts for their willingness to allow viewing of company documents and other information without restriction and to use any information collected during these visits as part of the empirical data for this thesis. It also allowed access to the case study sites over an extended period from 1989 to 1993 to gain understanding of the dynamics of workplace change. It was a condition of research that anonymity be preserved for all three workplaces.

Focus Groups were used as a data source in all three case studies. In all companies Focus Groups were conducted with both management and workforce representatives present. In some cases additional Focus Groups were held consisting solely of managers or employees and their representatives. The questions posed for the Focus
Groups differed to a small degree as shown in the Appendices. These differences were intended to minimise confusion. They did not noticeably affect results from the Focus Groups. Focus Groups were conducted early in the research in order to enable the researcher to stimulate discussion of opinions, reactions, and feelings about workplace reform. Each Focus Group received a written copy of the recorded outcomes for validation. From the information collected the researcher was able to develop questions then used in interviews with managers and union officials.

**Summary and Thesis Plan**

This Chapter has introduced some issues about the tasks and roles of management and workers under workplace reform. Specifically it has explored the question of the nature of the relationship between workplace reform and workforce participation. The issues discussed may be summarised as follows. Workplace reform is a complex concept encompassing a range of more specific activities intended to make workplaces more productive. These include, but are not limited to, quality management, institutional workplace reform, and best practice. Under economic pressure since the early 1980s, Australian automotive assemblers and parts manufacturers have spearheaded reform initiatives under these three headings. It is usually accepted that workforce participation is an integral ingredient in such reform. Workforce participation too is a complex concept capable of application to a range of diverse practices. For the purpose of this thesis two main approaches to workforce participation were distinguished – representative and direct. The relationship between workforce participation and workplace reform is unclear, deserves attention, and may vary depending on the specific approach taken to reform.

Ultimately this thesis is concerned with the politics of workplace reform – what kind of participation underpins what kind of reform? The research setting chosen to explore this question is the Australian automotive industry. Case studies were undertaken upon three specialist component producers selected primarily because they exemplified the range of workplace reforms distinguished above (quality management, institutional workplace reform, and best practice), whilst also attempting to establish workforce participation.
The remainder of this thesis falls into four parts. First, Chapter Two explores in greater depth the key concepts introduced above. Workplace reform and workforce participation are discussed through an extended review of the relevant literature. Second, Chapter Three describes economic, corporate, and policy developments in the Australian automotive industry with a special focus on the late 1980s and early 1990s. This account provides a necessary backdrop to the case studies that follow of the three automotive parts manufacturers. The third part of the thesis comprises six chapters containing the case studies themselves. The account of each firm is broken into two chapters: the first describes economic, corporate, technological and other changes, whilst the second recounts specific developments in workplace reform and workforce participation. Finally, the tenth and concluding chapter compares similarities and differences observed in the three case study firms and draws out lessons about the relationship between workplace reform and workforce participation.
CHAPTER TWO

WORKPLACE REFORM AND WORKFORCE PARTICIPATION
Theory and Practice

Introduction

In the preceding chapter the question was asked - what is the relationship between workplace reform and workforce participation? An initial distinction was drawn between three types of workplace reform (quality management, institutional workplace reform, and best practice) and between two types of participation (representative and direct). The principal objective of this chapter is to review the literature on workplace reform and workforce participation to clarify the principal types distinguished above.

Workplace Reform

Mathews describes workplace reform as the “watchword of change in Australia” (Mathews 1994:19). He may be correct in suggesting that the expression workplace reform is employed extensively in Australia, but what does the expression mean?

In general, workplace reform can be said to possess three defining characteristics. First, is a common purpose - to improve competitiveness or productivity. Workplace reform may have other objectives such as improving job security, workforce equity, or environmental standards. But this thesis will treat these as contingent objectives whereas improved competitiveness or productivity is a necessary goal. Second, is a common locale or point of action - the workplace. Workplace reform may depend upon support from sources outside the workplace - corporate head offices,
governments, trade unions, and so on. However, the activities and productivity gains to which those supports are directed occur essentially within workplaces. Third, is a common ingredient - varying the human input into production. Workplace reform may well entail other aspects of business activity – strategy, new technology, marketing, and the like. However, by themselves changes to such business activities do not constitute workplace reform as this term will be used here. Rather it is necessary that workplace reform requires human resource change, albeit frequently under the influence of changes in other business functions or activities.

In Chapter One it was noted that workplace reform denotes several distinct and sometimes conflicting phenomena. Three particular approaches were distinguished for further analysis in this thesis – quality management, institutional workplace reform, and best practice. These were selected as the approaches most relevant to the Australian automotive industry in the period under research – the late 1980s and early 1990s. It will be shown that these three are also different in important ways. It will also be claimed that this typology, whilst not exhaustive (encompassing all significant approaches to workplace reform), does cover other significant claimants for attention such as lean production (which can be treated as a variant of best practice). Many phenomena given different titles in management writing overlap significantly in substance. It is not possible to show here what all the titles for workplace reform are; indeed this would be superfluous as many relate to practices adequately described by other titles. This thesis is founded on the claim that the three variants selected adequately cover the field – at least for the automotive industry at the time of the study.

The order in which Australian managers, especially those in the automotive industry, came to experiment with these three forms of workplace reform is roughly as follows. Quality management was the first to come in vogue. Quality circles became popular in the early 1980s, followed by ‘just-in-time’ (JIT) systems and strict quality accreditation in the late 1980s. Institutional workplace reform was next to follow beginning with the ‘two tier’ wage system of March 1987 and continuing through award restructuring (1988-90) and enterprise bargaining (1991 onwards). The theory and application of best practice coincides initially with the operation of the Australian
The sequence for discussion of these three types of workplace reform will follow the rough chronological order of their application in Australian industry. The thesis will now examine in detail each of these three types of workplace reform.

### Quality Management

The first type of workplace reform is quality management. It was defined briefly in Chapter One as the development of a new quality consciousness focussed on continuous quality improvement. It has been a popular approach to workplace reform in Western societies, including Australia, since the early 1980s. As discussed by many writers, amongst others Dore (1973), Harber and Samson (1987), and Schonberger (1992), quality management is based on Japanese experience in the post war period. However the principal theorists are American. The next section explores what these writers mean by quality management and how their ideas were applied in Australia.

Taking the definitional question first, quality has been defined simply as “fitness for use” (Juran 1989:15) or “conformance to requirements” (Crosby 1979:9). Despite the simplicity of these definitions there has been considerable debate upon how companies can achieve quality, and in particular the degree of emphasis to be placed on technical as compared to people-oriented quality improvements. The advocates of technical quality improvement have generally been associated with Statistical Process Control (SPC) and Total Quality Control (TQC), (Shewhart 1931; Page 1954, 1964; Montgomery 1980; Sprouster 1984). Advocates of people-oriented quality, on the other hand, have been associated with Total Quality Management (TQM), (Crosby 1979, 1984; Deming 1982, 1986; Juran 1989). This debate between technical and people centred approaches continues. However it is not the purpose of this thesis to enter into the debate since this has been done in other studies (Schonberger 1982; Feigenbaum 1983, 1986; Imai 1986). In any event, modern thinking leans towards defining quality management as a synthesis of its technical and people oriented aspects. For example Dawson and Palmer define quality management as:
computerised data collection and statistical experimentation with a focus on teamwork, group participation and a culture of continuous improvement in operating systems (Dawson & Palmer 1994:40).

This definition is consistent with the one employed for this thesis (see Chapter One).

Since the late 1970s many writers have sought to describe quality management. Four chosen for discussion in this thesis are Deming (1982, 1986), (considered by many to be the founder of the quality movement), Crosby (1979, 1984), Juran (1989), and Feigenbaum (1983, 1986). All have worked mainly in the USA, although their influence is much broader spreading to many countries, including Japan, which was the source for much of their inspiration.

Deming (1982) states that in order for quality to improve, companies have to broaden their focus from final product inspection to the production process itself. He maintains that 85% of product quality problems are caused by the system of production (common cause variations), with the much smaller 15% caused by employees (specific cause variations). Accordingly he suggests that what is needed is the adoption by companies of a zero defect target to be achieved through continuous quality improvement (CQI). This requires companies to make both internal and external change towards improved customer relations and to replace the just-in-case philosophy that had dominated production resulting in costly stockpiling, with a just-in-time delivery system such that inputs are delivered:

just in time to be sold,...just in time to be assembled to finished goods,...just in time to go on to sub-assemblies and, ...just in time to be transformed into fabricated parts (Schonberger 1982:16).

Deming’s first five Principles of Good Management are summarised as:

i) create constancy of purpose towards improvement of product and service.
ii) adopt a new philosophy based on zero defects.
iii) cease dependence on mass inspection.
iv) award business on quality, along with price.
v) seek constant improvement (Deming 1986).

He argues that such a CQI philosophy cannot simply be engineered in but rather requires a supportive enterprise culture. To this end he states that internal barriers within the company have to be reduced, managers have to become leaders rather than
controllers, and employees have to be encouraged to regain a pride in workmanship. This he summarises into a further four Principles of Good Management:

vi) institute leadership.

vii) drive out fear so that everyone may work effectively.

viii) break down barriers between departments.

ix) reintroduce pride of workmanship (Deming 1986).

Finally, to achieve employee commitment to CQI, Deming advocates a new management-employee relationship. First, management has to accept some responsibility for quality problems. He maintains that although this will be resisted by management because “it is a new and incomprehensible thought to a man in an executive position that management could be at fault in the production end” (Deming 1986:47), quality cannot be improved until systems designed by management are changed. Second, management has to reduce its reliance upon targets and quotas. This reliance, Deming claims, has resulted in an increase in the quantity of goods produced, but at the expense of quality. Instead managers have to develop long term policies aimed at genuine change rather than quick fix solutions. “People who expect quick results, are doomed to be disappointed”, he argues (Deming 1986:x). Hence two further Principles of Management are added:

x) eliminate slogans, exhortations and targets for the workforce.

xi) eliminate numerical work standards (quotas) (Deming 1986).

Third, the workforce needs to be trained in quality techniques. These problem-solving tools are used to collect and analyse accurate information on quality problems. Gabor quotes Deming as arguing that “decisions made by management or workers must be based on data and on the theoretical knowledge needed to know how to use it, not on instinct” (Gabor 1990:32). Employees also need to understand their role in the whole process. As Hall explains, Deming had the view that employees needed to “visualise the physical operations of the company from raw material to customer delivery” (Hall 1983:10-11). Finally, employees need to be encouraged to be innovative rather than being “handicapped by the system...that...belongs to management” (Deming 1982:68). Wright (1984) argues this requires employees to be recognised for their technical expertise rather than them being seen as simply extensions of technology. Deming gives examples from Japan in which employees regularly participate in operating decisions, are encouraged to make suggestions, and accept a high degree of
responsibility for overall performance. Thus Demings’ final three Principles of Good Management are:

\[\text{xii)} \ \text{institute training on the job.}\]
\[\text{xiii)} \ \text{institute a vigorous program of education and self improvement.}\]
\[\text{xiv)} \ \text{create a structure in top management that will push every day on the above 13 points (Deming 1986).}\]

His proposals for change focus on the way production occurs rather than the way decisions are made. He does not suggest any change in managerial decision making structures. Nor does he reject pluralist institutions such as trade unions, although ideally they are to be excluded from managerial prerogative. Rather he assumes that employees, led by unions, will adopt the interests of management since “it is clearly understood that the interests of the union are tied to the success of the company” (Deming 1986:47). Consequently, the quality model developed by Deming does not recognise an independent union view on quality issues.

Other important quality theorists reinforce this focus on the production process rather than on the decision-making process. First, Crosby states the importance of establishing quality measurements for each activity within production in order to calculate the cost of non-conformance. He defines quality management as:

\[\text{a sophisticated way of guaranteeing that organised activities happen the way they are planned.}\]
\[\text{It is a management discipline concerned with preventing problems from occurring by creating the attitudes and controls that prevent defects from happening in the company’s performance cycle (Crosby 1979:94).}\]

By this definition Crosby recognises the important responsibility of management in “establishing the purpose of an operation, determining measurable objectives, and taking the actions necessary to accomplish these objectives” (Crosby 1979:25). The role of the employee is to assist managers by advising them of suggestions for change.

Second, Juran states work organisation influenced by mass production techniques has restricted employees ability to improve product and hampers their efforts to “eliminate the causes of defective product” (Juran 1989:6). He argues that despite the need for increased workforce involvement in producing quality products, senior managers (the vital few) need to direct more closely lower levels of management and the workforce (the useful many). This is because:
the bulk of the workforce lacks, in varying degrees, the special skills that make possible a self
sufficiency in product design, process design, and quality control....This lack of special skills
imposes limits on the ability of managers to delegate responsibility to the workforce (Juran

This requires managers to retain control of projects to ensure priorities are effective
and to counter “the risk that the workforce will be deciding which projects the
managers should tackle” (Juran 1989:52).

Finally, Feigenbaum provides a more inclusive definition. He describes quality
management as:

an effective system for integrating the quality development, quality maintenance, and quality
improvement efforts of the various groups in an organisation so as to enable marketing,
engineering, production, and service to occur...at the most economical levels....which allows
for full customer satisfaction. It is much more than merely a grouping of technical projects and
motivational activities, without any clearly defined managerial focus. Quality is, in essence, a
way of managing the organisation (Feigenbaum 1983:xxi-xxii).

He states that total quality management is “the single most important force leading to
organisational success and company growth in national and international markets”
(Feigenbaum 1986:xxi). Once again management is seen as the principal decision
maker within a company, although he argues that management must learn to delegate
responsibility saying that “management must find the means of delegating
responsibility and authority for a management activity, while retaining the means of
assuring satisfactory results” (Feigenbaum 1983:xxi). For delegation to be successful,
he argues, communication must be improved to ensure that the workforce has “a good
understanding of what management is trying to do” (Feigenbaum 1983:208-9).

A common feature of all these theories is the need for employees to adopt a
philosophy of continuous quality improvement. Mathews describes this as dispensing
with the idea that “quality can be achieved through inspection”, and replacing it with
the idea that “quality can be achieved at source by entrusting workers with the goals
and performance measurement of their work system” (Mathews 1994:12). This is said
to require management adoption of a coaching leadership style to encourage
employees to commit themselves to performance goals set by management. Change
also needs to be made to the production process to discourage poor quality production.
Such changes include first, a new method of delivery such that parts, sub-components,
and finished product are delivered just-in-time. This removes the luxury of just-in-case delivery, which, it is claimed, encourages the production of sub-standard quality items (Wantuck 1982). Second, quality theorists advocate the establishment of groups of employees trained in the techniques of Statistical Process Control who meet regularly to discuss solutions to quality problems. Thus the quality management reformers advocate increased workforce involvement in quality improvement through a change in the way tasks are performed, the technical monitoring of processes and products, and employee involvement in temporary problem solving groups. Thus workforce participation is an essential element in the quality management process.

What then has been the Australian experience of quality management? First, there appears to have been a lengthy time lag between pioneering developments in Japan and the follow-on applications in Australia. Quality circles were claimed to originate as early as 1962 in Japan (Dore 1973; Union of Japanese Scientists and Engineers [JUSE] 1980; Schonberger 1982; Harber & Samson 1987). They only became widespread in Western countries in the 1970s and early 1980s, the first UK example being Rolls Royce in 1978 (Dale & Haywood 1984). In 1990 the British Workplace Industrial Relations Survey found that 28% of British businesses had quality circles (Milward et al 1992). In the USA, quality circles followed on from experiments in suggestion systems introduced by companies such as Honeywell in 1980 and Phillips Petroleum in 1981, (Appelbaum & Batt 1994:75). A 1982 survey of over 6000 firms with 100 or more employees found that 44% had quality circles (New York Stock Exchange Survey 1982, reprinted in Appelbaum & Batt 1994:173). A 1990 survey of Fortune 1000 firms found that 66% of firms had quality circles, an increase from 39% in 1987 (Appelbaum & Batt 1994:180).

Similarly in Australia the initial impetus for quality initiatives came in the early 1980s. It began as an employer initiative supported by state and federal governments. This resulted in 1984 in an Australia for Quality campaign. Second, a triparite Council (Technology Transfer Council [TTC]) was established with representatives from the Department of Industry, Technology and Commerce (DITAC), the Metal Trade Industry Association (MTIA), and Confederation of Australian Industry (CAI), (Jureidini 1991; Sohal 1991). The aim of these initiatives was to develop the
efficiency and effectiveness of enterprises through training in statistical process control, the introduction of just-in-time (JIT) inventory, and the introduction of quality circles (QC), (Sprouster 1984; TTC 1984; Ramsay, Samson & Sohal 1991; Zappala 1988). Following these initiatives an Australian Quality Council was established and Australian Quality Awards were introduced. The first documented example of a quality circle was at the Repco Bearing Company in Tasmania (Wells 1982, 1985).

By 1989-90 the first Australian Workplace Industrial Relations Survey (AWIRS 90) found 13% of all workplaces had QCs or productivity improvement groups, the proportion rising as high as 23% in manufacturing (Callus et al. 1991). Similarly JIT methods of production, based on the Toyota Production System (Ohno 1988; Monden 1993) were introduced into Australia in the 1980s, initially by Japanese vehicle manufacturers in Australia (Kriegler & Wooden 1985; Ramsay, Sohal & Samson 1990; Sohal 1991; Sohal, Ramsay & Samson 1993). Clearly the evidence shows significant usage of quality initiatives in Australia, but they occurred perhaps later and were less widespread that in the UK (Turnbull 1988b) or the USA.

Second, QCs in Australia, as in some other western countries, have shown a shorter operational time span than the Japanese experience. Dale and Hayward (1984) claim that within three years of being established in the UK 50% of QCs had failed. A 1991 survey conducted by the UK Advisory Conciliation and Arbitration Service found that 25% of QCs that had been introduced in the previous year had been discontinued (ACAS 1991:14). In Australia, the second Workplace Industrial Relations Survey in 1995 (AWIRS 95) found that between 1990 and 1995 although at the macro level the general incidence of QCs remained static across workplaces (wps) the incidence of QCs varied between industries. In manufacturing the incidence of QCs fell from 23% to 19% between 1990 and 1995. However, as shown in Table 2.1, by 1995 other tools of TQM had been introduced in 37% of all workplaces, especially larger workplaces (Morehead et al. 1997:506-507).
Table 2.1

Incidence of Quality Initiatives in Australian Workplaces 1990-1995

<table>
<thead>
<tr>
<th>Workplace</th>
<th>1990-QCs</th>
<th>1995-QCs</th>
<th>1995-TQM</th>
</tr>
</thead>
</table>
|                    | % workplaces (wps) | %wps | %wps |%
| All workplaces     | 13 | 13 | 37 |
| Sector             |      |      |    |
| Private            | 13 | 13 | 37 |
| Public             | 12 | 12 | 36 |
| Number of Employees|      |      |    |
| 20-49              | 9  | 11 | 30 |
| 50-99              | 13 | 14 | 37 |
| 100-199            | 19 | 17 | 44 |
| 200-499            | 19 | 16 | 63 |
| +500               | 23 | 23 | 69 |
| Industry           |      |      |    |
| Manufacturing      | 23 | 19 | 39 |
| Communication services | 22 | 22 | 62 |
| Electricity, gas and water supply | 13 | 25 | 66 |
| Accommodation, cafes and restaurants | 4 | 6 | 26 |
| Retail trade       | 4  | 9  | 36 |
| Government Administration | 3  | 8  | 29 |
| Personnel and other services | 3 | 16 | 29 |

Source: Morehead et al. 1997:506-507

This suggests that like other Western economies, Australian firms exhibited considerable interest in various approaches to quality management, however the longevity of any single quality initiative is uncertain.

Third, QCs in Australia, as in other Western countries, have functioned differently. Evidence suggests that despite similarity in the structure of QCs in Japan and Western companies, differences have been observed in the way QCs function to encourage employee involvement in the decision-making structures (Dore 1973; Bradley & Hill 1983). This is partly explained by differences in approach to decision-making between the two cultures. Hampden-Turner and Trompenaars describe the Japanese approach to decision making as ‘appositional’ in that:

the direction of initiation is upward,...junior suppliers of particulars bringing their information to more senior harmonizers...who weave this information into coherent visions and configurations. Relationships between hierarchical levels are close and intimate, emotionally as well as conceptually, since the parts must fit the whole to create effective harmonies (Hampden-Turner & Trompenaars 1994:98).
In this context QCs have an important role within the decision making process. In contrast they describe decision making in Western companies as ‘propositional’ or upward initiated through a hierarchical system in which:

orders are not vague and holistic, requiring interpretation from below, but are analytical, precise and specific and come from the top to the bottom (Hampden-Turner & Trompenaars 1994:98).

In this alternate context QCs have only a marginal role in decision making. Lawler and Mohram note that “generally (QCs) are restricted to recommend solutions for quality and productivity problems which management then may apply” (Lawler & Mohram 1985:66). Palmer claims QCs gave employees “a right to be heard, but with managerial prerogative still having the ultimate decision” (Palmer 1994:12). Evidence for this contention is provided in a 1990 survey of companies in the UK, which found issues discussed within QCs were primarily related directly to technical production decisions. Thus, quality issues were discussed in 95%, production costs in 72%, and output concerns in 66%, of QCs, while basic employee concerns were rarely featured, (ACAS 1991). Such findings led Hill to claim that there was little evidence of any change in the power relationship between management and the workforce (Hill 1991). Meanwhile there is little evidence of union involvement in QCs despite evidence from the USA that where unions are involved QCs are more successful (Cohen-Rosenthal & Burton 1993). In 1986 a survey of UK companies found only 11% of QCs had union representatives overseeing their joint steering committees (Industrial Society 1986). This has led unions to define QCs as:

part of a strategy by managers to bypass trade unions and create an individualistic relationship with employees, in order to increase the legitimacy of management in employees eyes (Batstone & Gourlay 1986, cited in Hill 1991:543).

Managerial control of QCs also contributed to negative responses to QCs. Guthrie blamed the 1970 failure of QCs in the UK based Ford Motor Company on the autocratic management of the company (Guthrie 1987). In a 1992 survey Marchington quoted employee complaints that QCs were merely “a device initiated by management to strengthen their control by appropriating employee ideas under the guise of greater workplace democracy” (Marchington 1992a:82).

In Australia a survey of 55 Australian manufacturers in 1991 found that 86% of companies considered quality initiatives to be an integral part of company business strategy (Ramsay, Samson & Sohal 1991). However it was found quality initiatives
were focussed on technical rather than people issues. This is illustrated by the findings of a 1990 study into JIT manufacturing in Victoria. This study found the introduction of JIT associated with training in the techniques of problem identification and solution, with little or no training in group dynamics:

in many companies management education about just-in-time stops at this technical level of understanding…..of equal importance….should be…..managements’ appreciation of the high level of communication and co-operation required (Ramsay, Sohal & Samson 1990:41).

Similarly, the AWIRS 95 survey found management view quality circles as a means to improve productivity, efficiency, and quality, rather than as a means to assist employees. Table 2.2 presents management objectives for quality circles.

Table 2.2
Management Objectives for Quality Circles
1995

<table>
<thead>
<tr>
<th>Objective</th>
<th>QCs</th>
<th>%wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase productivity, efficiency, performance</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Improving quality of product or service</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Increase customer or client satisfaction</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Improve communications</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Increase employee responsibility or autonomy</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Enhance skill levels</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Increase employee motivation or commitment</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Increase job satisfaction</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Team building</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Other objectives</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:192

Increased productivity, efficiency, and performance was identified in 65% of workplaces, improved quality in 50% workplaces, and improved customer or client satisfaction in 43% of workplaces, whilst only 33% identified increased employee responsibility or autonomy (Morehead et al. 1997:192).

Qualitative evidence also suggests low employee involvement in quality. In the earliest documented case study of quality circles at the Repco Bearing Company in Tasmania, it was found management had total control of the process (Wells 1982; McGraw & Dunford 1987a). Similar results were found in a study 10 years later of quality management experience at the Western Port Works of the Coated Products Division of BHP. This study found despite management claims that employees
participated in the quality reform process, employees complained of limited management commitment to the underlying principles of TQM. Indeed the study found no fundamental structural change associated with the process, and a dearth of tangible rewards for employees (Harber 1991:10-11).

This review of literature and evidence suggests that quality management fits the test for inclusion as a type of workplace reform. It is concerned with business competitiveness, its locale or focus of operation is the workplace, and it usually operates (in part) by reconfiguring human input into work. It is also clear it requires an increased participative role for employees, although the form this takes and its impact upon management decision-making processes suggests such workforce participation may be limited. The evidence in Australia shows widespread use of quality principles, although the extent of influence afforded to employees as part of the quality reform process varies, and effective implementation and training may be less common.

**Institutional Workplace Reform**

The second approach to workplace reform is institutional workplace reform. In Chapter One this was defined as - collective bargaining with unions for productivity improvements in exchange for wage gains. It was also observed that Australia had experienced three distinct waves of institutional workplace reform beginning with the ‘two tier wage system (1987-88), award restructuring (1988-90), and enterprise bargaining (1991 onwards). Inherent in all three waves was the requirement for improved productivity or efficiency and changes to be negotiated and implemented at the workplace. It did not follow, however, that all bargaining be conducted at the workplace level. Indeed this was emphatically not the case with many two tier and award restructuring negotiations which were conducted or co-ordinated at industry level. However, the level of productivity bargaining has progressively shifted towards the workplace, especially following the enactment of the enterprise bargaining principle by the Australian Industrial Relations Commission (AIRC – the Commission) in late 1991.
Institutional workplace reform has resulted in decentralisation of the collective bargaining process in many countries over the last 10 to 20 years (Turnbull 1988b; Archer 1992; Bray 1992; Bamber & Snape 1993; Wheeler 1993). For some countries, for example Britain, New Zealand, and Australia, this decentralisation of collective bargaining has been from the industry to the plant and enterprise level (Archer 1992; Bamber & Snape 1993; Hammarstrom 1993). For other countries, such as Sweden, the change has been from national central authority to industry level (Windmuller 1987). Finally, for other countries, it has merely confirmed workplace based negotiations (Kuwahar 1993; Wheeler 1993). However what appears common to all countries is that the accompanying decentralisation has been employer driven for strategic purposes rather than union driven, in Beans words, “as an expression of enhanced workplace power” (Bean 1996:90). This decentralisation has been accompanied by a change in the role of the State (Edwards 1994; Edwards, Belanger & Haiven 1994). In some countries the State has provided new procedural rules and regulations to enable decentralised bargaining within a legal framework. In other countries, decentralisation has been accompanied by deregulation of the labour market. This has been claimed to satisfy employer demands for greater flexibility and to reduce wages in the belief that “employment will be created if real wages and employers’ labour costs are allowed to fall without impediment” (Bean 1996:127-128). In these cases the role of the State has been to provide procedural rules and regulations which permit greater flexibility for managerial decision-makers and greater individualisation of employment relations (Keller 1991). As a result deregulation has been associated with a decline in collective bargaining in favour of individual workforce participation.

In Australia, during the late 1980s and early 1990s institutionalised workplace reform was designed as a union collective bargaining activity rather than at individual employees. The next section explains how this collective form of institutional workplace reform developed and its salient features.

Collective bargaining in Australia had traditionally taken place within a compulsory arbitration system provided by the State. Decisions of the Commission provided the
legal base for industry level awards. This was described by Walker as a system that “granted the unions demands for collective bargaining, but at the same time placed a check upon their power by restricting strikes” (Walker 1970:15). Change to this system began in 1983 with the Price and Incomes Accord between the Australian Labor Party (ALP) and the Australian Council of Trade Unions (ACTU), (ALP & ACTU, 1983). This has been described as a social contract that initially led to an increase in the degree to which wage determination was centralised (Carey 1988; Ewer, Higgins & Stevens 1987; Ewer et al. 1991; Curtain & Mathews 1991). Decisions of the Commission in the late 1980s reversed this trend towards centralisation. The first Decision in 1987 sought to encourage workplace based wage negotiations by offering a two-tier wage system (ACAC 1987). The first-tier granted an automatic cost-of-living adjustments of $10 a week for all awards. The second tier increase of up to 4% was conditional upon proof of agreement between the unions and management at the enterprise to remove restrictive work practices to enable demonstrable productivity improvements. Rimmer termed this a process of ‘managed decentralisation’ (Rimmer 1991:6). Outcomes from this round of bargaining were limited. Most agreements were still dominated by broad changes agreed at the industry level and many enterprise changes were confined to “internal numerical flexibility and functional flexibility” (Rimmer & Zappala 1988:31). It was, however, argued that this was an important first step in “the evolution of the wages system towards establishing a productivity culture and providing the move towards workplace bargaining” (Curtain, Gough & Rimmer 1992:22).

The second Decision of the Commission was handed down in August 1988. This decision provided for an immediate wage increase of 3% to all employees covered by awards with a further increase of $10 payable within six months. In return the parties had to agree to a fundamental review of all awards aimed at producing long-term benefits rather than short term cost savings. To this end the Commission specified several ‘Structural Efficiency Principles’ (SEPs) that had to be incorporated in the review (AIRC 1988). The SEPs included - the introduction of more flexibility in work patterns, the introduction of multi-skilling, a commitment to developing career paths for employees, agreement for work to be reorganised, and finally a commitment
to equal opportunity. Thus the agenda for collective bargaining was broadened from employment issues to production issues. In the words of the Commission:

It is not intended that this principle (award restructuring) will be applied in a narrow cost-cutting manner or to formalise illusory, short term benefits. Its purpose is to facilitate the type of fundamental review essential to ensure that existing award structures are relevant to modern competitive requirements of industry and are in the best interests of both management and workers (AIRC 1988:3).

The role of the Commission was reduced to ensuring agreements conformed to the SEPs, with responsibility for implementation assigned to joint consultative processes at the workplace (Curtain 1987; Curtain & Mathews 1990; Curtain & Mathews 1991).

Again outcomes were mixed. The 1990 Report into the future of Australian manufacturing claimed substantial gains in terms of developing a more co-operative culture:

Australia's traditionally antagonistic industrial relations climate, with its high incidence of industrial disputation, is giving way to a much more constructive approach between management and the trade union movement, reflected in the current program of award restructuring (AMC 1990:3).

However a later study in 1992 found gains had been limited to an increase in flexibility as demarcations were reduced and training plans to increase skills developed (Curtain, Gough & Rimmer 1992). Such limitations led to employer calls for deregulation of workplace bargaining and limited roles for unions (Hilmer et al. 1989). Unions responded by negotiating an agreement with the Federal Labor Government guaranteeing them a role in enterprise-based agreements, until the 1993 Industrial Relations Reform Act enabled the Commission to ratify agreements negotiated in non-union workplaces (Commonwealth Government 1993)\(^1\).

The third important Decision of the Commission was made in October 1991. This Decision reversed an earlier rejection of decentralised bargaining by the Commission in April 1991. This rejection was made on the basis that the parties to industrial relations have still to develop the maturity necessary for the further shift of emphasis now proposed (AIRC 1991a). However, under the October Decision, the Commission would ratify Enterprise Agreements negotiated at the workplace between management

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\(^1\) Given that these EFA's had only been in effect for a year before the AWIRS 95 was undertaken and the data collection showed little penetration of EFAs, the statistics presented focus on Enterprise Agreements
and the unions (AIRC 1991b). These Agreements were not to be restricted by any central wage principles except that they were to consider a broad agenda and to adhere to the existing SEPs. There was also to be no change to existing standard hours of work, or annual leave and long service leave conditions. The Decision was confirmed by an amendment to the Industrial Relations Act, 1988 that made it possible for the Commission to register Certified Agreements (Commonwealth Government 1992). Once again this decision led to calls by employer associations for deregulation (Angwin 1992). This was countered by calls from the unions for no further change (TUTA 1993).

Some positive outcomes were recorded from this decision. Within 12 months more than 470 Enterprise Agreements, covering approximately 15% of all employees under Federal awards, had been ratified. Over 70% of these came from manufacturing (DIR 1992a). By 1995 it was estimated that 48% of workplaces had some type of workplace agreement (DIR 1995:23). The AWIRS 95 found that in 69% of all workplaces management claimed that the negotiation of a workplace or enterprise agreement was important in achieving the organisation's goals (Morehead et al. 1997). Commitment to extensive change is shown by the fact that within a year it was claimed the agreements committed the parties to a diverse and innovative range of productivity indicators measuring both quantitative and qualitative factors (DIR 1992b). By 1993 a diverse range of production issues had been negotiated as well as basic employee issues of wages and working conditions (DIR 1993a). By 1995 there was an assorted range of issues included in Agreements as shown in Table 2.3 and Table 2.4. Although pay rates were still the major issue included in agreements, working hours, training, work practices and work organisation, were included in over 60% of agreements. Moreover, quality assurance and flexible labour organisation were amongst the most frequent work organisation changes (DIR 1995:106 & 109).
### Table 2.3

**Issues covered by Enterprise Agreements**  
**1995**

<table>
<thead>
<tr>
<th>Issues covered by Agreements</th>
<th>Enterprise Agreement (Certified) %wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay rates</td>
<td>94</td>
</tr>
<tr>
<td>Work hours</td>
<td>81</td>
</tr>
<tr>
<td>Training</td>
<td>68</td>
</tr>
<tr>
<td>Work practices or work organisation</td>
<td>65</td>
</tr>
<tr>
<td>Leave arrangements</td>
<td>63</td>
</tr>
<tr>
<td>Consultation or negotiation agreements</td>
<td>63</td>
</tr>
<tr>
<td>Grievance handling procedures</td>
<td>60</td>
</tr>
<tr>
<td>Occupational health and safety</td>
<td>52</td>
</tr>
<tr>
<td>Penalty rates</td>
<td>50</td>
</tr>
<tr>
<td>Discipline and dismissal</td>
<td>48</td>
</tr>
<tr>
<td>Child care or family leave</td>
<td>47</td>
</tr>
<tr>
<td>Performance appraisal, pay</td>
<td>45</td>
</tr>
<tr>
<td>Retrenchment and redeployment</td>
<td>44</td>
</tr>
<tr>
<td>Superannuation</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: DIR 1995:106

### Table 2.4

**Work Organisation Provisions in Enterprise Agreements**  
**1995**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Proportion of Enterprise Agreements %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Assurance, etc</td>
<td>28</td>
</tr>
<tr>
<td>Flexible labour organisation</td>
<td>23</td>
</tr>
<tr>
<td>New classification structure</td>
<td>17</td>
</tr>
<tr>
<td>Teamwork</td>
<td>15</td>
</tr>
<tr>
<td>Best Practice</td>
<td>11</td>
</tr>
<tr>
<td>Organisational restructuring</td>
<td>4</td>
</tr>
<tr>
<td>At least one of the above</td>
<td>53</td>
</tr>
</tbody>
</table>

Source: DIR 1995:109

Turning now to the implementation of these agreements. In its 1988 Decision, the Commission required management and unions in each workplace to establish a suitable consultative process to ensure that implementation of the restructured award fitted within the SEPs. By this Decision, the Commission hoped to extend to the workplace the co-operative consultative processes that had begun at the macro industry level between the union movement and government with the Prices and Incomes Accord (ACTU & ALP 1993). Such consultation had resulted in effective tripartite co-operation through the Economic Planning Advisory Committee, and the Australian Manufacturing Council, and an agreed blueprint for industry development (ACTU & TDC 1987). Management and employees were encouraged to embrace
joint consultation by the publication of an historic *Joint Statement on Participative Practices*, between the union movement and a major employer association (ACTU & CAI 1988). Union members were assisted in development of effective consultative mechanisms at the workplace through the publication by the ACTU of a *Blueprint for Changing Awards and Agreements* (ACTU 1988). In the metal industry the MTFU published a members guide entitled *Implementing Metal Industry 4.5% Agreements* (MTFU 1991). Further support for consultation within the industry came from the publication of several joint agreements on the new Metal Industry Award (MTIA & MTFU 1989; MTIA, ACM & MTFU 1991). While in the automotive industry jointly agreed consultative processes were part of the *Agreed principles for a new Automotive Industry Award* (FCAI & FVIU 1989). Finally, further union initiatives for reform towards ‘best practice unionism’ were suggested in the early 1990s (Ogden 1993a, 1993b).

Although it is difficult to accurately state what influence these reforms had on the establishment of workplace based Joint Consultative Committees (JCCs), a comparison of the findings of AWIRS 90 and AWIRS 95, summarised below in Table 2.5, gives some indication of change between these years (Morehead et al. 1997:506-507).
Table 2.5

Incidence of Joint Consultative Committees in Australian Workplaces 1990 and 1995

<table>
<thead>
<tr>
<th>Workplace</th>
<th>JCCs-1990 - %wps</th>
<th>JCCs-1995 - %wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>All workplaces</td>
<td>14</td>
<td>33</td>
</tr>
<tr>
<td>Sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>Public</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>Number of Employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-49</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>50-99</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>100-199</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td>200-499</td>
<td>25</td>
<td>68</td>
</tr>
<tr>
<td>+500</td>
<td>48</td>
<td>74</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>Education</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>Government administration</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>Electricity, gas and water supply</td>
<td>23</td>
<td>58</td>
</tr>
<tr>
<td>Construction</td>
<td>5</td>
<td>37</td>
</tr>
<tr>
<td>Accommodation, cafes and restaurants</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Retail trade</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:506-507

By 1995, as shown in Table 2.6, managers regarded JCCs as important for improving communication, workplace efficiency, and productivity

Table 2.6

Management Objectives for Joint Consultative Committees 1995

<table>
<thead>
<tr>
<th>Objective</th>
<th>JCCs %wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve communication</td>
<td>63</td>
</tr>
<tr>
<td>Improve workplace productivity, efficiency</td>
<td>52</td>
</tr>
<tr>
<td>Increase satisfaction, employee morale</td>
<td>36</td>
</tr>
<tr>
<td>Assist in implementing change</td>
<td>35</td>
</tr>
<tr>
<td>Improve quality of product, service</td>
<td>32</td>
</tr>
<tr>
<td>Reduce level of disputation</td>
<td>23</td>
</tr>
<tr>
<td>Help with the introduction of new technology</td>
<td>17</td>
</tr>
<tr>
<td>Reduce labour turnover and absenteeism</td>
<td>12</td>
</tr>
<tr>
<td>Improve safety, occupational health and safety</td>
<td>6</td>
</tr>
<tr>
<td>Other objectives</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:192

In 35% of workplaces management identified the JCC as having a role in assisting change and improving quality (Morehead et al. 1997:192).

Thus institutional workplace reform in Australia in the late 1980s and early 1990s led to decentralisation of collective bargaining to the enterprise. It also resulted in a broadening of issues subject to negotiation between management and unions into production related, and strategic issues, rather than purely wages and working
conditions. Finally it led to an increased proliferation of company level joint consultative committees. However, the role of these committees in workplace decision making appears to have been limited by management to immediate production matters.

From this discussion of institutional workplace reform, it is clear it fits the test for workplace reform. It is concerned with business competitiveness, its locale or level of operation is the workplace, and it operates by reconfiguring the role of the employee in the workplace. It is also clear enterprise bargaining frequently provided for increased workforce participation.

**Best Practice**

The third type of workplace reform is best practice. In Chapter One this was defined as “a comprehensive and integrated approach to continuous improvement in all facets of an organisation’s operations” (AMC 1994:iv). More specifically Rimmer et al. describe best practice as:

> a complex idea capturing concrete ways of doing better in all aspects of a business's-strategy, marketing, design, production, finance, accounting, supply, human resources and organisational decision making (Rimmer et al. 1996:7).

The theoretical base for best practice grew during the late 1980s from various studies on why Japanese manufacturers were performing better than those in Western economies. A team at the Massachusetts Institute of Technology (MIT) conducted one of these studies between 1986 and 1988 (Dertouzos, Lester & Solow 1989). The MIT study compared practices of American and Japanese manufacturers and concluded that there were six deficiencies in American practice. These were:

- Outdated production strategies (mass production and parochialism)
- Short time horizons
- Technological weakness
- Neglect of human resources
- Failure of co-operation
- Government and industry at cross-purposes.

The MIT study also observed business practices of several ‘leading edge’ manufacturing firms in the USA and concluded there were six key similarities between these firms. These were:
Simultaneous improvement in quality, cost and delivery;
- Close customer relationships
- Close supplier relationships
- Effective use of technology for strategic advantage
- Less hierarchical and less compartmentalised organisations
- Human resources policies that promoted continuous learning, teamwork, participation and flexibility

This built upon earlier claims by researchers such as Kochan, Katz, and McKersie that business strategies should include an integration of functions, tasks, customers, suppliers, and people. Such integration, they claimed, could only occur “when innovation at all three levels….(shop-floor, collective bargaining and strategic management)... are linked together in an integrated fashion” (Kochan, Katz & McKersie 1986:204).

On the basis of these findings the MIT study concluded there was need for companies which sought to be ‘best practice’ to develop an integrated change process focussed on five key imperatives. These were identified as:

- A focus on the fundamentals of manufacturing
- A new economic citizenship in the workforce
- A blend of co-operation and individualism within the enterprise
- Learning to live in the world economy
- Providing for the future

These principles require companies to decrease dependence upon government protection and replace it with new business strategies recognising the global market. Such an approach was consistent with earlier calls for traditional short-term financial controls, corporate portfolio management, and technology-driven production planning, to be replaced by long-term, integrative socio-technology strategies (Hayes & Abernathy 1983). The MIT Study specifically argued companies need a new approach to manufacturing. This conclusion was supported by the findings of a major international study in 1989 of the automotive industry (Womack, Jones & Roos 1990). This study found mass production principles resulted in poor quality product and uncommitted employees. The study recommended new ‘lean production principles’. Lean production describes a system of production using less of everything, as described by Jones:

> half the time and effort to design the product and half the human effort and tooling to make it, with half the defects and less than half the inventories (Jones 1992:191).

In this way Jones claimed lean production would replace mass production while preserving the best features of both craft and mass production and produce for
customers “twice the number of products for half the normal volume per model” (Jones 1992:191). There were five main elements to lean production - devolution of responsibility to employees; workteams; continuous improvement through employee involvement (kaizen); JIT delivery processes (kanban) to eliminate waste; and visual factory controls. Thus lean production was described as: 

teams of multiskilled workers at all levels of the organisation, ... highly flexible increasingly automated machines, ... careers structured to reward strong team players rather than those displaying genius in a single area (Womack, Jones & Roos 1990:63).

Such a production system, it was claimed, would replace ‘batch production’ with ‘flow processes’ as continuous improvement replaced ‘buffer stocks’. The Toyota Production System (1960) emphasised this approach at the Saturn Udevella plant, showing the successful transplantation of this production process into the West (Rehder 1994). In Australia such transplants began in the early 1980s with Mitsubishi (Kriegler & Wooden 1985), followed by Ford (Lansbury 1994), and were then translated into several component manufacturers (Lansbury & Hammarstrom 1991). Although there has been debate on the merits of lean production (Gahan 1991; Tolliday & Zeitlin 1992; Berggren 1993; Wood 1993; Appelbaum & Batt 1994; Mathews 1994), it is sufficient to recognise that it is seen as a variant of best practice reform.

Best practice has a new role for employees. All accounts of best practice and lean production emphasise human resources as an essential element. The MIT study argued for a system whereby employees actively collaborate rather than passively perform. Similarly Kochan and Dyer state workers need to be recognised for their value to the workplace, arguing “best practice is a term used to describe firms that seek to use human resources as a source of competitive advantage” (Kochan & Dyer 1992:72). It is argued lean production will release workers from being seen as “unskilled or semi-skilled workers tending expensive single purpose machines” (Womack, Jones & Roos 1990:53). This will occur as workers are given greater autonomy and flexibility and allowed to participate in the actual production process. In order to induce workers to accept this increased responsibility it is recognised that financial returns such as bonuses, profit sharing, and workforce ownership of the firm’s stock, should be offered so that mutual gains result (Cohen-Rosenthal & Burton
“success does not come from dictating compliance but from seeking to achieve common goals with all employees” (Cohen-Rosenthal & Burton 1993:vi). In return, unions are exhorted to develop more co-operative strategies, thus Cohen-Rosenthal and Burton claim:

the clock cannot be turned back to the days when unions got their way, the way forward is to challenge employers to manage better in ways that lead to greater employment security and higher incomes (Cohen-Rosenthal & Burton 1993:vi).

However, strategies developed for mutual gains are less easy to identify. Many researchers state there is no one best way for improving performance although they all agree some form of worker involvement is essential (Appelbaum & Batt 1994; AMC 1995). One influential model is that of teams which locate the source of competitive advantage and continuous improvement in the front-line, or production level, workforce (Appelbaum & Batt 1994).

Indeed in Australia best practice came to be broadly defined by the principles laid down by the Australian Best Practice Demonstration Program (ABPDP), (1991-96). The Program was conceived by the Australian Federal Labor Government as the means to “raise the efficiency of Australian enterprises to world standards” (Hawke, Keating & Button 1991:1.21). The program had two stated purposes. First, it aimed to identify the most effective methods and approaches to best practice reform. Second, it aimed to promote an understanding of preferred practices in order to stimulate other Australian enterprises in their adoption (AMC & DIR 1991). Under the ABPDP the Federal Government provided financial support for showpiece companies committed to the best practice principles set out below in Figure 2.1.
In return for funding, participating companies agreed to act as demonstration companies for others contemplating such reform (Hawke, Keating & Button 1991; AMC & DIR 1994a; ATC 1992). The program operated from 1991 to 1996 during which time over 100 firms became involved and a variety of changes were introduced. Companies selected for the Program were significantly influenced by the government’s objectives. First, 80% of participating companies came from the manufacturing sector given the government objective of encouraging the manufacturing sector to become world’s best practice. Second, almost half of all companies were large to medium-sized business employing more than 500 persons, with around 40% being foreign owned. Finally, over 60% of companies were located in the manufacturing hub of the Eastern Australian states of New South Wales and Victoria. Most projects were confined to a single site that belonged to a larger business (Rimmer et al. 1996). Second, the government sought to develop management and union co-operation upon best practice. Accordingly, all company proposals required union endorsement.

study of the outcomes of the first 42 companies participating in this Program was undertaken (Rimmer et al. 1996). As set out in Figure 2.2, nine key elements of best practice were included in an evaluative framework.

<table>
<thead>
<tr>
<th>Elements of Best Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOALS</strong></td>
</tr>
<tr>
<td>Strategy</td>
</tr>
<tr>
<td><strong>OPERATIONAL PRACTICES</strong></td>
</tr>
<tr>
<td>Organisational Structures</td>
</tr>
<tr>
<td>Technology</td>
</tr>
<tr>
<td>Customer-Supplier relationships</td>
</tr>
<tr>
<td>Process Improvement techniques</td>
</tr>
<tr>
<td>People Management</td>
</tr>
<tr>
<td><strong>INFORMATION ENABLERS</strong></td>
</tr>
<tr>
<td>Measurement and control systems - benchmarking</td>
</tr>
<tr>
<td><strong>CULTURAL ENABLERS</strong></td>
</tr>
<tr>
<td>Change leadership</td>
</tr>
<tr>
<td>Empowerment</td>
</tr>
</tbody>
</table>

Source: Rimmer et al. 1996.

These elements included the six key similarities of leading edge companies outlined by the MIT study - an integrated strategy, new operational practices (teams), technology, closer customer and supplier relations, process improvement techniques and improved people management. To this were added what were termed enablers for change. These included information enablers – measurement and control systems and benchmarking to monitor performance which impact directly on cost, quality, and delivery outcomes. Also cultural enablers - change leadership and empowerment of employees - were identified.

Using this framework the Study found the experience of best practice varied between companies. More than 80% of the 42 companies had a formal strategy aimed at process improvement. All companies had adopted mechanisms for process improvement and over 80% had developed processes to measure outcomes. Over
70% of companies had invested significantly in technology in the previous five years. Over 60% of companies professed a commitment to greater employee participation in day to day activities through teams, however, as shown in Table 2.7, only in 33% of companies had direct employees been empowered with substantial power over their daily work. Further in only two companies had this been extended to direct employees being involved in strategic decision-making.

### Table 2.7

<table>
<thead>
<tr>
<th>Change</th>
<th>Number of firms.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEAM STRUCTURES</strong></td>
<td></td>
</tr>
<tr>
<td>no active encouragement of team ethos</td>
<td>5</td>
</tr>
<tr>
<td>no permanent teams, but team ethos actively encouraged</td>
<td>10</td>
</tr>
<tr>
<td>permanent teams for direct employees only</td>
<td>24</td>
</tr>
<tr>
<td>permanent teams for direct and indirect employees</td>
<td>3</td>
</tr>
<tr>
<td><strong>EMPLOYEE EMPOWERMENT</strong></td>
<td></td>
</tr>
<tr>
<td>direct employees have limited control over daily work</td>
<td>27</td>
</tr>
<tr>
<td>direct employees have substantial control over daily work</td>
<td>12</td>
</tr>
<tr>
<td>direct employees control own work, and are involved in strategic decision making</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Rimmer et al. 1996:55-59

In Australia teams are a relatively new phenomena. The 1990 AWIRS found little evidence of teams in Australian workplaces although by 1995 the incidence of semi or fully autonomous work groups (SAWGs) had increased significantly as shown in Table 2.8 (Morehead et al. 1997:507).
However, there is little in depth study of their operation. This requires further exploration.

From the discussion of best practice it is clear it fits the test for workplace reform. It is concerned with business competitiveness, its locale is the workplace, and it operates through reconfiguring the human input into work. It is also clear the role of the employee changes as the reform process develops, and workforce participation is an essential element of this type of workplace reform, although its exact form varies.

In summary, the literature on change associated with all three reforms chosen for analysis in this thesis show each fit the test for workplace reform. They are all concerned with business competitiveness, the level of change is located at the workplace, and each operates through varying the human input into work. It is also clear each reform process relies on a new role for the employee, which requires greater commitment to company performance through increased workforce participation. However workforce participation is not a singular term but indeed may be variously
described. Accordingly, the next section of this chapter explores the literature upon workforce participation.

**Workforce Participation**

Pateman (1970) described participation as the degree to which employees participate in final decision-making. From a study of participation at the shop floor and company level she identified two forms - partial and full - participation. Partial participation she described as occurring in joint consultative committees in which elected workforce representatives influence decisions but management has final decision making power. Full participation occurs in shop-floor work groups in which each member had equal power over the outcome. A third form was added later to explain circumstances in which employee influence on decision-making is more apparent than real (termed pseudo participation).

Wang (1974) defined workforce participation in terms of degree of worker influence over decisions. He designed a matrix of workforce participation that enabled participation initiatives to be identified by type (information sharing, consultation, joint decision-making, and self-management), by level (shop-floor, departmental, organisational, and corporate), and by form (executive and administrative). Typical examples of types of participation identified in this matrix are:

- shop floor level - consultation between individual managers and employees or between co-workers within work teams.
- departmental level - suggestion schemes for information sharing between individuals, or committees to assist consultation between representative managers and employees.
- Company and corporate level consultation – either joint decision-making if worker-directors are appointed or co-determination or self-management – depending on the degree of worker control and profit sharing Wang (1974)

Walker (1975) defined worker participation in terms of the degree of worker involvement in decision making. He described this as “the extent to which workers, while remaining in workers’ positions, may take part (directly or through representatives) in certain functions defined as managerial” (Walker 1975:435). He
claimed that in order to understand participation it is necessary to assess the practice through empirical study of the:

- Scope of participation – the range of managerial functions in which employees take part
- Degree of participation – how far employees influence managerial functions
- Extent of participation – the proportion of workers who participate.
- Areas of authority and managerial functions in which workers take part
- Extent to which employees participate through profit sharing or other schemes in the results of the enterprise.
- Form of participation (Walker 1975:438).

Although many other writers have defined workforce participation, many are variations around these themes. Accordingly for the purpose of this thesis these definitions are sufficient. There are two common features of these definitions. First is the notion of power distribution between managers and employees. Second is the identification of two principle forms of participation. First there is individual participation by employees at the work area or shop floor (direct participation). Lansbury (1980) gave the example of SAWGs at the departmental or work level, or self-management at corporate or enterprise level. Second there is representative participation by elected employee delegates to departmental or organisation level JCCs. Lansbury (1980) gave the example of JCCs at departmental or work level, or co-determination at the corporate or enterprise level. Given the division into representative and direct participation this requires further discussion.

**Representative Participation**

Representation of workers in industrial relations has traditionally been through unions. Early literature upon unions claimed that workers are best represented by trade unions organised as representative democracies. Industrial democracy, it was argued, can only be achieved by union outside the organisation engaging in collective bargaining with managers inside the organisation (Webb & Webb 1897). This argument was questioned in the 1960s by writers such as Flanders (1968) who argued that collective bargaining from outside the organisation may confine worker representation to economic, or labour market matters, rather than to enable an extension into power and control, or labour process matters. Clegg (1961) stated that although collective bargaining should be the prime focus of union activity it was possible for workers to be involved at lower levels of management where they have specialist knowledge.
This argument was reiterated in the 1970s and 1980s as unions began to explore ways to counter managerial power and reduce the frontiers of control between managers and workers (Edwards 1979; Brown 1981; Batstone 1984, 1988; Millward & Stevens 1986; Sisson 1987). Indeed Poole argued that participation within organisations had the potential to give workers more control over their working lives (Poole 1975).

In more recent times arguments for greater workforce participation have come from managers rather than unions. This has originated from arguments that greater workforce commitment is needed if companies are going to become more competitive. Writers such as Ramsay (1977) argue that this management support for greater workforce participation has come merely to counter any apparent or threatened redistribution of power towards the workforce. His study of management support for workforce participation in Britain in the 1900s led him to term such periods ‘Cycles of Management Control’. During these periods, he argued, managers sought to “combat labour organisation, improve labour productivity, and overcome resistance to change….to encourage the workforce to adopt an enterprise consciousness” (Ramsay 1977:485). As a result he cautioned against too easy an acceptance of managerial initiated participative practices. Similarly Kelly and Kelly (1991) argue management is willing to support workforce participation “only as long as they yield profitable results and do not impinge on their own power” (Kelly & Kelly 1991:41). This, they claim, has resulted in little change to ‘them and us’ attitudes as “workers often lacked choice over participation…[while there is]…a lack of institutional support for the schemes by senior management” (Kelly & Kelly 1991:25).

Discussion continues in the industrial relations literature as to how best to use workforce participation to share power more evenly between managers and employees. In Europe during the 1970s legislation was passed to ensure election of worker representatives to Boards of Directors and works councils. For example Sweden passed the Board Representative Act in 1972 followed in 1976 by the Codetermination at Work Act. Germany passed similar legislation in 1972 (Works
Constitution Act) and 1975 (Codetermination Act). However in more recent years legislative support for workforce participation has declined. As Clarke states:

the movement to enhance workers’ participation by statutory means has ‘run out of steam’...Instead it has been replaced by employer initiated enterprise based schemes aimed to elicit higher levels of employee commitment (Clarke 1993:259).

In Australia the union movement did not develop a policy on industrial democracy until 1975 (ACTU 1975, 1977). Even then implementation of the policy was confined to the establishment of JCCs on specific issues such as new technology and occupational health and safety matters (Pritchard 1979; Lansbury 1980; Lansbury & Prideaux 1980; Vaughan 1984; Davis & Lansbury 1986; Teicher 1992). Even the signing of the Accord between the ALP in government and the ACTU (ACTU & ALP 1983) had little impact on enterprise level representative participation apart from the legislative requirement that each government department develop industrial democracy plans (Public Service Reform Act 1984). Vigorous debate upon the issue of industrial democracy and workforce participation between the union movement (who favoured industrial democracy supported by legislation) and employers (who favoured voluntary workforce participation) led to the release in 1986 of a major government Policy Discussion paper on industrial democracy (DEIR 1986). However the Paper did not seek to resolve the debate but simply defined industrial democracy as the goal, and workforce participation as the means to achieve this goal. Thus an active campaign by the union movement to introduce representative participation was not evident until the Commission Decisions on institutional workplace reform in the late 1980s as explained earlier.

Even when JCCs were established in the early 1990s, their operational effectiveness in changing the power balance between workers and managers is disputable. AWIRS 95 data shows that by 1995 around 90% of JCCs were meeting at least once a quarter (Morehead et al. 1997:194). However, as shown in Table 2.9, issues before the committees were principally confined to basic employee and production related matters, rather than company strategy. Industrial relations concerns of wages and working conditions were discussed in only 38% of committees. This suggests that
collective bargaining by unions from outside the organisation remained the most important pay determinant. The least frequently discussed issues were financial and investment decisions. This suggests that management retained control over company strategic decisions.

Table 2.9

<table>
<thead>
<tr>
<th>Issue</th>
<th>% Committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work organisation</td>
<td>81</td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td>59</td>
</tr>
<tr>
<td>Introduction of new technology</td>
<td>52</td>
</tr>
<tr>
<td>New products or service lines</td>
<td>40</td>
</tr>
<tr>
<td>Pay and conditions</td>
<td>38</td>
</tr>
<tr>
<td>Equal Employment Opportunity Affirmative Action</td>
<td>38</td>
</tr>
<tr>
<td>Individual grievances</td>
<td>36</td>
</tr>
<tr>
<td>Discipline of employees</td>
<td>27</td>
</tr>
<tr>
<td>Financial, investment decisions</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:194

The outcome was that effectiveness of JCCs was confined to improving communication rather than significant improvement in product or service quality as shown in Table 2.10.

Table 2.10

<table>
<thead>
<tr>
<th>Issue</th>
<th>Improved %wps</th>
<th>No change %wps</th>
<th>Deteriorated %wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication between management and employees</td>
<td>82</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Ease with which change can be introduced</td>
<td>72</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Workplace performance</td>
<td>66</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Product or service quality</td>
<td>59</td>
<td>39</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:195

Direct Participation

That employees require a supportive social environment in order to find work satisfying emerged in literature early in the 1900s. The Hawthorne studies and Lewin’s work on teamwork gave support for this concept (Mayo 1933; Roethlisberger & Dickson 1939; Lewin 1947). However, in keeping with a unitarist approach to management, the emphasis was upon benevolent managers providing a work
environment in which employees can satisfy their hierarchy of needs (Maslow 1954). During the 1960s discussion began to focus on participative leadership (Herzberg, Mausner & Synderman 1959; Herzberg 1966; McGregor 1960). This led to discussion about job and work redesign. On the one hand there were calls for jobs to be redesigned to enrich and enhance the quality of working life through job rotation and job enlargement (Davis & Taylor 1972; Kanter 1978; Buchanan 1979; Gustaven 1992). On the other hand there were calls for work redesign based on socio-technical systems in which work tasks are devolved to SAWGs (Emery 1959, 1991; Emery & Thorsud 1977; Cummings 1978; Dunphy 1981; Trist 1981; Dunphy & Stace 1992; Gustaven 1992; Trist & Murray 1993). Both approaches led to increased emphasis on employee participation in work teams, although these were differences as to the scope of work teams responsibility.

By the late 1980s a major study into the international automotive industry extolled the competitive advantages resulting from lean production processes which rely upon “the maximisation of the number of tasks and responsibilities to those workers actually adding value” (Womack Jones & Roos 1990:99). Lean production had developed in Japan, influenced particularly by the experiences of Toyota (Ohno 1988). By the mid 1990s experimentation in an increased role for workers resulted in a variety of suggestions. First, there were temporary teams, for example QCs, bought together for a limited life for a specific purpose (Keller 1995). Second, there was a range of permanent teams, including self-managing teams (Bryant, Farhey & Griffiths 1994; Katzenbach & Smith 1994), self-leading teams (Manz 1990), self-directed teams (Ray & Bronstein 1995), empowered teams (Wellins, Byham & Wilson 1991), high performing teams (Rayner 1993), and superior teams (Kinlaw 1991).

Several features characterise all these teams. First, they are management inspired. In 1995 Keller claimed that work teams are:

more and more key elements of management demands, motivated by purely economic objectives with employees and their representatives pursuing partially differing ideas (Keller 1995:323).

Second, management and employee team members embark upon a mutual exchange. This is described by Mahoney & Watson, as a “reciprocal extension of trust and
discretion…(which)...creates a social exchange of obligations extending beyond those in the economic exchange of the employment contract” (Mahoney & Watson, cited in Fernie & Metcalf 1995:381). In 1995 an influential report into managerial practice in Australia exhorted management to adopt a less control and more leadership style and “use the local knowledge of all employees” (Karpin 1995:21). Third, individual team members contribute their technical expertise on issues related to their immediate work area through permanent SAWGs.

These suggestions are designed to increase employee satisfaction as a means to improving performance rather than to change the power relationship between managers and employees. Marchington et al state that teams “by their nature are not designed to alter substantially the established structure of governance in organisations” (Marchington et al. 1993:557). Rather they are designed to increase employee commitment through direct employee involvement (Marchington 1992; Marchington et al. 1992; Marchington et al 1993; Capelli & Rodgovsky 1994). Indeed some writers claim teams increase management surveillance and control, diminish employee discretion, increase stress through increased pacing, and create new peer group control pressures (Babson 1993, 1996; Graham 1995; Stewart & Garrahan 1995; Delbridge 1998; Parker & Slaughter 1998a, 1998b). However other writers argue teams at least suggest new management attitudes towards worker control in which “management’s perception of the legitimate boundary of autonomy have been widened” (Buchanan 1989:259). While Kitay and Lansbury claim teams lead to the replacement of supervisors by team leaders as the first step towards teams “ultimately…managing themselves” (Kitay & Lansbury 1995:45).

Evidence in Australia as to the impact of various forms of direct participation on productivity improvement and the role of workers is inconclusive. AWIRS 95 found managers considered QCs and SAWGs to have positive impact on all issues related to performance, introduction of change, product or service quality and communication, as shown in Table 2.11.
Table 2.11

<table>
<thead>
<tr>
<th>Issue</th>
<th>Improved %wps</th>
<th>No change %wps</th>
<th>Deteriorated %wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication between management and employees</td>
<td>82</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Ease with which change can be introduced</td>
<td>80</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Workplace performance</td>
<td>87</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Product or service quality</td>
<td>82</td>
<td>16</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:191

Workplace delegates also believed these initiatives led to employees having an increased say at the workplace, as shown in Table 2.12, although there was less conviction this led to increased efficiency.

Table 2.12

<table>
<thead>
<tr>
<th>Achievements of Quality Circles and Autonomous Work Groups</th>
<th>% wps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow employees to have their say</td>
<td>79</td>
</tr>
<tr>
<td>Improve quality</td>
<td>69</td>
</tr>
<tr>
<td>Allow employees to make decisions</td>
<td>65</td>
</tr>
<tr>
<td>Increase job satisfaction</td>
<td>58</td>
</tr>
<tr>
<td>Improve customer satisfaction</td>
<td>52</td>
</tr>
<tr>
<td>Save money and increase efficiency</td>
<td>47</td>
</tr>
<tr>
<td>Get employees to work harder</td>
<td>27</td>
</tr>
<tr>
<td>Other achievements</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Morehead et al. 1997:191

Thus, although there is evidence direct participation does increase the ability of employees to have their say, this appears to be on issues directly related to the immediate work area, rather than broader company issues.

The Problem

It has been shown in this chapter that the three forms of workplace reform – quality management, institutional workplace reform, and best practice – have been associated with workforce participation. This thesis seeks to advance understanding of the precise relationship between the various forms of workplace reform and workforce participation. The literature on workforce participation suggests that representative
participation has greater potential to change the power relationship between employees and managers, while direct participation has greater potential to increase employee commitment to the enterprise. However this is inconclusive. Accordingly, in order to assist empirical analysis, a framework of participative practices devised by Marchington will be used (Marchington 1990). This is presented in Table 2.13.

Table 2.13

<table>
<thead>
<tr>
<th>Four Elements of Employee Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>type of participation</strong></td>
</tr>
<tr>
<td>the extent to which the employee or, employee representative can influence the final decision</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>form of the participation</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>level at which the participation takes place</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>subject matter</strong></td>
</tr>
<tr>
<td>issues under discussion</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Source: Marchington 1990

This framework enables workforce participation to be classified according to four elements:

- type of participation - the extent to which the employee or employee representative can influence final decisions
- form of participation - whether it is direct face to face between management and employees or indirect between worker representatives and management
- level of participation - whether it is work area specific, departmental or whole enterprise
- subject matter - whether issues discussed fall within basic employee, production, or strategic matter.

Conclusion

A brief resume of the literature review shows that each of the three selected workplace reform processes chosen for detailed analysis in this thesis. It was found that each of
the reform processes fit the test for workplace reform. They are all concerned with business competitiveness, for each change is located at the workplace, and each operates through reconfiguring the human input into work. The difference between the processes rests principally on the focus of the reform. Quality management reform seeks to introduce continuous quality improvement to the production process and thus operates primarily in the immediate work area. Institutional workplace reform seeks to decentralise the bargaining process to relate wages and working conditions more closely to enterprise productivity and efficiency and thus operates at the company level, with some consequences for the work area. Best practice reform seeks an integrated change process within a strategic plan for the future.

Workforce participation was found to be more difficult to define given the various theories guiding its practice. However two principle forms of participation – representative and direct – were distinguished. Representative participation is more closely associated with questions of power distribution and thus is preferred by unions, while direct participation has greater potential to increase employee commitment to the enterprise and is thus preferred by managers.

The link between these two bodies of literature can be explained through a hypothesised relationship as shown in Table 2.14. This suggests that there is a link, on the one hand, between quality management and best practice reform and direct workforce participation. On the other hand there is a link between institutional workplace reform and best practice and representative participation.

Table 2.14

<table>
<thead>
<tr>
<th>Workplace Reform</th>
<th>Direct Participation</th>
<th>Representative Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Management</td>
<td>QCs</td>
<td></td>
</tr>
<tr>
<td>Institutional Workplace Reform</td>
<td></td>
<td>JCCs</td>
</tr>
<tr>
<td>Best Practice</td>
<td>SAWGs</td>
<td>JCCs</td>
</tr>
</tbody>
</table>
The relationship shown is premised on two competing views of the parties of workforce commitment. A union/pluralist views sees power sharing through representative institutions as a necessary condition for employee willingness to participate in reform. A managerial/unitarist view sees the need for no more than direct engagement of employees in direct decision-making upon continuous improvement within a framework of managerial dominance. Best practice, it would seem, combines elements of the two.

The following chapter turns to the Australian automotive industry in which case studies were conducted to investigate this proposed relationship.
CHAPTER THREE

THE AUSTRALIAN AUTOMOTIVE INDUSTRY

Introduction

This chapter seeks to describe economic and industrial changes in the Australian automotive industry primarily between 1985 when the Vehicle Industry Plan was introduced (Button 1984), and 1991 when government policy through to the year 2000 was announced (Hawke, Keating & Button 1991). This time period encompasses the introduction of all three reform processes under analysis in this thesis. Reference to events outside this time period is made for clarification where necessary. However, at the end of this Chapter a postscript has been added to summarise output, export, and employment trends to the mid 1990s to provide a time frame in which to see the results of reforms. This description of the industry is undertaken in order to explain why workplace reform was adopted. For this reason, it is primarily concerned to show a developing crisis in the years up to 1991. Information for this Chapter came principally from Government Reports. These include periodic reports into the state of the automotive industry, annual reports by the Automotive Industry Council (AIC) and the Automotive Industry Authority (AIA), and two recent reports by the Industry Commission (IC). Reference is also made to an international study of the automotive industry (MIT). The chapter begins with some observations on manufacturing in general. It then looks at the Australian automotive industry, analysing trends in performance indicators associated with the market, production, and employment. The chapter concludes with an examination of the broad pattern of workplace reform in the industry.
Australian Manufacturing

Australia, it has been argued, has never had a natural competitive advantage in manufacturing. Manufacturing industry grew substantially only after the Federal Government introduced a protective ‘infant industry’ manufacturing policy after World War Two. This policy aimed to reduce Australian reliance on manufactured imports (Bell 1993). The protection afforded manufacturing by these policies resulted in a doubling of the contribution of manufacturing to gross domestic product from the beginning of the century to reach almost 28% in 1963 (Jackson Committee Report 1975). However, during the early 1970s the sector came under scrutiny concerning the appropriate form and level of government support. The government was persuaded to reduce tariffs to increase general economic welfare while commissioning studies into long term adjustments. These studies included the Green Paper produced by the Committee to Advise on Policies for Manufacturing Industry (Jackson Committee Report 1975), the White Paper on Manufacturing Industry (Commonwealth Government 1977), and the Study Group on Structural Adjustment (Crawford Report 1979). Each of these identified similar problems - manufacturing firms operated on a small scale with relatively poor productivity, outdated or inappropriate technologies, inadequate management techniques, and poor labour relations. Each report concluded that restructuring was crucial before tariff protection could be removed without fundamental damage to the industry.

A critical part of this restructuring was to introduce change to improve management-employee relationships to reduce “mutual suspicion [and] distrust” (Jackson Committee 1975:104-105,108). An important element of this change was to increase employee participation in decision making. The Jackson Committee recommended decision-making procedures “to accept the practical usefulness of allowing interest groups real involvement and participation” (Jackson Committee 1975:16). The Crawford Report argued “employee participation in the development of plans affecting them increases the scope for producing solutions which minimise disruptions” (Crawford Report 1979:44). However little was done by government, employers, or unions to increase workforce participation in management decision-making.
The Federal Labor Government elected in 1983 took a more interventionist approach to industry through the Prices and Incomes Accord (ACTU/ALP 1983). Manufacturing industry policy was still premised on the need to reduce protection, but it was recognised this had to be done in a way to provide for the growth of manufacturing industry as the international importance of primary and mineral industries declined. In the government’s words “the days of our being able to hitch a free ride in a world clamouring, and prepared to pay high prices, for our rural and mineral products, are behind us” (Hawke, Keating & Button 1991:1.1). Accordingly, the Australian Manufacturing Council (AMC) released several plans for manufacturing industry growth, offering financial assistance to companies demonstrating strategic growth plans. A further condition was that Plans had to be discussed and endorsed by both management and unions (Curtain 1987). Industries targeted for such assistance were automotive, heavy engineering, steel, and textile, clothing and footwear industries (BIE 1986). In addition in 1988 the government introduced a new tariff reduction program. This set the target of a maximum tariff level of 15% by 1992 for all industries except passenger motor vehicle (PMV) and textile, clothing and footwear industries.

At the same time the government demonstrated support for workplace reform. Specific proposals spanned all three types of workplace reform distinguished in Chapter Two. The government in 1981 endorsed quality management through the Australia for Quality Campaign (Sprouster 1984). Institutional workplace reform was affirmed between 1987 and 1991 through government-union agreements in Accords Mark III-VI. Best Practice reform also gained government support in 1991 through the program for competitive workplace reform (AMC & DIR 1991).

While workplace reform was widely recommended for manufacturing as a whole, the automotive industry was given high priority because of the economic pressures on it and fears this industry was under threat.
Developments in the Australian Automotive Industry

This section first describes the structure of the Australian automotive industry including, passenger motor vehicle assembly (PMV) and component production as represented by the 33 major specialist component producers (SCP). It then outlines economic pressures on the industry after 1985 showing trends in market indicators such as sales, price, and quality, and in performance indicators, such as production and productivity. Particular attention is afforded to both technical (capacity, scale, and investment) and personnel (labour productivity, industrial relations, and management practices) influences upon productivity. Finally industry profitability and employment performance are described.

The Australian automotive industry has a number of sub-sections including, sale of new and used vehicles, replacement parts and accessories, vehicle repair, component and vehicle manufacturing, design and engineering services, and other services such as freight, finance and insurance. This thesis is concerned with the twin sectors of passenger motor vehicle manufacturing and specialist component production. The automotive industry has been a prominent special case in Australian manufacturing industry policy. It is protected, along with textile, clothing, and footwear industries, by the highest tariffs (in 1990 more than three times greater than the manufacturing sector as a whole). A few large, overseas-owned firms dominate it. Finally, it is especially close to government in the application of industry plans (Beruldsen 1989; IC 1990a:1).

During the 1980s the automotive industry share of manufacturing stood at around 7% of turnover and 5% of value added. Over this time the value added by the industry represented around 1% of Australia’s total gross domestic product (IC 1990a:23). The industry contributed nearly 6% of manufacturing employment, supporting a 60/40 ratio of male to female employees. Although the industry (including component manufacturers) accounted for only 1% of purchases from the rest of the economy, for some manufacturing industries, including basic metals, fabricated metal products, and

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2 This does not include light commercial vehicles and other commercial vehicles
leather, rubber, glass and fabrics, it is an important customer. Furthermore, the industry has strong technological links with a range of other manufacturing and service industries (IC 1990a).

Despite special government tariff protection from 1907 aimed to encourage manufacture of vehicle bodies and components, the industry did not develop to a viable size until after significant additional government tariffs and import licensing restrictions were introduced in the 1940s and 1950s. This assistance was aimed at attracting investment and production skills from American and British manufacturers. Uhlenbruch claims the Australia’s automotive industry is fundamentally different from the three world leaders, “the main difference lies in the simple fact that Australia has no indigenous automotive industry” (Uhlenbruch 1986:15). The Australian automotive industry has been built upon foreign design, technology, and capital. Although the assembly of motor vehicles commenced in Australia in 1925, not until November 1948 was the first Australian built car, General Motors (GM) Holden, released. The British Motor Corporation (BMC), Ford, and finally Chrysler followed in the next 14 years. These companies were attracted by incentives from federal and state governments as well as profitable growth in the Australian domestic market. By 1960 the Australian automotive industry as a whole consisted of nearly 300 companies employing over 30,000 people (IC 1997:K1).

The level and complexity of government assistance was increased significantly in 1965 with the introduction of the first 10-year Motor Vehicle Plan. This Plan aimed to increase local content used in vehicle production by establishing minimum levels of local content, 95% being the highest level. If PMV assemblers used more than the minimum local content they could import components free of duty (IC 1997:K9). A Car Component Manufacturing Program complemented this strategy. Specified components (excluding raw materials) were deemed to have 100% local content. The result of these initiatives was to increase the number of component manufacturers in Australia, many being foreign owned subsidiaries. The Plan was renewed in 1975 but at reduced levels of protection. In 1979 an Export Facilitation Scheme for vehicle producers was introduced. In 1981 this was extended to component producer and
replaced the Car Component Manufacturing Programs (Beruldsen 1975). Finally in 1984 the governments ‘Button’ superseded all previous plans (Button 1984).

The Button Plan reversed the previous protection policy and replaced it with strategies to encourage greater industry efficiency and quality at lower prices. Tariffs and local content requirements were to be reduced and import quotas abolished in order to expose companies to international competition. This was to be done gradually, a 2.5% tariff reduction to occur annually over 10 years, to reduce the average to 35% by January 1992. At the same time the industry was encouraged to restructure to take advantage of economies of scale by reducing both the number of companies and number of models produced. A target of no more than three assembly companies was established, and companies were encouraged to reduce production to no more than six models. Penalties were imposed for low volume production and access to export facilitation opportunities was increased (Button Plan 1984; IC 1997:359).

In 1984 there were five PMV assemblers, reduced from a high of ten in 1960 (some quite small such as Australian Motor Industries). These PMV assemblers produced 13 vehicle models with annual production volumes averaging only 28,000 per model and 46,000 per plant. This compared unfavourably with the internationally accepted efficiency level of 200,000 per plant (IC 1990a:31). To assist the restructuring process a national tripartite Automotive Industry Authority (AIA) was established, Labour Adjustment Training Schemes were introduced, and a Component Development Grants Scheme was established to encourage technological advancement and greater consultation between management and the workforce. In 1988, following a mid-term review, quantitative import restrictions on PMVs were removed. This left tariffs the sole form of protection against vehicle imports.

Outcomes from implementation of these Plans varied (AIC 1986a; 1986b). Between 1985 and 1990 the nominal rate of assistance³ for the automotive industry decreased from 85% to 36%, with a projected further decline to 30% by 1992. This was

---
³ estimate of the price raising effects of taxation
estimated as the equivalent to a decline in the effective rate of assistance\textsuperscript{4} from over 250\% to 127\% (IC 1990b:14). By 1992 the number of PMV assemblers was reduced to four following the withdrawal from local production in 1991 of the Nissan Motor Company. The PMV assemblers are - the Ford Motor Company of Australia, (Ford), General Motors Holden’s Automotive Limited (GMH), Mitsubishi Motors Australia Limited (Mitsubishi), and the Toyota Motor Corporation Australia (Toyota). By 1992 there were only ten operating plants following closure of the GMH Woodville plant (IC 1997:359). The geographic dispersal of plants throughout Australia had also been reduced to only two States, Victoria, and South Australia, following plant closures in Queensland and New South Wales. This led the government in 1991 to extend the scheduled tariff reductions of 2.5\% per year to the year 2000, at which time tariffs were to be reduced to around 15\% on average. Meanwhile, the 15\% duty-free entitlement was continued, and the export facilitation scheme expanded to make it more flexible and market oriented (Hawke, Keating & Button 1991).

Turning to components, it is difficult to determine the exact size of the sector. It is made up of both first tier suppliers providing components to PMV assemblers, and second tier suppliers supplying first tier suppliers with components for subassemblies, although the PMV assemblers themselves also undertake component production. Of the estimated 500 firms supplying components to vehicle producers, 200 are considered large, with the largest 35 firms producing about 80\% of sales for the sector\textsuperscript{5}. These 35 firms are referred to as Specialist Component Producers (SCPs). This thesis is mainly concerned with this group (AIA 1988, 1991, 1993; IC 1990a, 1997). Components supplied to the PMV assemblers are either original equipment (OE), components used in the assembly or manufacture of PMVs, or replacement parts and after-market components (AM) capable of being fitted to vehicles at any time after final production. In 1991 around 63\% of locally manufactured components were supplied as original equipment to the five assembly companies (AIA 1991: 45).

\textsuperscript{4} estimate of assistance to the industry’s value added after allowing for both assistance to output and the tax effect of assistance on inputs.

\textsuperscript{5} All three case studies used for research for this thesis are SCPs
All PMV assemblers and many SCPs are either subsidiaries of overseas parents, are wholly or partly owned by overseas car companies, or produce under licence to international component manufacturers\(^6\). These subsidiaries draw most of their capital, product design, and production methods, from their foreign parents. This has implications for the way they function, particularly with regard to export markets. To quote Uhlenbruch

> the vehicle builders in Australia are part of overseas-based multinationals, and the same is true of the majority of the larger parts makers... [which] set up operations in Australia to service the domestic market, and not to use Australia as a base for exports (Uhlenbruch 1986:15).

Thus the automotive industry in Australia shares the general characteristic of the Australian manufacturing industry of being established under extensive government assistance to protect it against external competition. It was estimated that by 1991 the assistance to the industry would be equivalent to a direct subsidy of $4000 for each vehicle produced (IC 1990a:1). This type and level of assistance resulted in a largely foreign-owned industry located here to access the Australian market. However, by the 1970s and 1980s, greater competition within the international automotive market was causing successive governments to seek alternate plans to make the Australian industry more internationally cost competitive. The success of these Plans and the need for future action can only be gauged by a detailed exploration of the pressures on industry. This is the task of the next section.

**Australian Automotive Industry: The Product Market**

Pressure for change arises partly from market problems. The local industry market performance can be identified by a study of sales data. This reveals the market for Australian-made PMVs was both maturing and volatile, reaching a peak of vehicle sales of just over 500,000 units in 1985 (IC 1990a:26). Table 3.1 presents sales data for domestic sales from 1985 to 1991. This shows that after 1985 domestic vehicle sales fluctuated. Sales reached 360,000 units in 1987 and 470,000 units in 1990, then declined to 393,000 units in 1991 (AIA 1988, 1991). Over the same period the contribution from locally produced PMVs decreased from almost 80% of these sales in 1985 to around 70% of sales in 1991.

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\(^6\) Multi national companies bought two of the case study companies in this thesis from their Australian owners.
Table 3.1
Domestic Sales of new PMVs
1985-1991

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic Sales Volume - Units</th>
<th>Local PMV Sales % volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>509,589</td>
<td>77</td>
</tr>
<tr>
<td>1986</td>
<td>398,739</td>
<td>81</td>
</tr>
<tr>
<td>1987</td>
<td>363,964</td>
<td>84</td>
</tr>
<tr>
<td>1988</td>
<td>410,473</td>
<td>80</td>
</tr>
<tr>
<td>1989</td>
<td>448,514</td>
<td>76</td>
</tr>
<tr>
<td>1990</td>
<td>467,493</td>
<td>75</td>
</tr>
<tr>
<td>1991</td>
<td>393,161</td>
<td>69</td>
</tr>
</tbody>
</table>

Source: AIA 1988:77; AIA 1991:83

The increased demand for imported vehicles was due to a number of factors (AIA 1988, 1991). First, customer demand changed from medium-upper and luxury sized vehicles to small and micro sized vehicles. These smaller vehicles are mainly imported and are not built in Australia. Second, was price competition from imported vehicles. Third, the private market for PMVs was approaching maturity.

Turning first to customer demand. Change in demand from medium-luxury to small-micro sized cars vehicles was influenced by removal in 1988 of import quotas, coupled with lower costs associated with overseas competitors higher economies of scale. Between 1985 and 1991 the market share of PMVs (mainly Australian made) held by the medium-upper-luxury vehicle decreased from a peak of 73% in 1988 to 63% in 1991. Imported small vehicles, as shown in Table 3.2, filled the gap.

Table 3.2
Local Market Share - Vehicles by Size
1985-1991

<table>
<thead>
<tr>
<th>Year</th>
<th>Imported - % Micro-light</th>
<th>Local - % Micro-light</th>
<th>Imported - % medium-luxury</th>
<th>Local - % Medium-luxury</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>9.7</td>
<td>20.5</td>
<td>13.5</td>
<td>56.3</td>
</tr>
<tr>
<td>1986</td>
<td>8.8</td>
<td>21.9</td>
<td>10.5</td>
<td>58.8</td>
</tr>
<tr>
<td>1987</td>
<td>9.2</td>
<td>19.8</td>
<td>9.2</td>
<td>64.6</td>
</tr>
<tr>
<td>1988</td>
<td>9.2</td>
<td>20.3</td>
<td>13.1</td>
<td>60.2</td>
</tr>
<tr>
<td>1989</td>
<td>8.2</td>
<td>19.6</td>
<td>16.2</td>
<td>56</td>
</tr>
<tr>
<td>1990</td>
<td>11.3</td>
<td>22.2</td>
<td>13.9</td>
<td>52.6</td>
</tr>
<tr>
<td>1991</td>
<td>16.9</td>
<td>19.7</td>
<td>14.2</td>
<td>49.2</td>
</tr>
</tbody>
</table>


This reveals between 1985 and 1991 market share for imported micro-light vehicles increased from around 10% to almost 17%, while market share for imported medium-
luxury vehicles remained static at around 13%. Simultaneously local market share of micro-light vehicles remained static while the market share of locally produced medium-luxury vehicles decreased. Around this time Australian producers withdrew from local production of small cars. Ford ceased local manufacture of the Laser and Nissan the Pulsar in the early 1990s leaving Toyota the sole Australian assembly of small PMVs. This resulted in an overall increase in market share for imported vehicles from just over 20% in 1985 to over 30% in 1991.

Second, locally produced PMVs came under increased price competition from imports, as shown in Table 3.3 (AIA 1991).

<table>
<thead>
<tr>
<th>Year</th>
<th>Local</th>
<th>Imported</th>
<th>CPI</th>
<th>AWEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>14.3</td>
<td>16.3</td>
<td>8.0</td>
<td>6.2</td>
</tr>
<tr>
<td>1986</td>
<td>19.1</td>
<td>24.8</td>
<td>9.5</td>
<td>7.4</td>
</tr>
<tr>
<td>1987</td>
<td>10.9</td>
<td>13.2</td>
<td>7.0</td>
<td>5.4</td>
</tr>
<tr>
<td>1988</td>
<td>5.7</td>
<td>6.9</td>
<td>6.7</td>
<td>8.1</td>
</tr>
<tr>
<td>1989</td>
<td>5.9</td>
<td>2.8</td>
<td>8.2</td>
<td>6.3</td>
</tr>
<tr>
<td>1990</td>
<td>5.2</td>
<td>2.5</td>
<td>6.7</td>
<td>6.5</td>
</tr>
<tr>
<td>1991</td>
<td>4.4</td>
<td>2.5</td>
<td>1.4</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: AIA 1991:92

Annual price increase of locally produced PMVs reduced gradually after 1986 from a high of almost 20% in 1986 to a low of just over 4% in 1991. By 1988 the annual price increase of locally produced PMVs was lower than the annual CPI increase. Despite this price pressure from cheaper imported vehicles increased after 1988 as import quotas were removed. The price increase for imported vehicles decreased from a high of almost 25% in 1986 to a low of 2.5% in 1990. Although in 1988 the annual price increase of 7% for imported vehicles was about 1% higher than the local price increase, in 1989 the annual price increase for imported vehicles was just under 3% compared to just under 6% for locally built vehicles. The data also suggests price competition from imports held the price movements for local manufacturers below comparable movements in consumer prices and earnings. This suggests a difficult market climate for PMV producers in Australia.
Third, the market for PMVs is affected by market maturity. It appears the private market for PMVs in Australia was reaching saturation by 1991. This was accompanied by change in vehicle buyer type, which may have made the market more difficult. Table 3.4 shows sales of PMVs to private buyers decreased from a high of 300,000 in 1985 to 200,000 in 1991 (AIA 1988, 1991).

**Table 3.4**

New PMV Sales by Type of Purchaser
1985-1991 SA

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>Business</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>303,087</td>
<td>176,367</td>
<td>30,135</td>
</tr>
<tr>
<td>1986</td>
<td>216,543</td>
<td>148,351</td>
<td>33,845</td>
</tr>
<tr>
<td>1987</td>
<td>168,849</td>
<td>157,537</td>
<td>37,578</td>
</tr>
<tr>
<td>1988</td>
<td>196,925</td>
<td>178,615</td>
<td>34,933</td>
</tr>
<tr>
<td>1989</td>
<td>212,990</td>
<td>186,046</td>
<td>49,478</td>
</tr>
<tr>
<td>1990</td>
<td>253,424</td>
<td>170,770</td>
<td>43,299</td>
</tr>
<tr>
<td>1991</td>
<td>205,308</td>
<td>146,316</td>
<td>41,537</td>
</tr>
</tbody>
</table>


At the same time demand by business declined marginally from a high of 170,000 in 1985 to 146,000 in 1991. The decline in private and business demand was partly offset by a gradual increase in government purchases from 30,000 in 1985 to 41,000 in 1991. This represented a decrease in importance of private purchasers from almost 60% of the market in 1985 to 52% in 1991. Purchases by the government increased to the point at which their share of the market almost doubled from 6% in 1985 to 11% in 1991. As a sidelight corporate and government sales are likely to be less profitable because of buyer power forcing margins down. This created further economic pressure on the industry.

The declining market for locally produced vehicles was offset to a small extent after 1990 by an increase in exports. Given the subordinate role foreign parents assign to Australian subsidiaries, the amount of product exported is not great. Exports were relatively insignificant throughout the 1980s, although they showed some improvement after 1990 as shown in Table 3.5.
Less than 2% of annual automotive production was exported until 1990 when an increase to around 7% of production was recorded, and stayed steady at around 9% in 1991 (AIA 1987, 1989, 1991; DIST 1998). This represented an increase of between 1985 and 1991 in the value of exports of over 200%, with average annual growth fluctuating between around 10% in 1986 and over 17% in 1990 and 1991. For individual producers the value of exports ranged from 1% to 20% of sales. The experience of SCPs was similar. In 1991 exports averaged around only 9% of total sales. This was concentrated in only a few firms. Nine firms did not export, 20 firms exported less than 10% of sales, and only three firms exported more than 20% of their total sales (IC 1990).

These problems for locally produced PMVs led to simultaneous pressures to both reduce prices and increase product quality. Taking prices first, further price reductions could only be achieved by reducing costs. Costs of PMVs include the cost of components and cost of the factors of production. In 1990 component inputs were estimated to contribute around 78% of total costs of locally produced PMVs (IC 1990a:30). This led PMV assemblers to seek price reductions of around 5% per annum from component suppliers as a condition for longer-term supply contracts. The pressure was thus passed from the PMV assembler to the SCP supplier. Turning to labour costs. In its 1990 Report the Industry Commission claimed labour costs accounted for around 20-25% of total passenger vehicle manufacturing costs. Although the Australian automotive industry has a wage advantage over Japan, West Germany, and the USA, this is reduced once on-costs are added. The Report claimed that the average wage of a production worker in Australia was $20,000 compared with

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of Exports SM</th>
<th>Production Exported (%)</th>
<th>Average Annual Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>442.3</td>
<td>0.6</td>
<td>15.4</td>
</tr>
<tr>
<td>1986</td>
<td>463.2</td>
<td>1.4</td>
<td>9.9</td>
</tr>
<tr>
<td>1987</td>
<td>754.9</td>
<td>3.2</td>
<td>25.3</td>
</tr>
<tr>
<td>1988</td>
<td>613.4</td>
<td>0.57</td>
<td>12.5</td>
</tr>
<tr>
<td>1989</td>
<td>649.1</td>
<td>1.69</td>
<td>11.1</td>
</tr>
<tr>
<td>1990</td>
<td>1,013.8</td>
<td>7.1</td>
<td>17.6</td>
</tr>
<tr>
<td>1991</td>
<td>1,157.3</td>
<td>9.5</td>
<td>17.1</td>
</tr>
</tbody>
</table>

$50,000 in Japan. However the direct cost advantage is partly offset by other factors such as penalty rates, rostered days off, payroll tax, holiday loading and workers’ compensation which are generally higher than overseas countries. It was further claimed that labour costs per unit of output are relatively high in Australia because of lower levels of labour productivity and fewer days worked (IC 1990a:209-210). However change to these wage conditions required a restructuring of awards governing the employment relationship.

In the late 1980s PMV buyers placed further quality demands on component suppliers. Australian vehicle models had not developed a good reputation for quality compared with Japanese makers. Sample survey data taken between 1984 and 1991 showed new owners detecting more faults in locally produced Australian vehicles in the first few months of ownership than imported vehicles. This led the Automotive Industry Association to claim “only one model, locally produced during 1988, showed a statistically significant trend to improved quality over the four year period from mid 1984-1988” (AIA 1988:62). By 1991 some quality improvements had been achieved which led the AIA to claim “in the past four years the quality of Australian made cars has improved 27% and the quality gap between locally manufactured cars and comparable imports has narrowed considerably” (AIA 1991:59). This Report referred to a survey that claimed all eight vehicle models had lower faults in 1991 than in 1985 (ARMS data, reprinted in AIA 1991:59). The rating of SCPs by PMV producers had also improved. Ratings of ‘good’ had increased from 30% of SCPs in 1990 to 51% in 1991, whilst ratings of ‘poor’ had decreased from 20% to 15% (AIA 1991:64). This led Australian PMV assemblers to be favourably rated against overseas manufacturers in terms of quality improvements. The AIA Report quoted an international survey as claiming the quality of Australian sourced cars had improved significantly since 1988. Between 26% and 33% improvement had been recorded, compared to 32% improvement in European-sourced cars sold into the USA market. The AIA used these findings to conclude “compared with these car manufacturing countries, Australia is making progress in quality improvements” (AIA 1991:60). PMV assemblers however accused SCP suppliers of showing little interest in quality improvements. The AIA reported PMV assemblers as stating “an insufficient number of specialist component producers are involved in the type of quality program which
would enhance quality performance” (AIA 1988:65). Assemblers complained of only 36% of SCPs consistently satisfying quality requirements, while 12% were identified as poor performers (AIA 1988:64). Thus in order for the industry to continually improve further reforms to quality processes were required.

In summary by 1991 both the PMV and SCP sectors of the Australian automotive industry faced a declining market, increased import competition, and demands for both a decrease in price and an increase in quality. Before assessing the response of industry to these challenges, it is necessary to explore the way performance is measured in the industry.

**Performance Measurement**

The main indicators used to measure performance in the automotive industry are gross production, production per automotive plant, and production per model. Using any of these measures it is clear the local market focus of the Australian PMV industry resulted in low volume production and minimal economies of scale in an industry heavily reliant upon high economies of scale (IC 1990a:18).

First, to explore gross production. Between 1985 and 1989 gross production of PMVs in Australia averaged 380,000 units compared to eight million produced in Japan and seven million in the USA. Production levels did not fluctuate significantly around this level until 1991 when they dropped below 300,000 as shown in Table 3.6.

<table>
<thead>
<tr>
<th>Year</th>
<th>Local Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>387,364</td>
</tr>
<tr>
<td>1986</td>
<td>320,763</td>
</tr>
<tr>
<td>1987</td>
<td>309,773</td>
</tr>
<tr>
<td>1988</td>
<td>320,755</td>
</tr>
<tr>
<td>1989</td>
<td>364,274</td>
</tr>
<tr>
<td>1990</td>
<td>368,165</td>
</tr>
<tr>
<td>1991</td>
<td>288,380</td>
</tr>
</tbody>
</table>

*Source: AIA 1988:79;1991:87*
These production levels are low by world standards. Even the relatively newly established Korean automotive industry averaging production of over 650,000 vehicles in the same period. The only country close to the Australian production levels was the newly industrialised economy of Mexico, which averaged 326,000 vehicles in 1989 (IC 1990a:19).

Second, to consider production per automotive plant. An international study of the motor vehicle industry in 1989 claimed assembly volumes of 200,000 vehicles per automotive plant per annum are necessary for efficient production in the automotive industry. In Australian no assembly plants operated at more than 100,000 vehicles per annum. Indeed daily production rates in 1990 averaged only half those of the newly industrialised economies of Korea, Mexico and Brazil (Krafcik and MacDuffie, reprinted in IC 1990a:31).

Third, production levels per model is used as a measure of performance. Once again the international study into the motor vehicle industry found that in Australian no model achieved more than 100,000 units, with most models producing annual volumes of less than 40,000 units. This compared with 300,000 units produced in the USA in 1988 by General Motors for the Chevrolet Corsica/Benetta and 700,000 for the Chevrolet Cavalier, and 350,000 produced in Japan by Toyota for the Corolla and for the Camry (IC 1990:18). Thus the Australian automotive industry compared unfavourably on an international scale with volumes of production in most other vehicle producing countries.

Productivity also showed a similarly poor performance. Productivity within the industry is generally measured in three ways - plant capacity utilisation, levels of automation, and labour productivity. First, to explore capacity utilisation. In an international study of the automotive industry in 1989 it was found productivity of Australian plant lagged behind other countries in each of the main functional areas of welding, painting, and final assembly (Krafcik and MacDuffie, reprinted in IC 1990a:212). Higher levels of capacity utilisation were demonstrated within SCPs. Despite this the international study concluded Australian PMV plants operated substantially below capacity.
Australian vehicle assemblers were, on average, operating at only slightly more that 50% of their capacity. This compares with plant utilisation levels in excess of 80% in virtually all other regions surveyed (Krafcik and MacDuffie 1989, reprinted in IC 1990a:203).

This low capacity utilisation results from under-utilisation of the machinery used in production and peculiarities of labour utilisation in Australia, including single shifts and fewer days worked than comparable overseas plants (IC 1990a:204). For capacity utilisation to increase, change to both technology and labour utilisation were needed.

Second, automation in Australian assembly plants is low and there was little sign of plans to invest in new technology. In the 1989 international study mentioned above, Australian assembly plants were found to have automated a weighted average of less than 11 production steps. This compared unfavourably against almost 30 steps automated in Japanese plants in Japan. Even companies within the newly industrialised economies had a weighted average of almost 12 steps (Krafcik & MacDuffie 1989, reprinted in IC 1990a:205).

There was also little sign of plans to automate the production process. The 1991 AIA Annual Report found total expenditure on investment by PMV producers between 1988 and 1991 had decreased by around 12%, from around $1900 to $1600, with little sign of a reversal of this trend (AIA 1991). These figures are more informative when they are disaggregated into investment in product, capacity, efficiency and capital maintenance, and administration as shown in Figure 3.1 (AIA 1991).
The major form of expenditure on investment is in new product as models are updated. This fluctuates depending on the stage of new model production, but it did not drop below 50% of overall expenditure between 1984 and 1991. Investment expenditure aimed at improving efficiency is often associated with automation. Although this represented the second largest type of investment expenditure in the Australian industry, it contributed less than 20% of total expenditure over the period. In 1991 this increased to 20%, however this was a one-off as the Toyota plant was established in Victoria. The remaining 30% of investment expenditure is used simply to maintain existing production facilities (Capital Maintenance and Administration) and to extend manufacturing capacity to increase output (Capacity). Similar results were recorded for the SCP sector (AIA 1991). Thus there was no evidence the industry aimed to significantly automate its production processes.

Third, productivity of labour in the automotive industry is calculated in three ways. For the industry as a whole simple one factor input-output data is used. For the PMV sector the number of labour hours required per employee is used. For the SCP sector the value of sales by firms deflated by the CPI is used. First, to explore the industry as a whole. Simple one factor input-output approach is determined by dividing the average number of vehicles produced by the number of employees. The AIA calculated an output for 1989 of almost six vehicles per employee (AIA 1991:16). This was only half the output recorded in the USA (11 vehicles per employee) and only one-third the Japanese output (17 vehicles per employee). In 1989 the international study of the automotive industry calculated Australian assembly plants required over 44 hours to produce a ‘standard’ vehicle. This compared unfavourably
not only with Japan (which required less than 17 hours) but also with plants in the newly industrialised countries (Krafcik and MacDuffie 1989, reprinted in IC 1990a:217).

In addition to direct measures of performance there are measurable factors thought to affect productivity. Four of these are commonly examined - level of labour turnover, level of workforce skill, level of industrial disputation and finally, management practices.

Labour turnover in the Australian automotive industry averaged a high of 35% in 1987, with levels in individual companies of between 11% and 61% (AMC 1990). This compared unfavourably with the figures of 4% turnover in US plants in North America and 5% in Japanese company plants in Japan (Krafcik and MacDuffie 1989, reprinted in IC 1990a:208). In 1989 such levels of turnover were estimated to add around $850 to the cost of each car produced in Australia (AMC 1990:63-69; AIA 1990). In 1991 labour turnover reduced to around 5.5% for the PMV sector and 8.5% for the SCP. The decline was thought to be a result of the recession more than of any deliberate policy and thus cannot be considered as a measure of industry improvement (AIA 1991).

A low skill base is said to limit labour productivity in Australia where almost 60% of the automotive industry workforce are semi-skilled process workers. An Australian Industry Commission Report in 1990 found the level of training of both newly hired and experienced employees in the Australian automotive industry to be below levels achieved by many overseas competitors (IC 1990a:38-39). By 1991 only 3% of PMV employees and only 2% of SCP employees were apprenticed (AIA 1988, 1991). A survey of seven PMV assembly plants in 1991 in Victoria estimated around 60% of production and assembly line workers were from non-English-speaking backgrounds (Levine, McLennan & Pearce 1993). The low levels of literacy and numeracy amongst many of the overseas born workforce exacerbated problems of poor skills (Bertone & Limbrick 1994; Jones 1995).

Turning to industrial disputation. Industrial relations in the Australian automotive industry has been described as adversarial, characterised by;
numerous industrial disputes...many over demarcation and manning issues......local issues outweighed national stoppages as a major cause of lost time....workers sought to protect their positions by enforcing strict demarcation lines.....Delegates also claimed that there was a ‘them and us’ atmosphere in the plant caused by strong status differences between management and the workforce (Hammarstrom & Lansbury 1991:18).

Table 3.7 summarises number of working days lost between 1987 and 1991. Between 1987 and 1989 the number of working days lost per thousand employees in the automotive industry increased steadily to a peak of 555 days in 1989 (AIA 1991). This figure resulted from 20 disputes and involved almost 22,000 workers. This level of disputation was typical of the manufacturing sector. However by 1991 working days lost per thousand employees had decreased dramatically to only 88 days. This comprised only 10 disputes involving only 5,000 workers.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Manufacturing</th>
<th>Automotive Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>374</td>
<td>389</td>
</tr>
<tr>
<td>1988</td>
<td>405</td>
<td>289</td>
</tr>
<tr>
<td>1989</td>
<td>357</td>
<td>555</td>
</tr>
<tr>
<td>1990</td>
<td>642</td>
<td>114</td>
</tr>
<tr>
<td>1991</td>
<td>882</td>
<td>88</td>
</tr>
</tbody>
</table>

Source: AIA 1991

Finally there is managerial practice. The production process adopted in the Australian automotive industry has been traditionally based upon the model developed by Ford in the USA in the early 1900s (Taylor 1964; Katz 1985; Marsden et al. 1985; Tolliday & Zeitlin 1992). This is represented in Table 3.8. Mass production methods have resulted in a centralised, hierarchical, many-layered, management decision-making process and separated departments in which employees are seen as either skilled thinkers or unskilled doers. The result is standardised products and processes ruled by quantity considerations with output quality relegated to a post-production activity. There is little flexibility within the workforce, with workers assigned to rigid and closely defined tasks restricted by the technology employed. The workforce response has been to join unions to engage in collective bargaining to protect jobs. This has allegedly contributed to adversarial industrial relations (Mathews 1989; Hammarstrom & Lansbury 1991).
Table 3.8
Australian Automotive Industry
Mass Production Work Organisation

| Management          | Centralised
|                    | Hierarchical
| Process            | Standardised by industrial engineers
|                    | Technologically determined
|                    | Short cycle time per job
|                    | No schedule for preventative maintenance
| Product design     | Standardised products
|                    | Cosmetic variations
|                    | No design for manufacturability
| Market Segment     | mass consumption-local Australian market
| Departments        | Segmented, functional
| Product Quality    | quality inspection post production
|                    | no continuous quality improvement
|                    | no employee involvement
| Job design          | narrow, individual, tasks based
|                    | technologically determined
|                    | limited job rotation and flexibility
| Skills and Depth of Knowledge | semi-skilled workforce
|                    | on-the-job training
|                    | skilled technical and professional employees
| Human Resource Management | reactive
| Industrial Relations | adversarial – management anti-union
|                    | unitary, based on philosophy of harmony of interest between management and worker

Source: Batt and Appelbaum 1994

The 1989 international automotive study characterised Australian management practices as on average the most controlled (robust/buffered) of all plants surveyed. This was compared to the Japanese management style, which was characterised as being highly dependent on labour force skills and motivation (fragile/lean). Australian plants were also described as having plant managers who were seen as least committed to human resource management policies (Krafcik & MacDuffie 1989, reprinted in IC 1990a:206).

In summary, by the early 1990s productivity levels within the Australian automotive industry were lower than overseas competitors. There was no sign companies were taking any effective measures to improve this by investing in technology, or changing methods, or improving skills to increase technical ability or improve communications, leadership, or problem solving. The performance results of this scenario are discussed below.
Performance Outcomes: The 1991 Crisis

Profitability of the Australian PMV assembly sector is shown in Table 3.9.

<table>
<thead>
<tr>
<th>Year</th>
<th>PMV</th>
<th>SCP</th>
<th>Importers</th>
<th>Automotive Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>34,302</td>
<td>23,729</td>
<td>2,750</td>
<td>60,781</td>
</tr>
<tr>
<td>1986</td>
<td>31,675</td>
<td>26,417</td>
<td>2,263</td>
<td>60,355</td>
</tr>
<tr>
<td>1987</td>
<td>30,919</td>
<td>25,331</td>
<td>1,931</td>
<td>58,181</td>
</tr>
<tr>
<td>1988</td>
<td>30,476</td>
<td>25,697</td>
<td>1,888</td>
<td>58,061</td>
</tr>
<tr>
<td>1989</td>
<td>33,558</td>
<td>25,729</td>
<td>2,190</td>
<td>61,477</td>
</tr>
<tr>
<td>1990</td>
<td>35,128</td>
<td>25,817</td>
<td>2,210</td>
<td>63,155</td>
</tr>
<tr>
<td>1991</td>
<td>29,008</td>
<td>20,916</td>
<td>1,827</td>
<td>51,751</td>
</tr>
<tr>
<td>1992</td>
<td>24,036</td>
<td>17,707</td>
<td>1,777</td>
<td>48,431</td>
</tr>
<tr>
<td>1993</td>
<td>23,067</td>
<td>17,681</td>
<td>2,247</td>
<td>47,134</td>
</tr>
</tbody>
</table>


Profits were recorded in only two years between 1985 ($56 million) and 1991 ($127 million), (AIA 1991). In 1991 the sector suffered a massive loss of $500 million. This produced a combined loss of $828 million for the period. Although in the same period the SCP sector was profitable ($105 million in 1988 increased to $175 million in 1990), the level of profitability decreased after 1990 to $69 million in 1991. This led to a decrease in employment in 1991 as shown in Table 3.10.

<table>
<thead>
<tr>
<th>Year</th>
<th>PMV</th>
<th>SCP</th>
<th>Importers</th>
<th>Automotive Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>55.9</td>
<td>Unknown</td>
<td>105</td>
<td>163</td>
</tr>
<tr>
<td>1986</td>
<td>-192.3</td>
<td>Unknown</td>
<td>126.7</td>
<td>175</td>
</tr>
<tr>
<td>1987</td>
<td>-80.5</td>
<td>Unknown</td>
<td>-223.8</td>
<td>69</td>
</tr>
</tbody>
</table>

Source: AIA 1991

Profits were recorded in only two years between 1985 ($56 million) and 1991 ($127 million), (AIA 1991). In 1991 the sector suffered a massive loss of $500 million. This produced a combined loss of $828 million for the period. Although in the same period the SCP sector was profitable ($105 million in 1988 increased to $175 million in 1990), the level of profitability decreased after 1990 to $69 million in 1991. This led to a decrease in employment in 1991 as shown in Table 3.10.

Total employment in the automotive industry fluctuated around 60,000 for much of the 1980s. In 1991 employment levels decreased to a low of 51,751 employees and

7 This does not include sale of imported PMV’s, shared vehicles and bought-in PMV components as exports
continued to decline in the two years following (AIA 1988, 1991, 1993). This decrease initially had a greater effect on the PMV sector, which employed over 50% of automotive industry employees, but was expected to affect to also affect the SCP sector.

By 1990 the Australian automotive industry was under stress. The focus on the local market had resulted in sales being too low to yield economies of scale. Sales had peaked in 1985, fluctuating thereafter within a tight band, followed by a slump in 1991 as the recession began. There was little hope of an increase locally as the private customer market approached maturity and imports of cheaper vehicles increased. There was also little indication exports would grow in the short term. It was clear the industry required substantial reform. Negative profitability and declining employment demonstrated these problems. Put simply, management faced a competitive crisis caused by pressures from imports, static prices and low productivity without significant investment or the prospects of technology-based solutions. In this context the pressure for workplace reform became very strong. The next section outlines changes introduced into the automotive industry through these reform processes.

**Workplace Reform in the Australian Automotive Industry**

By the late 1980s the Australian automotive industry was under growing competitive pressure. The industry’s traditional response to such pressures was to seek more government protection. By the 1980s, however, the Federal Government was no longer prepared to provide such protection. The industry’s second response was to cut costs. However demands for improved quality, coupled with successful union resistance to wage cuts, necessitated adoption of a different approach. Over the space of several years, 1986-1991, the industry adopted three principal approaches to workplace reform – quality management, institutional workplace reform, and best practice.

First, as noted in Chapter Two, Australian experience with quality management began at industry level in the mid-1980s through groups such as Enterprise Australia and the
Australian Quality Council. Implementation of quality initiatives at enterprise level followed slowly. Japanese subsidiaries in Australia such as Mitsubishi were amongst the first to experiment (Kriegler & Wooden 1985; Wilkinson 1989), while Repco Bearing in Tasmania in 1985 was one of the first automotive companies to introduce quality circles (Wells 1982, 1985; McGraw & Dunford 1987a; McGraw & Dunford 1987b; Wells 1985).

By the late 1990 most assembly companies had developed internal quality systems which they extended to their suppliers through ‘preferred suppliers’ accreditation processes (Berggren 1992). Toyota had extended their Toyota Production System (TPS) into a Supplier Assessment System (TSA) (Menere 1993; Toyota 1993; Greenwood & Langfield-Smith 1997; Langfield-Smith & Greenwood 1998), (later adopted as an industry standard by the Federation of Automotive Parts Manufacturers [FAPM] in 1994). Ford (Australia) had extended the Ford Worldwide Quality System Standard, Q101 to a Preferred Quality Award, QI, (Ford 1990). Accreditation meant the component supplier had achieved a level of quality excellence and had in place processes and systems for continuous improvement in meeting and exceeding the customer's needs and expectations (Ford 1990). This enabled the assembler to “plan its sourcing of goods and services in detail ...[and]... to reduce uncertainty” (Shadur et al. 1994:624, 628). These Supplier Assessment Systems are important for several reasons. First, they illustrate the kind of mechanisms by which quality methods spread from PMVs to SCPs. Second, they each require greater workforce participation. The TPS requires functional work teams, shop floor reporting, suggestion schemes, and quality circles. The Ford Supplier Quality Standards (SQS) requires companies to demonstrate improved information sharing, the establishment of cross-functional project teams, and employees trained in problem solving (Ford 1990). For example Table 3.11 sets out the Ford SQS requirements.
Table 3.11

<table>
<thead>
<tr>
<th>PROCESS and PRODUCT QUALITY</th>
<th>PLANNING</th>
<th>DOCUMENTING</th>
<th>CRITICAL CHARACTER’S</th>
</tr>
</thead>
<tbody>
<tr>
<td>evaluate process capability</td>
<td>flow charts</td>
<td>written quality procedures</td>
<td>key quality disciplines for control items.</td>
</tr>
<tr>
<td>select appropriate methods to control all product characteristics</td>
<td>feasibility assessments</td>
<td>quality systems and performance records</td>
<td>document control items</td>
</tr>
<tr>
<td>process control through gauges, measuring and test equipment</td>
<td>failure mode and effect activities (FMEA)</td>
<td>drawing and design change control methods</td>
<td></td>
</tr>
<tr>
<td>conduct and document engineering specification tests and react appropriately</td>
<td>control plans</td>
<td>part/process modification control</td>
<td></td>
</tr>
<tr>
<td>identify product and test status</td>
<td>gauging, measuring and testing equipment</td>
<td>process change control methods</td>
<td></td>
</tr>
<tr>
<td>provide set-up instructions and new set-up verification</td>
<td>preliminary process capability studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>maintain reference samples</td>
<td>written process monitoring and control instructions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>establish procedures for rework</td>
<td>packaging to protect product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>analyse and document returned parts</td>
<td>initial sample evaluation, documentation and certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide eight-discipline reports (8D)</td>
<td>data for prototype fabrication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plan and implement preventative maintenance</td>
<td>process to monitor and control sub-supplier quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>control heat-treating operations per customer standards</td>
<td>plans for maintaining ongoing quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide lot traceability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use of SPC to monitor processes and improve capability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plans for continuous improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Ford Motor Company 1990

However the extent to which these system requirements led to increased workforce participation in decision making within workplaces is unclear. In a study of workplaces in 1991 Hammarstrom and Lansbury found a degree of employee discontent with the limited agenda in which they were asked to participate. They quoted workers as complaining:
Indeed QCs appear to have been the principal means by which employee contribution was sought. There were other initiatives such as the Ford Employee Involvement Program (1983), and the GMH and Nissan Quality of Work Life programs (early 1980s), that also sought employee views (Lever-Tracy 1990; Lansbury & Davis 1991; Lansbury & Macdonald 1992; Simmons 1994). However, in both cases employees’ suggestions for change were passed to management. Thus by 1990 the need for greater workforce participation to improve quality had been accepted in principle although the practice was less easily identifiable.

Second, institutional workplace reform in the automotive industry in Australia paralleled the general experience recounted in Chapter Two (Lansbury & Hammarstrom 1991). The first changes were at industry level where a number of broad initiatives set the environment for reform. Bamber and Lansbury (1997) explain this industry focus as due to the small size of the Australian market which influenced companies to adopt industry patterns, as well as the traditional influence of national industrial regulation (Bamber & Lansbury 1997:14). Not until the late 1980s was there any push to decentralise wage bargaining for the SCP sector. Until then this industry tended to follow pace-setting negotiations in the Metal Industry Award (Carr 1992).

As explained in Chapter Two, by 1989 both the Vehicle Industry Award (covering employees in assembly automotive assembly) and the Metal Industry Award (covering employees in component production) had been restructured with endorsement from the Commission. Implementation of the new Awards to suit enterprise requirements was assisted by agreements between employers and unions. In 1991 the Federated Vehicle Industry Unions (FVIU) undertook a Project to assess “the state of the industry from a union perspective and to recommend changes to union policy which would assist in improving the industry’s performance” (FVIU & NKCIIR 1991:3). By 1992 all parties had agreed to a curriculum for upskilling of workers through the proposed Production Engineering and Vehicle Industry Certificates.
Some enterprise specific variation was introduced as part of the implementation of the new Awards (Rimmer 1992), although more enterprise variation was to occur later under enterprise bargaining. The PMV producers and their unions had regulated employment conditions by company awards for many years. However, not until 1991 did they experiment greatly with the freedoms created by government and the Commissions’ enterprise bargaining policies. In the PMV sector, the Ford Australia Enterprise Agreement of 1991 changed the character of employee involvement. The Agreement developed the voluntary Employee Involvement Program into permanent SAWGs, termed Natural Work Groups. They were described as the most basic unit of work (Simmons & Lansbury 1996), and were designed to reduce demarcations between workers. The aim was to produce a “single status workforce with every employee having unrestricted access to the issue of tools and equipment...limited only by recognised and accredited skills, knowledge and experience” (DIR 1993a:45; Simmons & Lansbury 1996). Similarly, the Toyota Enterprise Agreement committed the workforce to continuous improvement through QCs. It also committed parties to “standardised work, production improvements, elimination of waste, a suggestion scheme, team meetings, multiskilling and employee rotation” (DIR 1993a:10). Bendix-Mintex in the SCP sector developed an Enterprise Agreement that committed the workforce to another form of SAWGs, termed Cellular Work Teams, through “a technical redesign of production facilities to develop cellular manufacturing techniques” (DIR 1993b:16). All these SAWGs were designed in accordance with lean production principles. Other enterprise agreements committed workers to less ambitious changes such as “the best use of skills, with tasks shared between work groups on the basis of skills” (DIR 1993b:54).

Workforce participation under these reforms varied from direct participation in SAWGs to representative participation in JCCs. Ford Australia introduced a multi-tiered consultative process that included both internal and external (full-time union official) participation (Curtain, Gough & Rimmer 1992; Lansbury 1994; Simmons & Lansbury 1996; Bamber & Lansbury 1997). In the SCP there were examples of commitment of the parties to “regular plant and section meetings” (DIR 1993a:11). However there is little detail on the success of these consultative processes.
Third, best practice principles took hold in the automotive industry as early as 1991. To begin, five companies from the automotive industry were formally included in the first round of the ABPDP. The companies were drawn from both the PMV sector (Toyota Motor Corporation), and from the SCP sector (Air International, Bendix-Mintex, Henderson’s Automotive, and South Pacific Tyres). However, best practice extended much more widely to all PMV firms and most SCP suppliers.

The experience of these ABPDP companies was documented by Rimmer et al. (1996). The findings are summarised in Table 3.12.

### Table 3.12

Automotive firms involved in the ABPDP

<table>
<thead>
<tr>
<th>Changes Introduced</th>
<th>Air Int. Pty Ltd (Vic.)</th>
<th>Bendix Mintex</th>
<th>Henderson’s Automotive</th>
<th>Toyota Motor Corp.</th>
<th>South Pacific Tyres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>formal, integrated</td>
<td>formal, integrated</td>
<td>formal, integrated</td>
<td>formal, integrated</td>
<td>formal, integrated</td>
</tr>
<tr>
<td>Technology</td>
<td>significant investment</td>
<td>Significant investment</td>
<td>significant investment</td>
<td>significant investment</td>
<td>significant investment</td>
</tr>
<tr>
<td>Customer-Supplier</td>
<td>external – driven by competition</td>
<td>external – driven by competition</td>
<td>external - driven by competition</td>
<td>external - driven by competition</td>
<td>external - driven by competition</td>
</tr>
<tr>
<td>Process Improvement</td>
<td>guided by concepts and people</td>
<td>framework, concept driven</td>
<td>guided by concepts and people</td>
<td>guided by concepts and people</td>
<td>framework, concept driven</td>
</tr>
<tr>
<td>Change Leadership</td>
<td>established</td>
<td>established</td>
<td>established</td>
<td>established</td>
<td>established</td>
</tr>
<tr>
<td>Measurement and Control</td>
<td>macro data supplemented by measures for specific purposes but no benchmarking</td>
<td>macro-accounting and financial but no benchmarking</td>
<td>integrated and comprehensive but no benchmarking</td>
<td>integrated and comprehensive but no benchmarking</td>
<td>integrated and comprehensive but no benchmarking</td>
</tr>
</tbody>
</table>

Each participating automotive company had progressed as far as developing a formal and evolutionary strategy driven by competitive considerations. Two companies, Air International and the Toyota Motor Company, developed this into an integrated strategy. All companies had included in their existing strategies significant investment in technology. All companies had adopted steady change leadership to achieve reform.

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8 Detailed case studies are provided in accompanying volumes [Toyota Motor Corporation, (Greenwood & Langfield-Smith, 1997)] [Air International (Macneil, 1997)], [Bendix Mintex (McWilliams,
However there were variations in the development of improved measurement and control systems and process improvement. Bendix-Mintex and Hendersons’ Automotive (Shacklock 1997) had limited conceptual improvements, while the three other companies had developed beyond concepts to people-related improvements. Measurement and control systems in Bendix-Mintex were still principally limited to macro accounting and financial data. In Air International macro data was supplemented by measures for specific purposes. The other three companies had developed integrated and comprehensive measurement systems. However, none of the companies had developed benchmarking beyond the preparation stage.

Workforce participation associated with best practice workplace reform also varied as shown in Table 3.13.

<table>
<thead>
<tr>
<th>Automotive firms involved in the ABPDP</th>
<th>Workforce Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teams</strong></td>
<td><strong>People Management</strong></td>
</tr>
<tr>
<td>Air International Pty Ltd (Vic.)</td>
<td>direct and indirect employees</td>
</tr>
<tr>
<td>Bendix Mintex</td>
<td>direct employees</td>
</tr>
<tr>
<td>Henderson’s Automotive</td>
<td>direct and indirect employees</td>
</tr>
<tr>
<td>Toyota Motor Corp.</td>
<td>direct employees</td>
</tr>
<tr>
<td>South Pacific Tyres</td>
<td>direct employees</td>
</tr>
</tbody>
</table>

Source: Rimmer et al. 1996

All companies had introduced SAWGs for production employees. In two companies, Air International and Bendix Mintex, employees in support departments also participated in SAWGs. In most companies this allowed direct employees substantial control over their daily work, but in none were employees involved in strategic decision making. Thus progress on employee empowerment was less advanced. In all companies people management was negotiated through unions, with three companies developing an integrated approach between industrial relations and broader employee welfare issues.

1997), [Henderson’s Automotive, Shacklock, 1997], and [South Pacific Tyres (Terziovski &
Thus there is evidence companies within the automotive industry in Australia had implemented changes associated with best practice reform. Furthermore, workforce participation was associated with these changes. However, managers in several companies claimed workforce resistance to change had to be overcome before change could be effective. For example, the Managing Director of Bendix Mintex stated “any attempt to introduce workplace reform without establishing the foundations of good employee relations and union co-operation will have a limited chance of success” (ATC 1992:7). Managers at Henderson’s Automotive stated “these people-changes were the foundation for the push for product quality improvement and they were regarded as a legitimate part of the quality programme” (Blewett 1994:99). Finally, management at South Pacific Tyres observed more effort was required into the people aspects of reform:

> technology alone cannot provide increases in productivity and competitiveness without the commitment and skill of the people that operate the machines,... the main challenge for SPT in the future is to integrate the new technology into the workplace culture so that best practice attitudes and values are changed and sustained throughout the organisation (ATC 1992:121-123).

Further, when the reform process did not have sufficient scope for employees it had to be changed. For example the Toyota project had to be adjusted to increase the amount of employee involvement and to change authoritative management to a more participative approach in order to overcome operator resistance (Greenwood and Langfield-Smith 1997:433-464).

Thus a study of the literature on the introduction of change associated with best practice reform within the automotive industry in Australia shows significant variety. Workforce participation was a part of this reform process, principally through SAWGs. However there was little experience of truly empowered employees in strategic company matters. Accordingly workforce participation associated with best practice reform requires further examination. This sets the task for the case study research for this thesis.

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Samson, 1997).
Postscript

This thesis is primarily concerned with the period 1988-1992. However a postscript of industry development since then is instructive. Table 3.14 provides a summary of the major changes since 1991.

Table 3.14

<table>
<thead>
<tr>
<th></th>
<th>Production</th>
<th>Value of Exports $M</th>
<th>Production Exported %</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>277,725</td>
<td>1248</td>
<td>9.0</td>
<td>48,431</td>
</tr>
<tr>
<td>1993</td>
<td>294,070</td>
<td>1474</td>
<td>8.0</td>
<td>47,134</td>
</tr>
<tr>
<td>1994</td>
<td>322,893</td>
<td>1537</td>
<td>7.2</td>
<td>44,539</td>
</tr>
<tr>
<td>1995</td>
<td>312,384</td>
<td>1775</td>
<td>7.4</td>
<td>45,324</td>
</tr>
<tr>
<td>1996</td>
<td>325,631</td>
<td>2173</td>
<td>13.5</td>
<td>44,001</td>
</tr>
</tbody>
</table>


Production has recovered somewhat from the low of 1992 to return to the higher volumes of the 1980s. This has been accompanied by an increase in exports, with the percentage of production exported remaining at the higher levels achieved since 1990. These changes resulted in improved financial performance with profits being recorded for the first time in 1993 and continuing to grow to a high of $510 million in 1996. These improvements have been achieved despite a steady decline in employment to an industry low of 44,000 in 1996. There is evidence the industry improved after the recession of the early 1990s. However to what extent the workplace reforms contributed to this recovery is uncertain. Some of the workplace change initiatives introduced in the late 1980s and early 1990s have become permanent features of work organisation in the industry. In a 1997 study Park, Erwin and Kapp found 61% of the largest firms in the industry had introduced SAWGs. These had been given increased responsibility, with 72% being responsible for quality, 53% being responsible for organising job rotation within the group, 45% having responsibility for setting daily production tasks, and 42% being responsible for managing unplanned absences. The SAWGs had replaced less permanent QCs, with only 14% of the largest passenger vehicle manufacturing companies continuing with QCs (Park, Erwin,& Knapp 1997).
Conclusion

The automotive industry typifies the experience of the manufacturing sector in Australia. It owes its origins to government protection designed to establish an automotive manufacturing industry in Australia. This was achieved under protective tariffs, import quotas, and other restrictions. However, it resulted in an industry largely subordinate to overseas parent companies. Pressures for reform in the 1970s resulted in little change. This eventually led to a 1985 reversal of government protective policy in an attempt to encourage the industry to become internationally competitive. However, this had little effect and by 1991 the industry was poorly placed to compete in the global market. The local market was close to maturity, with imports advancing into the already diminished local market. Exports, although growing, were restricted by the subordinate status afforded Australian subsidiaries of overseas parent companies. The declining market meant there was little hope of reducing prices by developing economies of scale. Quality, although showing signs of improvement, was still uncompetitive in world terms, while productivity was below overseas standards. This resulted in an unprofitable industry with little incentive to invest. It resulted in the industry in 1990 shedding a significant proportion of its labour force.

These outcomes led to acceptance of the need for wide ranging workplace reform. Changes associated with all three reform processes under analysis in this thesis were trialed in the late 1980s and early 1990s with varying degrees of success. In each instance workplace reform was underpinned by workforce participation. This took the form of both direct participation by individual employees and workforce elected representative participation.

What this overview has been unable to ascertain is the dynamics of the relationship between workplace reform and workforce participation. What is required is greater detail of company specific changes. The next six chapters provides detail of three automotive component companies’ responses to these pressures.
CHAPTER FOUR

AUTO ELECTRICAL (I) 1
_Engineering Competitiveness Through Advanced Technology_

Introduction

The next six chapters set out research findings from three case study companies. These companies were chosen for reasons set out in Chapter One. Principally, all are SCPs with close relationships to all four of the PMV companies. All introduced changes between 1988 and 1993 resembling each of the types of workplace reform - quality management, institutional workplace reform and best practice. Finally, all sought to change management-workforce and union relationships through workforce participation.

The findings from the case studies are presented as follows. Each case study is divided into two chapters. Thus, Chapter Four presents a review of the first case study Company describing its operations and the pressures on the company in the late 1980s. A similar review is provided for the other two case studies in Chapters Six and Eight. Chapter Five describes in detail workplace reform in its three different variants for the first case study firm and then explores the methods of workforce participation associated with each reform process. Chapters Seven and Nine provide similar detail for the other two case study companies. Appendix 1 sets out details of the various data collection techniques.

1 Note: Pseudonyms are used for all the case studies.
Auto Electrical: Ownership and Corporate Role

Auto Electrical is unusual - amongst the three case study firms - its ownership, operation, and work organisation remained, in 1993, much as they had been five or so years earlier when the processes of workplace reform began. Such stability is often absent among medium sized manufacturers (Rimmer et al. 1996).

Auto Electrical is a privately owned subsidiary of a German parent. The company was established in Australia in 1961 as part of the Auto Electrical International Group which operates 20 factories in Europe, North and Central America, Africa, Australia and the East Asia region including New Zealand and the Philippines (AEG 1990a & 1990b). In 1990\(^2\) the Australian contribution by Auto Electrical and the after-market trading and holding company, Auto Electrical Australia, to Group turnover was almost 6%, making it the second biggest contributor to Group turnover outside Germany (AE 1991a). The value of the company to the parent lies in its access to the protected Australian market. A further potential advantage lies in its strategic position close to the South Pacific market, although this had not been utilised during the period under review. Further, when discussing the development of a growth strategy for the company, managers voiced concern at the potential competition for the Asian market from plants owned by the parent company in the Philippines and New Zealand (AE, Board of Directors November 22, 1991). The four member Australian Board of Directors, (all of whom are German expatriates, as is one of the four Associate Directors), is directly responsible to the German Board of Directors (AE 1990b).

Product

The Materials Purchasing and Supply Director (MP&S), stated Auto Electrical annually produces and supplies approximately 7.5 million parts, with a product range of several thousand different items comprising automotive headlamps, auxiliary lamps, signal and sundry lamps (Director MP&S December 8 1992). The company also manufactures many of its own tools and fixtures. This product range was

\(^2\) Dates refer to Financial Year
expanded following a merger in 1984 with a major UK owned competitor. The merger enabled Auto Electrical to supply the whole Australian market for headlamps rather than the previous 25% of the market. This also resulted in design and production of a broader range of electrical equipment for vehicles based upon newly developed (dough-moulding) lighting technology (Managing Director August 1 1992). Auto Electrical is able to apply leading edge technology through access to the German parent company and through the parent’s associated Technical Co-operation Agreements with Japanese component manufacturers. This has enabled the company to establish mutual technical and research relationships for the design of new vehicle models with the PMV producers (Managing Director August 1 1992). However the Plant Director expressed concern at the degree of improvisation required to adapt local technology to company requirements because low production volumes make it impossible to utilise much of the sophisticated technology used by the parent (Plant Director December 8 1992).

The Sales and Customer Liaison Director (Sales), stated 60% of output in dollar terms is original equipment (OE), with the rest being parts and accessories (P&A). Component parts are supplied directly to the Australian automotive assembly companies (Ford, GMH, Nissan, Mitsubishi, and Toyota) with a small amount provided to Auto Electrical Australia for the after-sales market (Sales Director December 8 1992). The Engineering, Research and Development Manager (ER&D) explained pressure from customers in the late 1980s led the company to increase its research and development into production of an integrated Vehicle Lighting Systems Unit (Manager ER&D July 30 1993). This had not proceeded to production stage during the period of this research but had resulted in increased resources being devoted to research and development. Finally, because of its subordinate status as an overseas subsidiary, Auto Electrical can, and has, confined itself to an Australian customer base, exports making up only about 1% of total output in 1991 (Director Corporate Services [CSD] August 1 1992).

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3 Auto Electrical Australia is responsible for the import of finished components for sale on the Australian market from the parent company. In 1993 Auto Electrical and Auto Electrical Australia were amalgamated into one company.
Market

The Plant Director stated the geographical isolation of Australia from the major European and American markets has contributed to a unique technical and research relationship between the company and its local customers that extends beyond the traditional commercial relationship in other parts of the world. For example, Australian PMV customers generally provide more costly model specific tooling in return for a commitment by Auto Electrical to supply spare parts for the life of the vehicle model plus seven years. However, the development of competitors in the Asian Pacific region during the second half of the 1980s changed this exclusive and long-term relationship to a more conventional commercial one. Company products compete for market share against local suppliers - chiefly the Ford owned Plastics Plant, which also produces signal lamps. Competition also comes from imported headlamps and accessories as well as interior and exterior accessory lamps from the parent company plus a growing number of small competitors in Japan and Korea (Director Plant December 8 1992).

Costs

The Director MP&S explained Auto Electrical company purchases around 3000 different items per annum, of which about 1/3 are imported. Imported items include major sub-components such as motors for moving headlamps and cruise controls, glass lenses and bulbs, and raw material acrylics used in production. In total about 50% of material input volume is imported. Remaining inputs, mainly raw materials or relatively simple components such as acrylics, rubber parts, fasteners, cables, paints and foils, are provided by Australian suppliers. Additional cost pressure is placed upon the company by the heavy dependence on overseas inputs, which creates a need for high inventory. Many directors complained the frequent unscheduled delivery changes by customers, coupled with their demand for JIT delivery, also adds to the cost of inventory (AE Board of Directors November 22 1991).

The company divides its costs into three major areas - materials, overheads, and labour. Capital costs are not separately identified (this is interesting given the
importance the company attaches to having leading-edge technology). This is partly explained by the fact that payment for access to international agreements on technology is repatriated to the parent company and thus is separately costed in the company’s annual returns. Figure 4.1 provides an analysis of cost distribution between materials, labour, and overheads.

In 1992 material costs made up 50% of total costs, with inventory valued at over $6 million, or 10% of annual turnover. Labour contributed a much smaller 33% of costs, with process workers (direct labour) contributing only 5% of total costs (AE Finance 1992)⁴. Overheads contributed the remaining 16% of costs. This cost distribution has important implications for any company future strategy. Reducing direct labour (process workers) would have only minor effects on costs, with greater cost impact to be gained by reducing indirect labour (specialists). However the company needs these professionally and technically trained skilled specialists to retain its technical competitive advantage. Thus the company was forced to consider other productivity improvements to try to decrease material costs.

**Organisational Structure**
The organisational structure of the company is represented in Figure 4.2 (AE CSD 1992a).

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⁴ Note: The company did not provide a further breakdown of its costs.
Figure 4.2
Auto Electrical
Organisational Chart-Divisions and Departments 1992

Chairman
Managing Director

Division
Sales &
Customer Relations
- Department
Sales Planning
- Department
Sales Engineering

Division
ER&D
- Department
Design Engineering
- Department
Process Engineering
- Central
Laboratory
- Department
Toolroom &
Maintenance

Division
Plant
- Department
Plant Support
- Department
Plant Production
- Primary
Production
- Quality
Assurance
- Production
Planning
- Production
Engineering
- Mould
- Weld
- Stamp
- Coil
- Stud
- Decorate
- Final
Assembly
- Production
Section 1
- Shrink Pack
- Production
Section 2

Division
MPS
- Department
Purchasing
- Department
Supplier Quality Assurance
- Department
Inward Goods
- Department
Warehousing
- Department
Shipping &
Packaging
- Department
Packaging & Printing

Division
Finance
- Department
Management Accounts
- Department
Financial Accounts

Division
Corporate Services
- Department
Personnel &
Industrial Relations
- Department
Data Processing

Source: AE CSD 1992a
The company is separated into six autonomous Divisions:

1. Plant
2. Engineering, Research and Development
3. Materials Purchasing and Supply
4. Finance
5. Corporate Services
6. Sales

Each Division is responsible for a separate function and is administered as a separate cost centre calculating efficiency and productivity on a weekly and monthly basis by measuring actual expenditure against budgeted expenditure (Director Finance April 29 1993). Each Division is further separated into a total of 18 Departments and five sub-Departments. Divisions are connected through the computer based Materials Resource Planning (MRPII) system augmented, to a limited extent, by formal, interdepartmental planning meetings. Employment is unevenly distribution between departments as shown in Figure 4.3 (AE CSD 1992).

![Figure 4.3](image)

Auto Electrical
Employment Distribution by Department 1992

Source: AE CSD 1992b

In 1992 the Plant employed 68% of the 549 employees. The second largest department, ER&D, employed 16% of the workforce, while MP&S employed 11%, and CSD, Finance, and Sales together contributed around 8% of total employment.
**Corporate Plan**

The Finance Director explained the Corporate Plan for Auto Engineering is based on a traditional short-term financial performance model of a comprehensive annual budget plan (Director Finance April 29 1993). Budget plans incorporate expected future needs, activity levels, and changes from the previous year. Plans are limited to one year as management considers anything longer would not be constructive given the number of variables to be controlled (AE Board of Directors November 22 1991). Overall efficiency is determined by measuring total costs against total recovery. Activity based production planning had not been developed but was under consideration at the time of this research. Despite the emphasis on financial performance, it was claimed the corporate plan is engineering rather than accounting driven as the company considers its strategic market advantage is in its research and development (Director Finance April 29 1993).

**Work Organisation**

Work is organised within Auto Electrical on a functional, task basis into numerous divisions, departments, and sub-departments. Tasks are technologically determined.

Production is carried out within the Plant Division which is divided into two Departments - Plant Support and Plant Production. The Plant Support department is separated into three functional sub-departments - Production Planning, Quality Assurance, and Production Engineering. The Plant Production Department also separates into two functional sub-departments - Primary Production and Final Assembly. Primary Production includes various separate task related sections - moulding, dough moulding, welding, stamping, coiling, studding, and decorating. This department provides around 50% of inputs to Final Assembly. Final Assembly divides into two separate task sections - small lamps and headlamps, plus a mobile shrink-pack servicing both sections. A workflow chart for the Plant is reproduced in Figure 4.4.
Figure 4.4

Production Flow Chart

Planner

Check customer order requirements

Y

N

Check due date for delivery, advise supply department and toolroom

Raw material, packing material, tooling availability

Y

N

Issue order on production department

Manufacture goods to order requirement

N

Y

Goods manufactured to specifications

Rework N

Any further operations to complete goods

Finish all operations

N

Y

Goods booked out

Y

N

Quality OK (Audit Inspection)

Source: AE Production Planning 1992
The following section first explains the role of the production support departments before turning to a detailed description of the actual production process. The section is completed by a description of the role of specialist departments.

The Manager, Production Engineering explained the production process is designed in accordance with the German parent company. Professionally qualified engineers in Production Engineering, together with the Plant Managers, make adjustments for local circumstances after which the design is passed to both Planning and Quality Assurance departments (Manager Production Engineering December 8 1992).

The Manager Production Planning explained the production planning process relies upon a computerised Materials Resource Planning (MRPII) system installed in its original form in 1982. Professionally qualified Production Planners operate the MRPII system to produce a Cumulative Plan (covering eight months) which establishes monthly schedules produced as weekly and daily plans. Planners check customer order requirements, availability of raw material, packing material, and tooling, and issue orders on the production department (Manager Production Planning December 8 1992).

The Manager Quality Assurance explained the department is responsible for product quality. Quality of supplier inputs is the responsibility of a separate department, Quality Assurance, within MP&S Division. Production Quality Assurance is under control of the Plant Director although it is functionally separated to ensure quality is not compromised by the quantity demands of customers. Professionally and technically qualified engineers and technical officers set targets, issue charts and audit the production process through computer data analysis (Manager Quality Assurance July 20 1993). Feedback on quality is made to the production workforce in monthly reports on costs of failure and attribute charts and through daily product audits. There is no requirement, nor encouragement, for feedback from process workers considered lacking the necessary expertise to provide useful information (Manager Quality Assurance July 20 1993).
Targets are set according to a ‘made-to-measure’ process with data from the previous production run used to determine control levels for the next run. Testing is carried out against standards set by the company’s Quality Systems Manual. The Department relies upon control charts (attribute, variable and individual) to monitor the production process. Reliability of finished product is formally monitored and analysed both internally and externally through customer feedback (which accounts for 90% of monitoring) and field data. Technologically sophisticated testing equipment such as technical sensor checking devices, 3D measuring equipment, programmable logic control and, electronic leak testing devices measures reliability. Data is analysed by a computer software program developed by the Department in 1988. Customer feedback and analysis of warranty data is relied upon to check reliability of finished product. Final measurement of quality performance is performed by traditional aggregate economic indicators of rate of return, turnover, profit on turnover, profitability and cost-benefit analysis. Between 1987 and 1993 these measures showed variable performance, with actual performance meetings targets between 1987 and 1991 but declining below target in 1992 and 1993 as costs increased associated with new product development.

Production occurs on a two-shift basis, chiefly because the machines require 24-hour operation. The Plant is split into two functional sub-departments. First is Primary Production. The Manager Primary Production, described the production process as capital intensive, operating as a flow-line process. Work is organised around 26 different machines, moulding, welding, stamping, coiling, studding, painting, and decorating, product. Some of these machines are mechanically controlled, some are automated, and some, like the dough-moulding machine, are computerised. Production occurs in 20 possible lines, seven for original equipment, and 13 for spare parts, with an average of five lines running daily and seven monthly. Work is organised according to machine capacity, with a skeleton staff running the night shift to keep the machinery functioning (Manager Primary Production December 8 1992).

In the moulding section process workers feed raw materials into processing machines and remove moulds from the machines. These moulds are then placed into cutting and shaping machines or stacked ready for delivery to the coating section. Machines
are set, process problems are addressed, and die changes performed, by setters. Process workers are expected to check machine gauges in order to detect process problems but they are not expected to make any adjustments. Any problems are notified to supervisors who decide on the action to be taken. In the coating section, general hands sort components and feed product into the machines to be stamped, studded and welded. They are also responsible for ensuring the area is dust free. Skilled welders use hand-held tools to perform welds inaccessible to the machines. Skilled spray painters operate hand-held paint spray guns or machines to decorate product as moulds pass along a moving conveyor. The dough-moulding process is computerised and operated by a crew of semi-skilled general hands who feed raw material into the machines and then withdraw and stack finished moulds for final treatment. The fitters who set the machines used in this process are highly skilled in computer technology since any mistake in this process is costly given the non-recyclable nature of imperfect product. Finally, skilled spray painters operate the dough-moulding treatment process.

In 1992 semi-skilled process workers and general hands (several trained as die-setters) contributed 70% of the 152 persons employed in this sub-department. There were also 37 skilled tradespersons, spray painters and fitters, to perform more skilled work (AE CSD 1992b).

The second functional sub-department is Final Assembly. The Manager, Final Assembly explained work is organised into two sub-sections - lamp and headlamp. Seven lines operate on a flow basis, and up to three lines operate on a batch basis to produce parts for superseded models and other spare-parts. Work in this Department is more labour intensive with lamps assembled using hand-tools to fasten, drill and screw parts. The department has some technologically sophisticated machines to stamp and hole-punch and a glue-robot for final adhesion. Finally, a mobile ‘instapack’ process operated by process workers services both sub-departments, while materials movement within production is undertaken by semi-skilled storespersons and licensed fork-lift truck drivers (Manager Final Assembly December 8 1992).
In 1992 over 90% of the 130 persons employed in this sub-department were semi-skilled process workers, general hands, storespersons and fork-lift truck drivers, with a small number trained to set machines and operate the robot (AE CSD 1992b).

The technological sophistication of the machinery used in production is not reflected in the skills of the Plant workforce. Figure 4.5 shows the classification distribution of the Plant workforce (AE CSD 1992b).

![Figure 4.5](image)

Source: AE CSD 1992b

Around 75% of the production workforce are classified at the lower levels of skills as process workers and general hands. Only 10% are skilled tradespersons and only 5% are technically or professionally qualified. The remaining 10% are in administrative or managerial positions.

Expenditure by the company on upgrading production workforce skills further reflects the company’s technological focus. Training expenditure increased from 1.5% of total annual salary in 1990 to almost 3% in 1991 and 1992. However the Plant contributes only about 1/3 of total training expenditure despite much larger workforce, compared to around 50% contribution by ER&D Division. Estimates of relative expenditure on training between Division are given in Table 4.6 (AE CSD 1992c).
Expenditure on training in 1992 shows a Plant average of around $147 per employee, compared to an average of $581 per employee in ER&D Division.

Productive efficiency is measured in a number of ways - ‘departmental efficiency’ ‘operating efficiency’ and stock turnover. Departmental efficiency is measured by hours spent in the department minus lost time due to such things as breakdowns, shift changes, and line stoppages. Operational efficiency is measured by productive hours recorded against standard hours allowed to produce a given item (standard set by Production Engineering). The company was loath to release these figures however the Plant Director stated that time taken for die-change was being targeted as a necessary improvement. In order to achieve a shorter turnaround the plan was to increase automation, use less people with greater levels of skills. Increasing the level of quality consciousness among the workforce was also a target area (Director Plant April 29 1993). Stock turnover has been steadily improving since 1987 from 63 days in 1987 to 55 in 1992. However this needed further improvement to be internationally competitive.

Apart for production there are five specialist divisions separated into 16 departments. The second largest division in employment terms is Engineering, Research and Development. ER&D is responsible for all planning, research, design, and testing of product, and all maintenance (AE CSD 1992c). These functions are undertaken within four functionally separate departments - Design Engineering, Process
Engineering, Central Laboratory, and Toolroom and Maintenance. Work performed in this division is varied and requires professional qualifications and skills associated with problem identification and solution. In 1992, as shown in Figure 4.7, employees in ER&D were more highly skill classified than in the Plant.

Figure 4.7

<table>
<thead>
<tr>
<th>Classification</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof./Tech.</td>
<td>52%</td>
</tr>
<tr>
<td>Trade</td>
<td>32%</td>
</tr>
<tr>
<td>Other</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: AE CSD 1992b

More than half the employees in this Division were professionally qualified engineers, technicians, planners or scientists and a further 32% were trade qualified. These highly skilled employees use state-of-the-art technology. This technology includes a laboratory that is National Association of Testing Authorities (NATA) rate, optical and photometry devices that meet NATA standards for on-road testing, environmental testing equipment, metrological equipment, equipment that is Computer Numerically Controlled (CNC linked to Computer Aided Drafting (CAD) to form a Computer Aided Manufacturing (CAM) process. Efficient scheduling of maintenance is achieved through a computerised preventive maintenance plan operated by the toolroom.

Materials Planning & Supply is the next largest Division (AE CSD 1992b). The Division has six functionally separate Departments - Purchasing, Quality Assurance (supplies), Inward Goods, Warehousing, Packaging and Printing, and Shipping and Packaging. All these are once again assisted by technology. Purchasing is based upon a computerised MRPII system. Supplier Quality Assurance department monitors quality of inputs using computerised testing equipment. An incoming audit of supplies is carried out by random inspection with surveys of supplier sites carried out periodically. Inward goods and finished product are stored in the warehouse with stock control undertaken using computerised label printing and bar coding. Internal
materials management is assisted by mechanised forklifts and automated vacuum-lifting machines. Finally, professionally qualified technicians and planners in the Shipping and Packaging Department and the Packaging and Printing Department, assure that product is despatched (Director MP&S December 8 1992).

Three smaller divisions assist these processes. First is Finance in which professional accountants perform all managerial and financial accounting functions. Second is CSD within which professionally qualified and experienced employees monitor all personnel and industrial relations issues and perform data processing. Finally is Sales and Customer Relations in which professionally qualified and experienced planners and technicians are responsible for all customer contact including sales planning, and sales engineering. These last three departments contribute around 8% to overall employment. All are assisted by state-of-the-art computer hardware and software packages (AE CSD 1992b).

Thus work organisation within Auto Electrical is capital intensive, technologically driven process and based on a rigid division of labour. This has resulted in the workforce being fairly evenly divided between semi-skilled process workers and technically and professionally qualified specialists as shown in Figure 4.8 (AE CSD 1992b).

Figure 4.8

Auto Electrical
Classification of Workforce 1992

Semi Skilled 52%
Trade 14%
Tech. & Prof. 19%
Other 15%

Source: AE CSD 1992b

Employees have, however, different degrees of variety and autonomy in their work. For semi-skilled workers tasks are repetitious and tightly controlled, while
professional, technical and trade skilled workers have both more autonomy and more
variety in their work. This has led to a marked division and separation between
process workers in the Plant and specialists, that restricts communication, reduces
integration, and reduces ability to seek cross-departmental and cross division
improvements.

Management

This separation between divisions and departments and between process workers and
specialists is reproduced in the management structure. Management is organised into
a multi-tiered hierarchy as represented in Figure 4.9 (AE CSD 1992a). There are six
Divisional Directors, with 19 departmental managers reporting to them and 22 second
level Managers, Supervisors and Co-ordinators reporting to the departmental
managers. Management, including Supervisors, accounts for about 10% of total
employment within the company. Although Supervisors from the Plant are not
considered to be part of management by other more senior managers, they do have
responsibility for many employment-related issues. Supervisor responsibilities
include organising the workforce (overtime rosters, rest breaks, industrial and
counselling issues) as well as quality and scheduling of production.

The Board of Directors is the chief decision making body for the company. The
Board meets weekly with the six Divisional Directors to discuss broad company
matters. There are no formal meetings of departmental managers except those
associated with the Quality Council and the Health and Safety Committee (AE Board
of Directors November 22 1991). Management makes all decisions within the
company.
Employee input into decision-making is limited to production meetings of management appointed employee representatives when production schedules permit. Common employee responses to questions related to their input into decisions indicate resentment of their lack of opportunity to become involved. The following responses were given to the question:
If consultation is to work what changes need to be made to the way managers act?

- increase trust, objectivity and commitment
- eliminate ‘them and us’ attitudes
- remove rule by fear
- reduce departmental barriers
- recognise everyone works for the same company, not departments
- management needs to communicate the company’s long term plan
- more direct contact is needed between management and the workforce
- workforce should be trained in communication skills
- management should practice what they preach (Focus Groups August 28 & September 12 1991).

These responses confirm the experience of low-level consultation between management and employees requiring management to take a more proactive approach before employees can actively participate.

**Human Resource Management**

The CSD Director and the Personnel and Industrial Relations Manager stated the personnel function at Auto Electrical is limited in scope, fragmented by departments, and reactive. Departments are responsible for their own employment and perform all recruitment, promotion, and training, with only limited support from the Personnel and Industrial Relations Department. The personnel role is confined principally to managing the payroll, co-ordinating training needs, providing health and safety support, performing general personnel functions and collecting staff statistics (Manager Personnel & Industrial Relations September 15 1992). This limited role suggests the company has a low priority for human resource issues with policies evolving largely in response to government legislation. This is demonstrated by the company’s approach to Equal Employment Opportunity, Training and Occupational Health and Safety.

First, to take Equal Employment Opportunity. In 1988 the company developed an Equal Employment Opportunity Policy. The Policy sought to ensure “regardless of sex or nationality, all present employees will be considered on their qualifications, skills, abilities and aptitudes for all future job opportunities” (AE CSD 1988a). The Policy was extended in 1991 to an Affirmative Action Policy (AE CSD 1991a). However little changed in practice. Although the workforce is made up of
approximately equal number of males and females, males dominate in the higher skilled classification in all divisions. Women are employed mainly in clerical and semi-skilled light-assembly work. There are no females employed in trade positions or as plant or machinery operators/drivers or in sales positions. Only 17% of professionals and para-professionals are female. There are no female Board members. There is only one female with a managerial title, however this position is not included as a management position on the organisational chart nor is it remunerated as other managerial positions. Finally, there are only six female supervisors, three in Accounts and Administration, and three (of 13) plant supervisors (AE CSD 1992b). The limited application of the EEO policy is further demonstrated by typical employee responses to the question –

What changes have occurred in equal employment opportunity in the last 5 years and what further changes are needed?

- need to change the performance appraisal system to remove the possibility of personality conflict, misunderstandings and departmental differences on points scored
- need to make people more aware of the legislation on Equal Employment Opportunity and Affirmative Action
- treat everyone’s ideas equally
- develop common health and safety standards
- increase individual confidence (Focus Groups August 28 & September 12 1991).

These responses suggest that despite company policies on equal employment opportunity, employees considered that there was little demonstrated equality of opportunity.

Second, what of the company experience with training? Although the company expended around 3% of payroll on training in 1991 and 1992, this training was not centrally co-ordinated to ensure fairness and equity but rather was initiated by individual departmental managers (Manager Training and Development July 20 1993). This resulted in a differential approach to training in which the less skilled production workforce were afforded less access to training compared to the already skilled professional and technical workforce. This is illustrated by the wide-range and number of typical responses by employees to the question:

What training would you like to do if you had the opportunity?

- clerical
- language
- graphic design
- tool-setting
These responses suggest wide ranging interest amongst employees in improving skills. When questioned further, employees showed a clear understanding of what assistance they required in order to participate in further training. Employees gave the following typical responses to the question –

**How could training be improved?:**

- need to encourage and praise participants
- train internal employees as trainers
- improve English language skills
- make more use of downtime
- bridge the gap between engineering and production
- form a training committee
- check for understanding
- more consultation with the shop floor
- need to train everybody not just the same people all the time (Focus Groups August 28 & September 12 1991).

These responses indicate many employees wanted to be trained but were critical of company support for training. On the other hand management believed that employees were not prepared to sacrifice their own time for training. An example given during one of the focus groups is set out below:

Management in one of the focus groups complained that the company provided two paid hours of government assisted English-language training per week. When this was changed to 1 hour paid time and one hour unpaid time at the end of a shift employee interest reduced. In response to this accusation employees (many of whom were women) stated that if the training had been later at night (say 7pm) they would have been happy to participate. But the training was only offered at the end of the shift and this was when they had family responsibilities (Focus Group September 5 1991).

This example was a clear indication of the lack of communication and consultation between managers who were making decisions and workers affected by these decisions, which led to mistrust, and frustration between the management and employees.

Third, to take company experience of Occupational Health and Safety (OH&S). OH&S was more progressive in Auto Electrical following the introduction in 1982 of a new company based Industrial Health, Welfare and Safety Policy (AE CSD 1982).
This Policy attempted to change the emphasis of health and safety away from compensation towards prevention. In 1988 a Rehabilitation Policy was added which emphasised “the speedy and complete rehabilitation of employees suffering from work related injuries or illness” (AE CSD 1988b). However this was abandoned in 1990 in response to management complaints that they could not find suitable light duties for injured workers (Manager Health and Safety July 20 1993).

These initiatives did result in a reduction in health and safety claims from 55 between 1986 to 33 in 1992, with working-days lost over the same period being reduced from an average of 65 to less than 20 days (AE CSD 1991b). However the Manager Health and Safety stated that joint health and safety committee did not function truly as a joint body, making use of employee ideas. Rather they still operated under a philosophy of managers and specialists engineered-out problems rather than employees helping to assist in more safe processes (Manager Health and Safety July 20 1993). The lack of participation by employees in the resolution of health and safety problems was demonstrated by typical responses of employees to the question:

**How could health and safety be improved?:**
- listen to people on the workshop floor
- more feedback from the safety committee
- establish small groups in each department to interact with the safety committee
- everyone become involved
- more training (Focus Groups August 28 & September 12 1991).

These responses demonstrate employee frustration that their ideas for improving health and safety were not respected or attended to by management.

**Wages and Industrial Relations**

The Metal Industry Award sets wages and working conditions for the majority of employees. A small number of employees are covered by the Federal Transport Workers Award, while clerical employees and the Occupational Nurse were paid according to the State Commercial Clerks Award and the Registered Nurses Award until these awards were terminated by the Employee Relations Act, Victoria (Victoria Parliament 1992). During the time under review the company continued to adhere to the wages and conditions in these Awards. The company has traditionally paid over
award allowances for skills. On average six percent over award is paid to process workers trained as on-line quality control inspectors, and 20% over-award is paid to the tradesman/tool setter classification (Manager Personnel and Industrial Relations September 15 1992). An individual Employee Appraisal System offering eight percent wage increase subject to supervisor and manager assessment of performance existed until it was terminated in mid 1992. The system was abandoned because of concerns expressed by employees about the subjectivity of managerial appraisal. Around 80 employees (specialists and managers) are award free. They are paid under individual contracts negotiated according to market rates.

The Manager Personnel and Industrial Relations stated the workforce is substantially unionised with around 80% of the workforce being union members. The Plant is the most highly unionised. In 1992 there were five separate unions on site (reduced from six in 1991 with the amalgamation of the Association of Draughting, Supervisory and Technical Employees (ADSTE) and the Amalgamated Metal Workers Union (AMWU) into the Metal and Engineering Workers Union (MEWU), (Manager, Personnel and Industrial Relations September 15 1992) ⁵. The Director CSD explained this large number of unions resulted from a number of factors peculiar to the company. First, the functional and task related work organisation had produced strongly defended demarcations between jobs to assist employment security. Second, the company merger in 1984 resulted in members of two rival unions being employed by the merged company. Third, the Federated Clerks Unions maintain a more significant membership than usual in manufacturing companies. Fourth, supervisors are not required to resign from the union on promotion and most have chosen to retain their union membership (ADSTE). Finally, the largest union on site is a union not normally represented in manufacturing - the Federated Miscellaneous Workers Union (FMWU), (Director CSD September 15 1992). The distribution of union membership presented in Figure 4.10⁶ (AE CSD 1992b).

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⁵ Given the frequent changes in name of this union, in this thesis the abbreviations AMWU are used throughout.
⁶ Due to a number of amalgamations involving unions during the period under research names were changed (sometimes several times). For the sake of clarity I will continue to use the union names as identified here.
Figure 4.10

Auto Electrical
Union Membership Distribution 1992

Source: AE CSD 1992b (note TWU membership of 1% not shown on diagram)

Around 50% of company employees are members of the FMWU. This is much higher than any other union, with the AMWU being the next largest with only 17% of company employees. Each of the other unions cover only 5% of company employees each, while the Transport Workers Union of Australia has only 1% of employees.

The Director CSD described union involvement in the company as taking place at two levels. First, most bargaining on wages and working conditions is conducted at the industry level. Second, shop stewards, assisted by full-time paid officials, negotiate company specific problems (Director CSD September 15 1992). The presence of full-time officials on site is substantial, with shop stewards relying on officials to negotiate demarcation disputes (Ormsby December 9 1992). There were no regular meetings between shop stewards and management until 1985 when the new Director of Corporate Affairs (who had been the general manager of the company with which Auto Electrical merged in 1984) established regular, formal meetings with representatives from each union. However separate meetings were held with each union and thus had little effect on reducing the potential for demarcation disputes, while occupying a great deal of time for both management and union representatives. Finally, the many layered and hierarchical management structure, and adherence to a traditional collective bargaining model of industrial relations, resulted in little, if any, participation by the workforce in the day to day activities of the company.
Pressures for Change

It is possible to distinguish internal from external pressures – the former stemming from new policies, the latter stemming from market, government, union and other environmental factors. For Auto Electrical, despite evidence that internal communication problems existed this did not lead to significant change to policies. Rather pressure on the company for change came chiefly from external agencies.

The first environmental pressure for change was the product market. Given the local PMV producers are the principle customers for the original equipment produced by Auto Electrical, the market for this equipment is largely dependent on the market facing these producers. As indicated in Chapter Three, by the late 1980s the market for new PMVs was under pressure from government policy, exchange rate fluctuations, near-saturation of demand and increasing competition from imports. In this environment the market for Auto Electrical products was similarly pressured. This is shown in movements in key performance data as summarised in Table 4.1 (AE Finance 1993).

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales $M</th>
<th>Net Profits (Pre Tax)</th>
<th>Return On Paid Up Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>61382</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>1988</td>
<td>70207</td>
<td>13%</td>
<td>47%</td>
</tr>
<tr>
<td>1989</td>
<td>78183</td>
<td>17%</td>
<td>74%</td>
</tr>
<tr>
<td>1990</td>
<td>80216</td>
<td>13%</td>
<td>50%</td>
</tr>
<tr>
<td>1991</td>
<td>61237</td>
<td>6%</td>
<td>17%</td>
</tr>
<tr>
<td>1992</td>
<td>56387</td>
<td>12%</td>
<td>31%</td>
</tr>
<tr>
<td>1993</td>
<td>60000</td>
<td>6%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: AE Finance 1993

Sales turnover for the company peaked in 1990 at $80 million, following a steady increase since the merger with a major product competitor in 1984. After 1990, sales declined, causing a fall in net profit before tax from around 13% in 1990 to around 6% in 1991. Fluctuations continued with net profit return increasing from this 6% in 1991 to 12% in 1992 and then restructuring down to 12% in 1992. Similarly, return on paid up capital reached a high of 74% in 1989 after which it declined significantly to a low of 16% in 1993 despite a small upsurge in 1992.
The Managing Director explained some of the decline resulted from the recession and other changes in the PMV sector. The decision by Ford in August 1991 to halve the production of the Capri resulted in a loss to Auto Electrical of 1200 pairs of headlamps per month and some courtesy lamps. A further six to seven percent of sales was lost by the closure in October 1992 of the Nissan manufacturing plant. However a much larger loss of market was due to price competition from overseas and local companies. Despite the retention of its Ford market, the company lost one GMH contract in 1992 to a Korean company and a second GMH contract in 1993, worth between 15% and 20% of sales, to a small niche company operating in New South Wales (Managing Director August 1 1992). These contracts were not regained during the period under review although these losses were partly offset by a new contract with Toyota.

The company was not able to take advantage of the expansion of the automotive market in Asia as it lacked an export capability because of its traditional confinement to the local Australian market. The Managing Director complained the reduction in Australian federal government protection for the industry in the 1980s caused many of its problems, especially as it occurred at the same time as governments in Asia were supporting the development of their own fledgling industries. For example the loss of the GMH contract to the Korean based company was blamed on the provision of costly tooling by the Korean government which substantially reduced the price of components to PMV customers (Managing Director August 1 1992).

The fall in sales had a negative effect upon employment within the company. The company had been downsizing its workforce gradually since the mid 1980s – a phenomenon apparently widespread in manufacturing - from a peak of 746 in 1985 (the employment peak resulted from the transfer of 80 employees following the merger in 1984), to 549 in 1992. The employment trend is shown in Figure 4.11 (AE CSD 1992b).

7 Although outside the time period under review, it is relevant to note that in 1994 the parent established a totally separate Auto Electrical Asia Pacific (with headquarters in Victoria) with the exclusive role of developing a strategy for the South Eastern and Pacific markets.
High labour turnover (36% in 1988) assisted the downsizing, although this had reduced to 12% by 1992 (probably a result of the recession). When combined with a further decline in the market, the company was forced in 1993 to offer a round of retrenchments. This resulted in the loss of 76 employees, mainly from the Plant, which meant by 1993 company employment was less than two-thirds of the peak in 1985.

The second environmental pressure came from customer quality demands. In the late 1980s PMV companies increased their demand for quality improvements from their suppliers. The improvements were to be in finished product and delivery as well as process improvements. Management at Auto Electrical was relatively unconcerned about these requirements as they maintained they produced a superior quality product (AE Board of Directors November 22 1991). Instead they criticised customers for their frequent delivery rescheduling as these made planning, process changes and just-in-time delivery difficult. They also criticised customers for having apparently inconsistent priorities in their demands that local producers supply high quality product but then award overseas contracts on price alone. This managerial attitude within Auto Electrical suggests the company was unprepared to make significant change to accommodate customer quality demands.
The third and final environmental pressure came from industrial relations developments. In the late 1980s the federal government supported demands for decentralising bargaining to the enterprise level. The new bargaining structure required significant change for Auto Electrical given the number of unions on site and the lack of a single department with responsibility for all employment related issues.

Summary

In summary, Auto Electrical is a subsidiary of a German company established in Australia in the 1960s to take advantage of the Federal Government’s incentives for the local automotive industry. The company’s subsidiary status means its decision-making process is strongly influenced by the parent. It also means the company’s scope for development is limited by decisions to confine sales to Australia.

The company relies upon a work organisation modelled on ‘Fordist’ principles as summarised in Table 4.2. Departments are segmented on a functional basis into numerous divisions, departments and sub-departments. The Plant is the largest employing division with almost 70% of employees. The production process is technologically determined and standardised by industrial engineers into short cycle times. Production is defined by narrow, repetitive tasks with limited job rotation, flexibility, and limited autonomy for the workforce. In contrast, work in the service departments is more skilled, allowing employees more autonomy, variety and flexibility.
### Auto Electrical

**Work Organisation-Mass Production Model**

<table>
<thead>
<tr>
<th>Departments</th>
<th>segmented, functional- numerous divisions, departments, and sub-departments plant is the major employing division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>standardised by industrial engineers technologically determined – state-of-art short cycle time per job routine, computer-driven maintenance schedule</td>
</tr>
<tr>
<td>Job design</td>
<td>technologically determined plant - narrow, individual, tasks based with limited job rotation and flexibility support – more autonomy, flexibility and variety</td>
</tr>
<tr>
<td>Skills and Depth of Knowledge</td>
<td>more than half are semi-skilled, but over 30% technical, professional or trade</td>
</tr>
<tr>
<td>Product design</td>
<td>superior performance model specific style options no design for manufacturability</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>lacks formality, reactive</td>
</tr>
<tr>
<td>Industrial Relations</td>
<td>adversarial – multitude of strong union</td>
</tr>
<tr>
<td>Product Quality</td>
<td>quality inspection post production no continuous quality improvement no employee involvement</td>
</tr>
<tr>
<td>Market Segment</td>
<td>local Australian market</td>
</tr>
<tr>
<td>Management</td>
<td>centralised, segmented hierarchical dominated by managerial prerogative</td>
</tr>
</tbody>
</table>

This has resulted in little integration of activities and poor communication between departments and divisions. It has also produced a semi-skilled production workforce separated from the highly skilled specialists in support departments. Specialists design product with no input from the Plant and thus no ‘design for manufacturability’. The technological focus of the company has resulted in little attention being given to human resource management and there is a reactive and reactionary approach to the unions. In response a strongly unionised, multi-union structure has developed in the Plant. This has resulted in a lack of employee concern for, or involvement in, quality improvement and the continuation of quality improvement driven by technological change. Finally, management is structured as a separated hierarchy with all decisions made by management. This has resulted in resentment and lack of trust between employees and managers.

By the late 1980s Auto Electrical was a company under stress. Its local market was adversely affected by economic developments, with little export activity to provide a
buffer for the company. The company could no longer rely on its superior quality and
technology to maintain market dominance given increased pressure on prices. It was
not competitive with either overseas competitors or local niche market companies.
The company was poorly structured to accommodate change with divisional and
departmental separations and rivalries supported by multiple levels of management
wishing to preserve the status quo. Employment suffered from these economic
pressures with employees unable to cope with changes due to low skills. The
company was restricted in its responses to these pressures by a rigid cost structure and
a capital-intensive focus. Human resource management issues were ill considered and
an adversarial industrial relationship characterised management-workforce
interactions. In this commercial and industrial relations context the company’s intent
in workplace reform is easy to explain. The next chapter explores the nature of
workplace reforms and of workforce participation.
CHAPTER FIVE

AUTO ELECTRICAL (II)
Management Controlled Reform

Introduction

This chapter sets out in detail how Auto Electrical implemented the three workplace reform processes - quality management, institutional workplace reform and best practice – introduced in response to external pressures described in Chapter Four. The chapter is organised as follows. The first section presents the major changes introduced under each of the reform processes. These are summarised in Table 5.1. The second section explores the operation of these changes in terms of workforce participation. The conclusion is twofold. First, change under the reforms lacked a strategic, integrated focus. Second, the form of workforce participation introduced was principally representative through Consultative Committees, which although structurally supported, lacked commitment from either management or the workforce. This resulted in little realisation of the opportunity to improve productivity through workforce change, and instead maintained a continued reliance upon costly technological improvements.
Table 5.1

Auto Electrical Workplace Reform

<table>
<thead>
<tr>
<th>DATE</th>
<th>Quality Management Reform</th>
<th>Institutional Workplace Reform</th>
<th>Best Practice Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>two tier agreement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>strategy adopted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ford Q101 achieved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>Quality Council</td>
<td>translation classifications in Metal Industry Award</td>
<td>Managing Director on an automotive industry study tour USA</td>
</tr>
<tr>
<td>1990</td>
<td>training of eight process workers as Process Quality Controllers</td>
<td>process workers to initial work for traceability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>process workers to initial work for traceability</td>
<td>training in Statistical Process Control techniques for Plant employees by Quality professional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enterprise Agreement (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>GMHB+</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mitsubishi Motors ‘A’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>Ford Q1</td>
<td>Enterprise Agreement (2)</td>
<td>WCM Workshop and management teams</td>
</tr>
<tr>
<td></td>
<td>Nissan Quality teams</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>first Kaizen team - Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>management Kaizen team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supplier Quality Assurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8D and Failure Mode and Effect Analysis training – Project Teams</td>
<td>Enterprise Agreement (2)</td>
<td>WCM Workshop and management teams</td>
</tr>
<tr>
<td>1993</td>
<td>Kaizen team training – entire company</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Quality Management Reform

The Manager Quality Assurance claimed the company had a good history of product quality rating with its PMV assembly customers. This led to timely awarding of the new quality assessment ratings by its customers. In 1988 it was awarded Ford Q101 preferred supplier status, with an upgrade to Ford Q1 in 1992. In 1991 it was awarded GMHB+ quality rating and Mitsubishi Motors Australia Ltd 'A' category rating (Manager Quality Assurance July 20 1993). This meant initially there was little pressure on the company to change its quality process.
Auto Electrical relied upon a traditional approach to quality, in which engineering experts confined assessment to final product checking from the Quality Department. The Quality department, in consultation with the ER&D department, and the parent company, set quality standards and strategies for quality improvement. Plant supervisors were responsible for ensuring adherence to quality standards. Management considered quality was principally dependent upon employees performing their tasks correctly. Quality problems, in their view, arose because employees did not follow procedures “quality needs a technical judgement and the problem is people do not stick to procedures” (Manager Quality Assurance July 20 1993). Employees, on the other hand, adopted the view similar to Deming’s (Deming 1982) quality problems were system related. This difference in view as to the root cause of quality problems is demonstrated by a sample of common responses as set out below from employees and management to the question:

*Would you buy the products made by the company?*

- quality is good but variable
- quality of finished product depends on quality of raw materials
- quality depends on whether quantity or quality of output is emphasised.

While management representatives stated that:

- quality depends on whether workers identify problems (Focus Groups August 19 & September 5 1991).

This resulted in a concentration on final product rejects and customer complaints as a measure of quality performance rather than process quality measurement through quality problem documentation and measures of scrap and rework.

In 1988, as part of its response to the new customer rating system introduced by its assembly customers, Auto Electrical did introduce some changes to process and product quality, chiefly with regard to planning, documentation, and identification of critical characteristics. Table 5.2 summarises these changes in terms of the Ford Quality System Standard (Ford 1990), (Ford being one of the company’s major customers). However, as will be demonstrated, these changes did not reduce reliance upon technical monitoring of quality through technology and by technical experts.
Ford Quality System Requirements | AE Change Process
---|---
**PROCESS and PRODUCT QUALITY** |  
evaluate process capability | Senior management quality council assisted by management quality report meetings  
product control | on-line process control  
process control | Technology upgraded  
8D reports | computer package developed  
Statistical Process Control to monitor processes and improve capability | process workers trained in Statistical Process Control techniques  
provide lot traceability | Nissan training  
plans for continuous improvement | Kaizen teams  
**PLANNING** |  
Failure Mode and Effect Analysis | Employees to initial all work  
control plans | quality department  
**DOCUMENTING** |  
**CRITICAL CHARACTERISTICS** |  
key quality disciplines for control items | Quality department through computer based software assessment

Management Related Change

First, in 1989 a Senior Management Quality Council was established with responsibility for developing company policy on all quality matters. The continuing focus on technical aspects of quality, and on managerial control, was demonstrated by membership of the Council. All company Directors plus the managers of the three manufacturing related departments - Plant, ER and Development, and MP&S - were represented. However there was no representation from the Personnel or Finance departments. Similarly, there was no workforce or union representation on the Council.

The Council had no formal terms of reference, rather it was simply established to meet monthly to consider advice from departmental managers. In turn the departmental
managers were to hold monthly Quality Report Meetings to determine suggestions for the Quality Council.

It was planned that communication of quality issues within the company would be improved by a multi-layered one-way information sharing process as shown in Figure 5.1.

The Council would communicate its decisions to the Quality Report Meetings, which would then report to cross-departmental Quality Control Project Teams of Managers. These latter Teams would prepare material for Supervisors to inform employees. Thus the first focus of the company was upon improved communication of managerial decisions rather than any change to the decision-making process.

However this had limited impact on employee attitudes to quality, with employees continuing to see quality changes being dominated by technology improvements into
which they had little input. In 1991 the following inclusive responses from employees were recorded in answer to the question:

**What changes have occurred in quality in the past five years?**

- **New technology** – barcoding, instapack machine, glue robots, computers and compressor for planning and testing, dough-moulding machine, NC milling machine, goniometer system in optical laboratory, vibrator in coating department, electronic clocking system, dust-free spray booths, washing plant, foolproof jigs, modification of tools
- **Process Changes** – SPC, workers authority to reject components, time to discuss quality problems, Made-to-Measure, identification of rejects (Focus Groups August 28 & September 12 1991).

This suggests employees saw some increase in their role in quality improvement, but more attention being placed on technological measurements. This led, in their view, to limited quality improvements as broader structural and cultural change is needed. This was demonstrated by the plethora of responses recorded in answer to the question:

‘What changes need to be made in your work area to enable you to produce a better quality product without waste?’

- **Process Improvement**
  - Closer attention to detail
  - Increase size of orders
  - Ensure on-time production
  - Better planning
  - Sufficient time to complete the process
  - Careful handling of components between stations
  - Easier manufacturing procedures
  - Preventative maintenance
- **Better Materials**
  - Insist on better quality supply
- **Employee relations**
  - Better communication
  - Train the trainer
  - Better relations between management and workforce
  - More feedback
  - Co-ordinate teams
  - Better work environment
  - Reduce language barrier
  - Remove double handling
  - Regular maintenance of tools
  - Comfortable working conditions
  - Better co-operation
  - Better knowledge of products
  - Better communication between shifts (Focus Groups August 28 & September 12 1991).

These responses suggest employees at Auto Electrical believed their role in improving product quality was undervalued. Indeed some managers professed similar views, with one Production Managers stating workers should be consulted, as they are the ‘experts’ (Focus Groups August 28 & September 12 1991).
Second, in August 1992 a management workshop on ‘World Competitive Manufacturing’ (WCM) was held. Arising out of this three Project Teams of managers were established to collect information on issues determined crucial to the company future - organisational culture, Kaizen and customer processes. The Kaizen team was assigned the task of exploring quality improvement by focussing on purchasing, continuous improvement, waste reduction, and performance measurement. However the team had made little progress by the end of 1993 and was criticised by workforce representatives on the joint Consultative Committee for the secrecy surrounding their operation.

Finally, in late 1992 management developed an Auto Electrical Supplier Quality Assurance Policy for all suppliers not already covered by the PMV ‘supplier quality assurance programs’. In this way the company hoped to improve the quality of inputs. However such improvements were limited given the minimal local sourcing of raw materials and components.

**Employee Related Change – Production**

The establishment of the Quality Council was followed by several changes affecting employees. However, as will be shown, these changes did not fundamentally change employee roles.

First, in 1990 eight process workers were trained and reclassified to process quality control positions in the Plant. Their role was to continually inspect the process and report directly to the Production Manager. However the outcome from this initiative was limited because it was so narrowly focussed. By 1992 it was recognised that further action to involve employees was needed.

Second, again in 1990 process workers were instructed to initial all their work to assist lot traceability in order to source quality problems. This initiative was not well received by employees who saw it as means for managers to place the blame for quality problems on employees without changing employee ability to reject poor
inputs. An example of this problem was given by employees during a Focus Group as summarised below:

Workers in the gluing section maintained they could tell from the colour of a lamp delivered to them whether it is likely to crack during the gluing process. However supervisors ignore their concerns and they are told to just complete the task. When the lamp subsequently breaks during the gluing process workers are blamed. Workers claimed that initialling the product would only make them more vulnerable (Focus Group September 12 1991).

Third, the Quality-Engineering Department trained Plant employees in Statistical Process Control techniques (SPC). The training was computer-based using laser medium technology. This enabled groups of 20 operators to watch a supervisor interact with the computer on a scheduled one-hour per fortnight. However this style of training meant workers did not get the opportunity to interact directly with the computer which resulted in the fact a year later few employees could even remember having participated in the training (Focus Group August 28 & September 12 1991).

Fourth, despite discussions in October 1991 between managers from Auto Electrical and Nissan to establish ‘Nissan Quality Teams’ within the company to explore Nissan specific quality problems, this was not proceeded with after Nissan decided to cease local production. However in October 1992 a ‘Kaizen’ team was established in the Plant under the leadership of a supervisor trained in the Nissan process. The team met weekly for one hour over nine weeks to obtain suggestions “for improvement on the floor by people actually working there” (AE CSD 1993). Recommendations from the team were made to a meeting of Directors in December 1992 followed by a presentation to the whole workforce in February 1993. This quality improvement team process was considered successful by management and in 1993 it was extended to a training program in Kaizen techniques for the entire workforce (Long 1993). However, within a few weeks of the training there was growing resentment to these Groups among employees as any suggestions for change were taken by management without any formal process to recognise worker input (Workforce Representatives July 20 1993).
Employee Related Change – Specialists

Between 1992 and 1993 63 specialists were trained in Failure Mode and Effect Analysis (FMEA) and Eight-Discipline problem solving techniques (8D) by the Federation of Automotive Products Manufacturers (FAPM) (AE CSD 1992d). Following this training several 8D Cross Functional teams of Engineering and Sales staff were formed to “make overall preparations for the manufacture of products needed to satisfy specific customer contracts” (Director Corporate Services June 15 1993).

In summary by 1993 Auto Electrical had introduced a number of changes under its Quality Management reform process. The outcomes of these changes, however, are subject to interpretation. The Manager Quality Assurance claimed the changes had resulted in significant reductions in rework, stocks, lead-time, machine down-time, scrap, absenteeism, and warranty payments and customer complaints (Manager Quality Assurance July 20 1993). He also claimed improvements in delivery performance and in after-sales service. However, apart from traditional measures of customer complaints, there was no established means to measure quality improvements and thus to support this statement. On the other hand employees claimed improvements were more technical than process related.

In terms of the issue of interest to this thesis, workforce participation associated with quality management reform was introduced, albeit in a limited form. Table 5.3 presents a summary of workforce participation introduced under quality management reform.
It is clear there was an attempt to involve workers in change associated with quality management reform. However such involvement was limited, confined principally to improving communication and training. Given this limited worker role the question becomes - how effective was this form of participation in assisting workplace reform? This will be pursued following discussion upon changes associated with the other two reform processes.

### Institutional Workplace Reform

Auto Electrical was characterised in Chapter Four as having an adversarial industrial relations culture associated with high union membership, multiple unions protecting strictly demarcated jobs and strong representation from full-time union officials. In response, management had established a strong relationship with the Metal Trades Industry Association (MTIA) through the representation of its Managing Director on the Board of Directors of the MTIA (Managing Director August 1 1992). This resulted in a traditional collective bargaining process. This industrial relations culture restricted acceptance by either management or unions of productivity bargaining and resulted in limited gains from the institutional reform process as shown in Table 5.4. Several wage agreements were made between 1987 and 1992 but none of these agreements were presented to the Industrial Relations Commission for ratification. The following section summarises the principal changes negotiated as part of the institutional workplace reform process.
### Table 5.4
Auto Electrical
Institutional Workplace Reforms
1987-1992

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>TWO TIER 1987</th>
<th>AWARD RESTRUCTURE 1989</th>
<th>ENTERPRISE AGREEMENT (1) 1991</th>
<th>ENTERPRISE AGREEMENT (2) 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>payment by Electronic Funds Transfer</td>
<td>wage increase - $10 plus 4%</td>
<td>wage increase – 3% plus $10</td>
<td>wage increase – 4.5% plus 4.5%</td>
<td>wage increase – 4%</td>
</tr>
<tr>
<td>protective clothing</td>
<td>no reclassification</td>
<td>Rostered-day-off restructure</td>
<td>reconfirm general commitment</td>
<td></td>
</tr>
<tr>
<td>Rostered-day-off flexibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dispute avoidance</td>
<td>stand-downs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>minor task changes</td>
<td>no change</td>
<td>no change</td>
<td>no change</td>
</tr>
</tbody>
</table>

### Two Tier

The first agreement was negotiated in 1987 separately for each union. Negotiations took place between the Corporate Director, the Manager Personnel and Industrial Relations, and full-time union officials from each of the major unions (Director Corporate Services September 15 1992). The agreement included monthly wage payments to be made by Electronics Funds Transfer (EFT) and a commitment to commence discussions on a procedure for dispute avoidance, both of which were common to other such agreements within the industry. Company specific agreed changes were limited as itemised below:

- increased flexibility in the scheduling of Rostered-Days-Off (RDOs)
- a reduction in the provision of protective clothing to essential or agreed situations
- minor changes to the tasks undertaken by process workers to enable measurement against quality standards
- elimination of wash up time for most employees
- agreement to work the production lines as required in case of stands down (AE & FMWU, AMWU, ADSTE, ASE 1987).

None of these changes were aimed at significant productivity and efficiency improvement. The Director Corporate Services claimed, however, the experience of these negotiations influenced the decision in 1989 to establish a joint Consultative Committee of management and union representatives (Director Corporate Services September 15 1992). The principal management aim for this Committee was to develop greater employee commitment to the company.
Award Restructuring

The second change introduced skill base reclassifications arising from restructuring of the Metal Industry Award. Auto Electrical treated the implementation of this change simply as an administrative name change with no skills audit undertaken to identify skills held and/or used by employees in excess of those related to existing tasks. Employees, on the other hand, believed they did have other skills that could have been used for reclassifications. This is demonstrated by a sample of employee responses to the question:

‘What skills do you have you do not use at work at present but feel you could use?’

design, drawing, computer, language, teaching, communication, process analysis, problem solving, mathematics, machining, moulding, mechanical, market research, driving, forklift driving, planning, accounts, fitting and turning, electronic assembly, robot programming, time management, negotiation, conflict resolution (Focus Groups August 28 & September 12 1991).

This suggests a broad spectrum of unrecognised and untapped skill potential within the company. The lack of managerial interest in the opportunity for reclassification caused worker resentment in that it reduced their opportunity for career advance. That workers were interested in promotion is demonstrated by typical positive responses as set out below to the question:

‘Is promotion desirable, and if so, why is it desirable?’

❖ more interesting work with greater variety
❖ challenge which allowed you to prove yourself and gain self satisfaction
❖ greater responsibility
❖ more money
❖ worker knows best
❖ power (Focus Groups August 28 & September 12 1991).

This suggests employees saw promotion as the means to a more enjoyable worklife with greater financial rewards. Employees showed their frustration to management’s limited application of the new skill based classifications by their participation in two nation-wide stoppages in June 1989 and February 1990. Although these stoppages were part of an industry wide campaign, the resentment of employees was shown by the typical employee response as shown below to the question:

‘What training-career prospects exist in the company?’:

❖ there is little or no career prospects for process workers and only limited promotion prospects to leading hand positions
most process workers are still doing the same job for which they had been originally employed (Focus Groups August 28 & September 12 1991). By these responses employees demonstrated their disillusionment at the lack of company attention to developing career opportunities for process workers.

Thus implementation of the new Metal Industry Award AT Auto Electrical resulted in little immediate change for workers. The only real change was the decision by management to restructure the existing Consultative Committee to include more employee representatives to try to increase its effectiveness in identifying opportunities for future productivity improvements (Director Corporate Services September 15 1992).

**Enterprise Agreement**

In 1991 an Enterprise Agreement was negotiated for the company (AE & FMWU, NUW, MEWU, FIMEE 1991). The Director, Corporate Services explained these negotiations were carried out through a Single Bargaining Unit (SBU) consisting of himself, the Manager P&IR, and seven union representatives. Three full-time union officials assisted four shop stewards on the SBU. He admitted little in the way of productivity improvements was negotiated in exchange for the wage increase of 2.5% from December 1991 (Director Corporate Services September 15 1992). The Agreement included the following:

- morning and afternoon tea breaks to be held within designated crib areas
- extension of core hours of work to all employees
- change to fortnightly pay cycles
- restructuring of RDOs to accommodate a total plant closure on the tenth day in order to try to reduce the stockpiles of unsold finished goods. This required all employees to work additional time each day (AE & FMWU, NUW, MEWU, FIMEE 1991).

He claimed this was not due to union recalcitrance but rather to lack of management suggestions for change. He further stated following the agreement poor management planning in the implementation of these changes reduced, indeed in some cases removed, productivity improvements. He cited the example of poor production scheduling which removed cost saving opportunities from the proposed scheduling of a nine-day-month:

Departmental managers scheduled work on the tenth (RDO) day. This meant not only were the expected cost reductions from a total plant close-down reduced, but labour costs were
actually increased by the necessity of paying overtime to workers rostered to work on their
RDO (Director Corporate Services September 15 1992).
The final change negotiated under the institutional workplace reform process was the
Enterprise Agreement reached in 1993. Again negotiations for this Agreement
followed the model of earlier bargaining with both full-time union representatives and
shop stewards negotiating with the Corporate Affairs Director and Personnel and
Industrial Relations Manager. There were no formal links between the SBU and the
joint Consultative Committee and no suggestions for productivity improvements from
the committee, although informal links existed through joint membership of the shop
stewards on both committees. The Agreement again resulted in limited productivity
and efficiency improvements. Indeed the agreement merely restated the joint
commitment to consider further changes to specified items including:

- reorganisation of some departments to achieve better ways of working and improved efficiencies
- rationalisation of departments for improved efficiencies
- relocation of departments with employees performing different work or working in different departments

A vague commitment by the unions on behalf of employees to continuous
improvement, consultation, a stable industrial relations climate, skills and training,
and further productivity improvement within the company, was also included (AE &
FMWU, NUW, MEWU, FIMEE, FCU 1993).

Thus, despite a verbal commitment to productivity improvements by both parties as
part of institutional workplace reform, little practical change was realised. What then
can be said of workforce participation associated with institutional workplace reform?
Table 5.5 provides a summary of such workforce participation.

<table>
<thead>
<tr>
<th>Issues</th>
<th>Two Tier 1987</th>
<th>Award Restructure 1989</th>
<th>Enterprise Agreements 1991 and 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>collective bargaining – each separate union Consultative Committee</td>
<td>Consultative Committee</td>
<td>collective bargaining through a Single Bargaining Unit</td>
</tr>
</tbody>
</table>

Table 5.5

Auto Electrical
Workforce Participation and Institutional Workplace Reform
The negotiation of enterprise based agreements relied upon traditional collective bargaining by local shop stewards supported by full-time union officials. There was, however, an agreement to establish a company wide joint Consultative Committee, and thus to increase the extent of enterprise representative workforce participation. The question therefore becomes – how effective was this Consultative Committee in assisting workplace change? Before exploring this question implementation of change under the third workplace change process will be explored.

Best Practice Reform

Auto Electrical showed interest in the principles associated with best practice reform in 1989 when the Managing Director of the company participated in an automotive industry study tour of lean production principles in the USA (Managing Director August 1 1992). However there is no indication of any change for the company resulting from this tour. This is interesting given employees and managers during Focus Group sessions easily identified a broad span of suggestions normally associated with conventional content of best practice. Thus the following responses were typical of answer given to the question:

‘What should be included in a plan to make the company a world competitive export company?’:

- improve quality
- reduce cost
- improve efficiency
- find markets overseas
- diversify domestic lighting, consoles, wheel trims)
- improve planning
- better interaction between workers and capital
- supply on time
- update technology
- improve skills
- better interaction between department
- teamwork
- design for manufacturability
- reduce inventory
- no rejects, reduce waste
- improve morale
- better transport of finished products
- improve quality of inputs
- improve communication
- better management-workforce relations (Focus Groups August 19 & September 5 1991).

However, it was not until 1992 company management developed a best practice mission:
We design, manufacture, and trade the Auto Electrical range of automotive products and high value added plastic mouldings for the Australian-Pacific region (Consultant Report 1992).

The mission was further clarified by an aim for the business:

to be a reliable long term vendor to the automotive industry producing profitable, best products of world best quality, timely delivery and at competitive prices (Consultant Report 1992).

However the mission had little impact and it was not even communicated to employees. Instead, in keeping with the managerial decision making process, three Project Teams of managers were established to explore issues relevant to best practice. The teams had no formal aims or objectives, and no formal reporting mechanisms (Director Corporate Services June 15 1993). Indeed requests by workforce representatives on the Consultative committee for information on the Mission and the findings of these Teams was first ignored and then responded to in a perfunctory manner (Workforce Representatives July 20 1993).

Thus, as shown in Table 5.6, there was limited company activity in terms of the best practice framework identified by Rimmer et al (1996) directed towards best practice during the time under review.

<table>
<thead>
<tr>
<th>GOALS</th>
<th>CHANGE</th>
<th>WORKFORCE PARTICIPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>strategy</td>
<td>limited strategy, driven by single (cost) factor</td>
<td>none</td>
</tr>
<tr>
<td>OPERATIONAL PRACTICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>organisational structures</td>
<td>no active encouragement of a team ethos</td>
<td>none</td>
</tr>
<tr>
<td>technology</td>
<td>significant investment in last five to ten years – ongoing</td>
<td>none</td>
</tr>
<tr>
<td>external relations</td>
<td>driven by competitive considerations</td>
<td>none</td>
</tr>
<tr>
<td>process improvement techniques</td>
<td>primarily framework or concept-driven</td>
<td>training and Kaizen groups</td>
</tr>
<tr>
<td>people management</td>
<td>ad hoc approach with no guiding philosophy</td>
<td>collective bargaining through unions</td>
</tr>
<tr>
<td>INFORMATION ENABLERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>measurement and control systems</td>
<td>limited mainly to macro accounting and financial data</td>
<td>none</td>
</tr>
<tr>
<td>CULTURAL ENABLERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>change leadership</td>
<td>no obvious change leadership</td>
<td>none</td>
</tr>
<tr>
<td>empowerment</td>
<td>direct employees have no control over daily work</td>
<td>none</td>
</tr>
</tbody>
</table>

Table 5.6
There was no corporate strategy until 1993. Even when a corporate strategy was
determined it was driven by a single cost reduction factor. There was no change to
operation structures and no active encouragement of teams. There was little attempt
to use the ‘expertise’ of workers, with work remaining narrowly task-based. Process
improvement was primarily framework driven, with principal emphasis being on
technology-led improvements. People management was ad hoc, with no defined
human resource strategy and industrial relations defined by the traditional collective
bargaining process. Measurement and control systems were confined to traditional
macro-accounting and financial data. Finally there was no obvious change leadership,
and employees had no control over their daily work. In these circumstances
workforce participation remained limited to collective bargaining by full-time union
officials.

**Workforce Participation**

The discussion of workplace reform processes has already introduced the fact
workforce participation was associated with both quality management and
institutional workplace reform. In this section a closer look is taken at the substance
of workforce participation. Workforce participation introduced as part of workplace
reform in Auto Electrical can be divided into direct and representative participation.
However in both cases it remained an addition to, rather than a replacement for,
traditional managerial decision making and collective bargaining processes.

**Direct Workforce Participation:**

Direct workforce participation by individual employees at Auto Electrical was limited
to increasing one-way information from management to employees, training
employees in quality improvement techniques, increasing individual employee
responsibility for quality, and establishment of some work area quality improvement
teams. The question thus becomes, how effective was this form of participation in
introducing change?
Employees were willing to be more directly involved in quality issues as indicated by typical employee responses to the question:

‘How could the quality of product be improved?’:
- more group discussions
- involve employees from the start
- more feedback
- reduce language barriers
- more teamwork
- more individual responsibility
- greater management appreciation of employee input
- more training (Focus Groups August 28 & September 12 1991).

By these responses employees identified the need for improved communication and training before they could participate in quality improvement. However, opportunities for employees to increase their involvement were limited. First the newly established Quality Council retained its managerial hierarchy (Manager Quality Assurance July 20 1993). Indeed employees complained managers were unable to “develop consensus among themselves”, much less to communicate effectively with the workforce (Focus Group August 19 1991).

Despite training of all Plant employees in quality problem identification and solution there was no accompanying change to the production process to enable employees to use these techniques. Employees continued to perform task-specific jobs (Focus Group August 28 & September 12 1991). Indeed employees complained when they made suggestions for change management took little notice “management refers to us as experts then ignores our expertise” (Focus Group August 19 1991). This led to problems not being identified until customers complained. An example given in a Focus Group is summarised below:

The customer, Ford, notified the Sales & Customer Service Division of a product quality problem. Despite meetings between Ford engineers and engineers from Auto Electrical the problem could not be resolved. By chance it came to the notice of a Plant employee who had, two weeks previously, told the supervisor of the problem during the assembly of the product (Focus Group September 5 1991).

One process worker summarised the management attitude as “management is concerned with making a quality product, but do not concern themselves sufficiently with treating the workers in a quality manner” (Focus Group September 5 1991). Indeed employees feared management retribution if they contributed a contrary view to managements’. This was evident in the following responses to the question:

132
'If consultation is to work what changes will need to be made to the way managers and workers act and the skills they have?'

- workers are scared of management because there is no climate of friendship developed
- workers fear their ideas will not be taken up
- workers fear mistakes
- workers need to be treated with respect by management
- workers need to overcome fear of job loss if people speak of problems
- managers need to remove do-as-I-say, not as-I-do
- managers need to remove secrets
- managers need to appreciate work well done
- if discussion is made with management, they should consider our view
- management needs to develop the ability to instruct rather than order
- management needs to speak to workers and not ignore them
- management needs to be more receptive to suggestions/problems
- management needs to understand workers know about problems from hands-on experience
- managers need to tell the workers the reasons for decisions
- managers need feedback from employees
- managers should stop yelling if people don’t understand
- management should talk with people not at them
- workers need to be more involved in the company and be informed of the long-term plan
- managers should not ridicule workers
- workers need truthful and consistent information
- workers need to improve their English language skills (Focus Groups August 28 & September 12 1991)

Through these responses employees demonstrated both a fear of management response to their suggestions for change and a resentment that no attention was given to their knowledge of the production process and associated quality problems. The Kaizen teams established in 1993 somewhat reversed this situation as several suggestions for change made by Plant employees were implemented. This included:

- a reduction of the ‘Front Turn Signal Line’ from 15 metres to 4.3 metres
- Just-in-Time principles introduced by changing the configuration of workstations
- work-in-progress improved 100%
- stress on both the operators and the line flow removed
- housekeeping, improved by 100%
- productivity improved by 36% (AE Corporate Services 1993).

Furthermore employee members of the team found management to be supportive of their efforts:

We found management and supervisors are as concerned with problem-solving and improvements on line as we operators….We learned to work as a team, listen to each other and gained enormously in self-confidence when the time came to present our finished product (AE Corporate Services 1993).

However, despite a training program for all employees in kaizen techniques, the lack of a formal process to extend this team concept throughout the plant led to employee
complaints that the Kaizen groups were too narrowly focussed. For example workforce representatives stated:

- Kaizen has a narrow product related focus
- it is difficult to establish cross-departmental teams
- teams are ‘adhoc’ which makes communication of activities of the various teams difficult to convey
- teams lack any decision-making power as there is no formal reporting mechanism from the teams to any decision-making body other than their immediate managers (Workforce Representatives July 20 1993).

These responses suggest that a more inclusive work reorganisation was needed. Plant employee frustration was further increased by their exclusion from the ‘8D Cross Functional teams’ of specialists. On the other hand, their exclusion from these teams meant that discussed of improvements was confined to technical quality problems rather than process problems. This is demonstrated by a survey of typical issues discussed in 8D teams as follows:

- handling and storage of hazardous materials
- poor adhesion of metallizing process
- variations in weight of Hot-Melt-Glue dispensing by robots
- draft specifications of Self-Adhesive Decals for headlamps
- unpredictable reflectivity from Reflex Reflectors
- poor paint adhesion
- electrical failure of headlamp
- surface damage to lens
- handling of reflectors
- condensation on headlamps

There was no mention in these reports of how these technical problems may be reduced or removed by work reorganisation.

In summary, as shown in Table 5.7 workforce participation introduced under quality management reform at Auto Electrical was limited.
Table 5.7
Auto Electrical
Direct Workforce Participation

<table>
<thead>
<tr>
<th>Methods of Workforce Participation</th>
<th>Extent of Workforce Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>information sharing</td>
<td>one way communication, management to workforce</td>
</tr>
<tr>
<td>training</td>
<td>quality specialists and workers immediately affected by quality problem, until 1993</td>
</tr>
<tr>
<td>work reorganisation</td>
<td>no supportive work organisational changes</td>
</tr>
<tr>
<td></td>
<td>participation limited to the eight newly promoted quality controllers</td>
</tr>
<tr>
<td></td>
<td>process workers limited to tasks</td>
</tr>
<tr>
<td></td>
<td>no work reorganisation to support training</td>
</tr>
</tbody>
</table>

Quality improvement remained the responsibility of technical experts in the Quality Department with assistance from a few process workers upskilled to quality control functions. Work remained task-based with no opportunity for workers to use their quality improvement techniques on a continuous basis. Quality remained a post-production control activity by ‘quality experts’ rather than a continuous improvement process by workers. Management retained all decision-making power despite the implementation of shop-floor quality improvement teams.

**Representative Workforce Participation**

Representation participation had a much greater impact on Auto Electrical during the period under review than did direct participation. Representative participation was introduced into Auto Electrical in the form of Consultative Committees established to assist institutional workplace reform. The history of these committees in Auto Electrical demonstrates the many difficulties and decisions this process encountered in trying to work effectively in a company in which management was the traditional sole decision maker. Difficulties arose from presumptions made by both managers and employees. The Consultative Committees at Auto Electoral went through a number of developmental stages as these difficulties emerged. The initial Consultative Committee was established in 1987 following negotiations over the second tier wage round. It fell into disuse and was reformed in 1992 as part of company implementation of the restructured Metal Industry Award. This produced two Committees - one on which union members of the workforce were represented and
one representing non-union employees. These two committees were again restructured into one joint Consultative Committee in 1993. The following section outlines the experience of these committees.

Central Consultative Committee 1989 –1991

In 1989 the Auto Electrical Central Consultative Committee (CCC 1989) was established. The committee was envisaged as a tool of management to increase communication and improve problem solving. In a Discussion Paper the Corporate Director stated the company is:

committed to the promotion of management led consultation with employees for the purpose of communication, joint problem solving and to keep all members of the company abreast with progress (AE Corporate Director 1988).

In order to achieve these aims it was believed employees would work better if they understood the bigger picture:

It is the company's view that employees will perform better when they understand that management will keep them informed on important issues and where their opinions and expertise are sought in resolving problems (AE Corporate Director 1988).

Accordingly, the company aimed to:

enlist the constructive involvement of employees, to promote a good working environment and to improve productivity, to achieve a high standard of competitiveness (AE Corporate Director 1988).

From the start it was clearly established the Committee would be advisory to management rather than a decision-making body:

The Consultative Committee is neither a decision-making not a negotiating body in so far as matters normally considered to be those of an industrial relations. It may be looked upon as an important advisory body....the final decision to proceed or not to proceed with the course of action will rest with the company (AE Corporate Director 1988).

Employees were encouraged to support the committee with “understanding, knowledge, co-operation and enthusiasm”, as an aid to “managing the business and improving the quality of decisions and an overall commitment to the company” (AE Corporate Director 1988). Thus it is clear that the purpose of the committee was a one-sided employee commitment to company goals. Employee goals of improved working environment were seen as the means to ensure employee commitment to the company, not as an end in themselves. There was no intent to increase employee
participation in managerial decision-making, but only to offer the opportunity for consultation.

It was decided there should be an equal number of managers and employee representatives on the committee. The first committee consisted of six managers (three Directors - Corporate Affairs, ER&D, and Plant, and three managers - Finance and two from MP&S), and seven shop stewards. The terms of reference developed by management covered a broad spectrum of issues including:

- new systems
- technological change
- training and development
- affirmative action
- plant efficiency
- matters of significant importance to workers (AE CCC 1988).

This suggests a broad range of issues for discussion including basic employee, production and strategy issues. Table 5.8 summarises the form of employee representation proposed using the framework introduced in Chapter Two.

<table>
<thead>
<tr>
<th>Form of involvement</th>
<th>representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level at which involvement takes place</td>
<td>company</td>
</tr>
<tr>
<td>Type of involvement</td>
<td>consultation</td>
</tr>
<tr>
<td>Subject matter</td>
<td>list of topics</td>
</tr>
</tbody>
</table>

However the experience of the committee is more confined. The committee began enthusiastically, meeting bi-monthly throughout 1989. However meetings declined to quarterly in 1990, with no further meetings after March 1991. Issues discussed within the committee are summarised in Table 5.9.
Table 5.9
Auto Electrical
Central Consultative Committee 1989
Management Presentations

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic employee</td>
<td>translation of Metal Industry Award - Manager Personnel and Industrial Relations</td>
<td>May 1989-March 1991</td>
</tr>
<tr>
<td></td>
<td>superannuation – Director CSD</td>
<td>June-December 1990, March 1991</td>
</tr>
<tr>
<td></td>
<td>recycling and environment policy – Health and Safety Manager</td>
<td>April 1989, December 1990</td>
</tr>
<tr>
<td></td>
<td>relocation of personnel – Director CSD</td>
<td>August, October 1989</td>
</tr>
<tr>
<td></td>
<td>in-house payroll system and new time-keeping system – Director CSD</td>
<td>June, December 1990</td>
</tr>
<tr>
<td></td>
<td>vacancies internal applications- Manager Personnel and Industrial Relations</td>
<td>March 1991</td>
</tr>
<tr>
<td>Production</td>
<td>Productivity improvement-Plant Director</td>
<td>May 1991</td>
</tr>
<tr>
<td></td>
<td>bar coding – Manager MP&amp; S</td>
<td>October 1989</td>
</tr>
</tbody>
</table>


It is apparent management treated the committee primarily as an information exchange. Various managers, principally the Corporate Services Director, informed the meeting of new policies and practice developed by department and of new technology being introduced. However there was no expectation of a response from employee representatives, and little or no consultation on these changes. There were several sub-committees established to collect information on specific issues and to make recommendations to the Consultative Committee as shown in Table 5.10.

Table 5.10
Auto Electrical
Central Consultative Committee 1989
Sub-Committees

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>OUTCOME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>child care</td>
<td>unresolved</td>
<td>June 1989</td>
</tr>
</tbody>
</table>


However these sub-committees were confined to basic employee issues. Of 14 issues discussed in the Consultative Committee between 1989 and 1991, 12 were confined to minor housekeeping, human resource, and industrial relations matters. There was no reference to business strategy or financial direction. In response workforce
representatives limited their requests for information to relatively minor housekeeping issues such as:

- the provision of a bus for transport to and from work
- security in the car park
- the possible replacement of ‘musak’ by radio broadcasts in the production area (AE CCC Minutes 1989).

Further, the sub-committees were relatively ineffective, taking months to make any recommendations.

A review of the committee in 1991 revealed a number of employee concerns. First, employee representatives complained subject matter was too narrow, lacked real substance, and was a one-way information flow from management. Employee representatives stated they had expected the Consultative Committee to be a consultative group whereby they would have the opportunity of expressing opinions on and participating in decisions on company plans to introduce changes in its future organisation and operations. In looking back over the work of the Committee, the topics raised by Management’ have been few and, in most cases, did not require debate or decisions because the latter had already been taken (AE CCCA Report 1991).

Employees were thus openly frustrated at managements' limited interest in their views and at being informed of change only after management had taken decisions.

Second, employees complained of poor communication between committee representatives and themselves. Although Minutes were placed on several notice boards for employee perusal there were no formal report-back sessions to the workforce, and no canvassing of workforce opinion on issues. This resulted in low levels of trust between employee representatives and employees as shown in typical responses as to the question:

‘If consultation is to work within Auto Electrical what changes need to be made to the role of the Consultative Committee?’

- workforce suggestions need to be more effectively canvassed
- workers ideas need to be acknowledged and respected even if they appear minor
- workforce representatives need to know what goes on in each department
- information back to the workforce needs to be both more frequent and more accurate
- information needs to be translated for the workforce in appropriate languages
- management needs to give reasons for its decisions
- workforce representative need to be assured they will not be victimised or ridiculed
- discussion needs to be followed by action (Focus Groups August 28 & September 12 1991).
Thus employees not only criticised management but also their representatives. This negative response resulted in management deciding to restructure the Committee to have an effective consultative process by which to implement the newly restructured Metal Industry Award.

The first step in this process was a management decision, endorsed by the union, to hold company-wide information sessions on the implications of the newly restructured award for management and employees. A consultant recognised in the MTIA-MTFU Award Restructuring Implementation Agreement (Workplace Resource Centre Pty Ltd) was employed for this task. It was agreed by management, unions and participants, that the training had been effective in communicating the importance of having a well-functioning Consultative Committee to explore workplace change proposals. Indeed the training was so effective it resulted in a delay in establishment of the Consultative Committee due to non-union members in specialist departments wanting to be included. This was opposed by union members who saw such employees as de-facto management representatives, with their inclusion in the committee making the balance between management and employee representative uneven (Workforce Representatives July 20 1993). This matter was only resolved by establishing two committees – Central Consultative Committee A (CCCA 1992) which included union representatives and Central Consultative Committee B (CCCB 1992) which included non-union representatives.

This experience further illustrates the division between Plant employees and specialists that characterised the company culture and served to limit good communication. It is of interest to this thesis that it is this problem that had led to the recognition of the need for an integrated best practice reform process. This potential was not recognised by Auto Air during the time under review.

**Central Consultative Committee A (CCCA 1992)**
**Central Consultative Committee B, (CCCB 1992)**

The CCCA 1992 was established in April 1992, followed by the CCCB 1992 in May that same year. Each committee was made up of equal numbers of management and employee representatives. Both committees functioned under similar Constitutions
and both discussed similar issues, accordingly the following focuses on the activities of one committee - the union-related Consultative Committee (CCCA).

The first meeting of CCCA 1992 was designed as a two-day workshop facilitated by the same mutually agreed consultant who had run the information sessions. A number of potential problems concerning the way the members of the committee viewed consultation became evident during this training (Workplace Resource Centre Pty Ltd 1992).

First, management representatives found the time taken to reach group consensus frustrating. At one stage a Director resorted to a quantitative approach to resolve a group attempt at reaching consensus. When employee representatives objected to this approach he refused to accept their complaints as legitimate. Second, management representatives sought to exclude full-time union officials from the committee by not providing the opportunity for ‘observers’ into the draft Constitution of the Committee. This matter remained unresolved at the conclusion of the training. Third, employee representatives did not feel they had power within the committee because of the senior status of management representatives. Several worker representatives complained that they don’t talk like managers. Finally, shop steward representatives on the committee were concerned at the election of lack of union training of non shop-steward employees elected to the committee. This led to a managerial response as the aim of the committee was to consult, there was no need for employee representatives to be influenced by the union (Workplace Resource Centre Pty Ltd 1992). These examples demonstrate managers had no intention of sharing any power, while employee representatives were both fearful of their knowledge compared to managers and frustrated by managerial intent.

The workshop did, however, produce a Draft Constitution to be discussed with employees and management before endorsement. This showed the committee was trying to overcome its earlier communication problems with the broader workforce. The Terms of Reference in the draft constitution broadened the role of the committee from a one-sided benefit to the company, to mutual benefit for both the company and the workforce. The proposed aim of the committee was:
To ensure the survival and future success of Auto Electrical and its employees by promoting-

a) True consultative processes and close co-operation between management and employees

b) The principles of, and commitment to, award restructuring and structural efficiency by covering such factors as:

organisational structure, company policy and procedure changes, company future plans,
improvements in efficiency and productivity, significant changes in technology,
equipment and work organisation, quality, training, career paths and skills of all employees, communication, work environment (AE CCCA 1992 Draft Constitution).

However the Constitution was silent on the question of the power of the committee, a factor that suggests mutual acceptance of the limited advisory power of the committee. The experience of the committee was, however, not significantly different from the earlier committee as explained below. As shown in Figure 5.2, once again the committee began enthusiastically meeting monthly in 1992.

![Figure 5.2](image_url)

Source: AE CC 1989-1993 Minutes

Less meetings of the whole committee were held in 1993, however the establishment of a number of sub-committees as shown in Figure 5.3 balanced this. Issue specific sub-committees were established to explore issues of ‘good housekeeping’, ‘acknowledgement of achievement’, improved communication, training, absenteeism, company library, and future holidays. The establishment of these sub-committees suggests there was more two-way discussion in smaller joint groups than in the larger Consultative Committee.
Subject matter discussed in the committee and in sub-committees was, however, still dominated by basic employee issues as shown by in Table 5.11.

### Table 5.11

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Single Bargaining Unit negotiations</td>
<td>October 1992</td>
</tr>
<tr>
<td>Employee</td>
<td>plant shut-down</td>
<td>May, October, December 1992</td>
</tr>
<tr>
<td></td>
<td>confidentiality agreements</td>
<td>April and May 1992</td>
</tr>
<tr>
<td></td>
<td>student employed</td>
<td>December 1992</td>
</tr>
<tr>
<td></td>
<td>superannuation</td>
<td>March 1991, May 1993</td>
</tr>
<tr>
<td></td>
<td>multi-cultural day, company open day</td>
<td>May 1992, September 1992</td>
</tr>
<tr>
<td></td>
<td>social club</td>
<td>December 1992</td>
</tr>
<tr>
<td>Production</td>
<td>restructure of finance/administration</td>
<td>April 1992</td>
</tr>
<tr>
<td>Strategic</td>
<td>future of company</td>
<td>March, October 1992</td>
</tr>
</tbody>
</table>

Source: AE CC 1992 Minutes

Typical basic employee issues mentioned for discussion included - wages and working conditions, confidentiality, employment of students, and superannuation, specific purpose days and the company social club. Only once was a production related issue mentioned by management, and even then it was to inform the committee of a management decision to restructure the finance and administration department. Finally, the general manager did address the committee on the strategic future of the company on two separate occasions, but this was purely to provide information.
The outcomes of this committee were also limited. First, sub-committee deliberations were lengthy with limited outcomes as shown in Table 5.12. The Communications sub-committee took six months to recommend to the Committee two additional notice boards be installed. The Good Housekeeping sub-committee took over a year to recommend the existing occupational health and safety procedure should remain unchanged. The Acknowledgement of Achievement sub-committee took over a year to recommend introduction of a scheme to recognise especial performance and achievements of individuals and groups. Three other sub-committees were still deliberating at the time this research was completed, while the recommendations from the final sub-committee (wages) was rejected by the workforce in November 1993 (AE CCCA 1992-3).

Table 5.12
Auto Electrical Consultative Committee 1992 Sub Committee Recommendations

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>ACTION</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>absenteeism</td>
<td>unresolved</td>
<td></td>
<td>September 1992</td>
</tr>
<tr>
<td>skills audit</td>
<td>unresolved</td>
<td>AMWU withdrawal</td>
<td>July 1992-July1993</td>
</tr>
</tbody>
</table>

Source: AE CCC 1992 Minutes

By October it was obvious the Committee was not meeting expectations of employee representatives and many managers felt frustrated by committee proceedings. In a review of the first six months activities the following problems were identified:

- Agenda’s of both Committees showed little progress. Sub-committees deliberations are lengthy and require broader input
- Employee representatives are concerned at the narrow agenda of the Committees. They cited various major changes decided by management without consultation with the Committee including:
  - introduction of kaizen
  - relocation of mirror welders
  - extension of chanson
  - employee transfers
  - process worker appointments
  - new work process
  - changes to work flow
  - removal of the evacuation alarms
  - introduction of revised evacuation procedures (AE CSD 1992e)
Finally, union representative complained management are the only people with the knowledge of the current state and proposed future for the company of Auto Electrical. They sighted the fact there was no information being provided to the Consultative Committee as to the activities of the management Kaizen Project Teams (AE CSD 1992e).

In summary employee representative complained there was no real consultation. To address these concerns the Review recommended:

- Broadening the agenda items to include discussion of company future plans
- Monthly Management reports to the Committee reviewing activities within department and divisions
- Formal links to be established between the Consultative Committees and the Kaizen Project Teams
- Reduction in the frequency of committee meetings to provide for more relevant dialogue
- Amalgamation of the two Committees (AE CSD 1992e).

In response it was decided to amalgamate the two Consultative Committees.

**Central Consultative Committee 1993 (Combined)**

In February 1993 the two committees merged. Management made some attempt to satisfy employee representative complaints by tabling Reports on a variety of issues as shown in Table 5.13. However these Reports were still principally confined to basic employee issues.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ACTION</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>superannuation</td>
<td>March</td>
</tr>
<tr>
<td></td>
<td>future policies and procedures for training</td>
<td>June</td>
</tr>
<tr>
<td></td>
<td>new medical/first aid procedure employee rehabilitation</td>
<td>June</td>
</tr>
<tr>
<td></td>
<td>employee suggestion schemes</td>
<td>June and July</td>
</tr>
<tr>
<td></td>
<td>employee survey</td>
<td>October, November</td>
</tr>
<tr>
<td>Production</td>
<td>Kaizen</td>
<td>June</td>
</tr>
<tr>
<td></td>
<td>diversification</td>
<td>August</td>
</tr>
<tr>
<td></td>
<td>customer focus</td>
<td>September</td>
</tr>
</tbody>
</table>

Source: AE CCC 1993 Minutes

Employees criticised the Reports for being delivered as a one-way information flow from management to the employee representatives without any attempt to consult
employees. They were also criticised as being limited in content, historical, and superficial rather than strategic. This was interpreted by employee representatives as indicative of reluctance by management to properly inform employees and thus to retain decision-making power (Workforce Representatives July 20 1993). Employee dissatisfaction finally resulted in October in a letter from employee representatives to the Managing Director complaining of lack of managerial commitment to the consultative process. The letter stated:

Some management representatives, we believe, are not committed to consultation. There is a lack of commitment and apathy. The Consultative committee feels management is less responsive in informing us of the more important issues, which affect the whole company. One of our concerns is Management not attending meetings and coming up with excuses and not replacing their absenteeism with alternatives (Employee Representatives AE CC 1993).

Through this letter employees demonstrated that there had been no change in the decision-making process within the company and their participation had been totally undervalued. Employee representatives stated although they accepted the Consultative Committee was not a decision-making body, it should be able to make recommendations. Instead employees complained they feared managerial response to any suggestions for change “non management and employee delegates are scared of retribution and intimidation and so ideas, suggestions and opinions are not voiced” (Employee Representatives AE CC 1993).

Further evidence the Consultative Committee was not meeting employee expectations was given late in 1993 when employee responses to a training audit undertaken by the committee were found to be unreliable because employees overstated their skills because they not trust management to use the results of the training audit properly. Rather they feared they would be used to target employees for redundancy. Consequently employees had exaggerated their skills. Finally, this lack of trust led in November to employee rejection of a committee recommendation to timetable annual leave Periodic Days Off (PDOs) to accommodate production scheduling problems, and in December to the withdrawal of the principal union covering trade and supervisory employees, AMWU, from the committee. This spelt the end of usefulness of the Consultative Committee.
In summary, representative participation was introduced through Consultative Committees established as part of institutional workplace reform. However, as shown in Table 5.14 this form of participation was limited to structural form with little operational significance.

Table 5.14

<table>
<thead>
<tr>
<th>Change</th>
<th>Method of Participation</th>
<th>Extent of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional</td>
<td>collective bargaining</td>
<td>full-time union officials supported by shop stewards</td>
</tr>
<tr>
<td>Consultative Committee</td>
<td>elected representatives</td>
<td>advisory, but limited recommendations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>issues – basic employee, production (information from management)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>workforce rejected recommendations</td>
</tr>
</tbody>
</table>

Traditional management control and decision-making led to a concentration upon one-way information flows from management to employee representatives on issues of basic employee concern. Managerial response to employee complaints that the consultative process was ineffective was superficial. This eventually resulted in employee rejection of the committee. In response full-time union officials continued to control negotiations over wages and working conditions.

**Workplace Reform and Workforce Participation**

It is clear Auto Electrical did undertake all three workplace reform processes - quality management, institutional workplace reform, and best practice, although the latter was hardly evident as more than a new idea. However change introduced under these reform process lacked strategic purpose, was short-lived, limited, and non-cumulative and resulted in little productive improvement. Workforce participation adopted both direct and representative forms as shown in Table 5.15.
Table 5.15

<table>
<thead>
<tr>
<th>Workplace Reform</th>
<th>Direct Participation</th>
<th>Representative Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Management</td>
<td>one-way communication from management to employee</td>
<td>collective bargaining full time union officials</td>
</tr>
<tr>
<td></td>
<td>employees trained but no work reorganisation</td>
<td>consultative committee</td>
</tr>
<tr>
<td></td>
<td>8 process workers trained as quality controllers</td>
<td></td>
</tr>
<tr>
<td>Institutional Workplace</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best Practice</td>
<td>training in Kaizen techniques</td>
<td></td>
</tr>
</tbody>
</table>

However this workforce participative lacked strategic purpose, had limited management commitment, and was more simply managerial response to external pressures from customers, government, and unions. This meant that workforce participation at Auto Electrical was more rhetoric than reality. Without management commitment it failed to provide employee commitment to an integrated platform for productivity improvements.

Conclusion

In the late 1980s and early 1990s Auto Electrical attempted change under each of the workplace reforms under analysis in this thesis. A Quality Management Strategy was adopted in 1988 in response to customer requirements for new procedures to ensure ongoing supplier quality assurance. Negotiations towards enterprise specific productivity improvements began in 1987 in response to decisions of the AIRC. Finally, in 1992 the company began to address the agenda to develop best practise. External pressure from markets, customers, and government largely induced these changes.

What this Chapter has shown is these external pressures for reform failed to induce a corresponding internal commitment to change. Although structures were established to introduce reforms they lacked translation into operation. Managers remained separated into divisions and departments with changes given only cursory attention by any but the introducing division. For example, quality initiatives remained the responsibility of the Quality Department; consultation was regarded as the
responsibility of Corporate Services; while Best Practice was to all intents and purposes an engineering activity. There was no attempt to benefit from the cumulative effects of these reforms.

Given this lack of integration between reform initiatives it is not surprising workforce participation was also limited to a structural form without substance. Direct participation by individual employees was restricted to problem solving on quality issues in temporary teams with activities confined to the immediate work area. Representative participation in Consultative Committee was restricted principally to issues of basic employee concern, with production and strategic issues remaining solely the responsibility of management. Finally, change associated with best practice reform remained principally a managerial activity. In these circumstances minimal long-term improvements were recorded. Experiments in both workplace reform and workforce participation came to be seen as marginal because of poor integration and operation causing management and employees to withdraw their respective commitment to reform.
CHAPTER SIX

AUTO MECHANICAL (I)
Survival Through Global Rationalisation

Introduction

This chapter describes the second case study analysed in this thesis, Auto Mechanical (AM). The format for this chapter is similar to the first case study with a review of the company describing its operations and the pressures upon it in the late 1980s.

Auto Mechanical: Ownership and Corporate Role

Auto Mechanical differs from the first case study outlined in this thesis for two principle reasons. First, in 1990 it implemented a company restructure in accordance with a directive from the American-parent to conform to a global international business rationalisation strategy. Second, market pressures caused the company to rethink its business strategy. However, despite subsequent operational changes, the company remained fundamentally designed according to traditional mass production concepts.

Auto Mechanical was originally established in 1953, as an Australian owned private company servicing the local automotive industry. In the 1960s it was acquired by Wilmot-Breedon, a British company with outlets in many European countries, (Managing Director October 7 1994). In 1979 an American-owned International corporation purchased it, along with the rest of the British owned
group (AMIC 1991). This International Corporation has diverse interests in four core businesses – Automotive, Electronics, Aerospace, and Graphics, with total sales in 1991 totalling US$2.3 billion. Auto Mechanical belongs within the Automotive Operations Group which, in 1991, contributed about 20% of total sales to the International Corporation. This placed the Automotive Operations Group as equal to the Electronics Group in terms of its contribution to the International Corporation. This was less than the Aerospace Group, which contributed 39% of sales, but was greater than the contribution from the Graphics Group which contributed 8% of sales.

Automotive operations include truck, bus and off-highway vehicles. The Wilmot-Breedon purchase added passenger motor vehicles to these larger vehicles. PMV suppliers are located within an Auto Mechanical Group producing various automotive body systems (ABS) such as window regulators, door systems, convertible roof systems. In 1991 this Group contributed 30% of total sales of Automotive Operations. Auto Mechanical in Australia is smallest of all companies within the Auto Mechanical Group, with larger sister plants located in the UK, France and Italy (AMIC 1992).

The value of the company in Australia lies in its access to the protected Australian market and its strategic position close to the South Pacific market. However the relatively small contribution of the company in Australia to the Group partly explains why until 1990 it was largely unaffected by its American acquisition. This was despite a major business rationalisation of European facilities after the American acquisition. This rationalisation occurred as a result of a strategic plan for the International Group by which each Plant would develop a product for which it became the Centre of Expertise. It would then service the rest of Europe with that product. In this way the International Group planned to produce a Total System product, (AMIC 1991; Managing Director October 7 1994).

Initially the only change to the Australian company from the American acquisition was the Australian Board of Directors reported directly to the International
Corporation’s American Board. The company retained the name Wilmot Breedon, it remained focussed on the Australian market, and only 5% of company sales were exported (Managing Director October 7 1994). This changed in 1990 when the company was instructed by its American owner to undertake a similar restructure to the European companies. First, the International Corporation appointed a new Managing Director to replace the Australian Board of Directors. Second, the company name was changed to Auto Mechanical to identify it as belonging to the Auto Mechanical Group. Third, the company was instructed to adopt the Credo of the International Corporation (AMIC 1988). Finally, the company was required to narrow its product range to two products and become a Centre of Expertise in production of an electronically sophisticated motor (AM 1991).

Product

The Managing Director explained that until 1990 Auto Mechanical had produced around 600 mechanical components, ‘anything that goes click clack’, for car bodies and chassis (Managing Director October 27 1992). Such products included window regulators, door latches, door hinges, seat adjustments, suspension systems, sunroofs, bumper-bars, and chrome insignias. The company also produced many of the required sub-components. These mechanical parts complemented the electrical parts produced by another British company, Lucas, for the English PMV producer, Morris (Beruldsen 1989)1. In the late 1970s the British owner, Wilmot-Breedon, acquired a French company producing electric motors for window regulators. This led to the development of various Automotive Body Systems into Body Chassis Systems using the electric motors. Thus the international company diversified into several integrated Total Systems Units (BCSs), (AMIC 1992).

1 In 1984 Lucas merged with Auto Electrical
After 1990 two major changes to product were planned for the company in Australia. First, products supplied by Auto Mechanical were to be reduced to two new Total Systems Units – a Window Regulator System and a Convertible Roof System (both for Ford Australia). The production of door latches (for Nissan) was divested and production of some of the sub-assemblies, for example plating, was outsourced. Second, the company was nominated by the parent Corporation to become a Centre of Expertise in the production of a motor required for the new window-regulator Body Chassis Systems. The motor was initially produced by a sister company in France and exported to Auto Mechanical in Australia. This change would mean that the Australian production of the motor would initially complement, and eventually replace, the near full capacity production of the French sister company. To assist this development the parent company provided access to the Corporation’s Science Centre in the USA and to other companies in the Corporation through Computer Aided Drafting (CAD) and Electronic Data Interchange (EDI). It also provided $2.5 million for the company to develop a computerised production line for window-regulators (AM Managing Director 1992).

The Manager Sales & Engineering explained these product changes had little effect on the distribution between original equipment (OE) and parts and accessories (P&A), with OE contributing 80% of output in dollar terms (Manager Sales & Engineering October 26, 1993). This reflects the concentration of the market in Australian-based PMV assemblers. Auto Mechanical supplies all of Ford Motor Company, Australia’s requirements for window regulators and door latches, and 50% of GMH requirements (the other 50% was lost to German imports in the 1980s). In order to honor existing contracts the company continued to supply, on a batch basis, spare parts for International Trucks, Mitsubishi, and Nissan. Before 1990 exports from Australia were negligible, however the planned growth of the company as a Centre of Expertise for motors provides the opportunity for future export growth.
Market

The Manager Sales & Engineering explained the close physical proximity between Auto Mechanical and its Australian-based customers has contributed to joint research and design of product and to specialised technical after-sales service by Auto Mechanical. In return for this, and for a commitment by the company to supply spare parts for the life of the vehicle plus seven years, PMV assemblers provide costly model specific tooling. This gives Auto Mechanical a considerable cost advantage over its overseas competitors. For example around $1 million is required for the tooling of one set of window regulators. The planned production of new Body Chassis Systems provided the potential to consolidate its close ties to its Australian customers, as well as opportunity for export (Manager Sales & Engineering October 26 1993).

Costs

Auto Mechanical divides its cost into four major areas - materials, capital, labour and overheads. The company imports around half of its raw materials (rubber and plastic). It also imports the costly motors (at $40 each) from its French-based sister company. Accordingly, inventory levels and material costs are high. The implementation of the new product strategy had, by 1992, resulted in a significant reduction in inventory costs from around $3 million in 1989 to around $380,000 in 1992, or nearly 3% of sales (Purchasing & Supply Manager December 15 1992; Financial Controller March 15 1993). In 1992 the breakdown of costs was as shown in Figure 6.1 (AM Finance Department 1992).
Material costs had been reduced to a relative contribution of 24% of total company costs. It was expected this would be further reduced with local production of the motor (AM Finance Department 1992). Capital costs had increased in relative terms to 45% of total company costs, as the new computerised window-regulator line was developed. Capital costs were expected to keep increasing as the company developed its Centre of Expertise capacity. This meant that in relative as well as absolute terms labour costs (especially direct labour costs) had been reduced. In 1992 the direct labour costs of process workers contributed only 8% of overall costs, although total labour costs were increased when indirect labour costs of specialist support employees were added. This added a further 18% to make the total labour contribution of 36% of total costs. This relatively high indirect labour cost was explained by the needs for skilled staff as the company developed its technical expertise. Given these high labour and capitals there was pressure on the company to improve its productivity.

Organisational Structure

The company’s organisational chart (AM Human Resource Department [HRD] 1992a) is presented in Figure 6.2.
A minor restructure in 1990 resulted in the creation of two new departments - Purchasing and Human Resources - and the amalgamation of the Engineering and Sales departments. This meant the company was left with six functionally autonomous departments - Manufacturing, Engineering & Sales, Quality, Finance & Administration, Purchasing and Human Resources, with each department performing a number of diverse functions. Each department was further divided into sub-functions. Formal communication between departments was managed through a computerised management information system (MIS) and a MRPII system. This did little to improve the already strained communication between the physically separated manufacturing and specialist departments (Manager Production December 15 1992).

Employment was unevenly distributed between departments. This is shown in Figure 6.3 (AM HRD 1992b).
In 1992 Manufacturing employed over 70% of the 176 total employees. The next largest department was Engineering & Sales with 18 employees. There were 11 employees in Quality, seven each in Finance and Purchasing, and only three in Human Resources. The 40% decrease in overall employment in 1990 was fairly evenly distributed between departments.

**Corporate Plan**

Until 1990 the company relied upon a comprehensive annual budget plan based on traditional short-term financial considerations (Managing Director October 27 1992). The annual budget used traditional return-on-funds to measure financial performance. There was little emphasis on developing process measurement, although there were plans to introduce Activity Based Cost Accounting in 1995 for each separate activity.
Work Organisation

Manufacturing was separated into two functional groups – Manufacturing Services, which included production engineering and maintenance, and Production, which included production and the toolroom. Professionally qualified engineers in Manufacturing Services were responsible for production planning. Planning was assisted by an MRPII system introduced in 1990, which linked directly to the Purchasing Department. In 1990 the International Corporations’ MRPII system replaced all other methods of inventory management.

Following the appointment in 1986 of a new Production Manager (now Managing Director) the company experimented with a Kanban process whereby materials movement was controlled by a pay-point system using ‘move-tickets’. At the same time Just-in-Time was introduced to reduce inventory holdings. However, these initiatives had failed by the late 1980s. The Managing Director claimed that the initiatives failed because of insufficient workforce training and inadequate consultation with the workforce (Managing Director October 7 1994).

Until 1990 a broad product range of assemblies and sub-assemblies for mechanical components were produced (Production Manager December 15 1992). Production was divided into a Fabrication Shop, a Machine Shop, a Plating Shop, a Zinc and Die-casting shop, a testing area, and customer-based assembly lines for single products. Production occurred on a daily one-shift flow-line basis, although batch assembly was used for parts for superseded vehicle models. Process workers were responsible for production with machines set by trained setters. Technology varied from large machines for cutting, pressing, forming, and welding, raw steel into sub-components such as door locks, window winders, roof rails, levers, brackets and other small part, to small machines for testing, assembling and welding sub-components. The most advanced technology was the Numerically Controlled (NC) testing machines and a welding robot for larger welds.
This production process was described as unproductive for a number of reasons. First, Production was guided by an individual quantity based bonus system. This has resulted in quantity valued over quality and production of stockpiles of poor quality product unable to be sold. Second, the plant was poorly designed with cumbersome internal materials movement because of numerous assemblies and sub-assemblies. Third, there was little communication between largely English speaking managers and principally Macedonian-speaking production workers. This had resulted in Macedonian supervisors, mostly male, having more power than the departmental manager. To rectify these inefficiencies the Production Manager had, in 1988, tried to introduce change. First he tried to remove the quantity based bonus system, but employees resisted this as it had significant wage implications. Second he introduced a Kanban demand-led production process, however poor planning, and inadequate communication, had led to production bottlenecks. Third he tried to reorganise production into cells, but again worker resistance, poor planning and insufficient communication and training had frustrated these changes. Finally he replaced some of the supervisors to reduce the ‘Macedonian Mafia’ (his terminology) but this was resisted by workers. Accordingly in 1990 the initiatives were abandoned (Managing Director October 7 1994).

In the same year the company was told to introduce change to accord with the new international strategy (Managing Director 1990). Between October 1989 and October 1992 Auto Mechanical reduced from 600 to 100 its production of finished parts. The product range was narrowed and sub-component production, such as plating and machining (screw and fastener production), fabrication, zinc and die-casting and painting and decorating, were outsourced (AM 1992a). Despite these changes, the company continued to produce door latches and other components on a batch basis to meet existing contractual obligations to supply PMV customers with model-based spare parts for the life of the model plus seven years.

As a result of the new product strategy two major changes were introduced in the early 1990s. First, production scheduling was more precisely tied into the MRPII
system to ensure outsourced sub-components were ready when required (Director Purchasing December 15 1992). Second, a new computer-operated window regulator line was introduced.

The Manager Production explained that apart from the new computerised line the production process remained essentially unchanged. Production was still separated into a number of functional areas- a blanking, pressing and welding shop (albeit smaller and less diverse), a testing area, and customer-based component production divided into Mechanisms Components Assembly process (continued as an interim measure), Convertible Roof Systems, and a Window Regulator Assembly Line. A section of the factory left vacant by the outsourcing process was set aside for future location of the motor assembly lines (Manager Production December 15 1992).

The Mechanisms Component Assembly produces three product types. First, various components for truck, utility, and van spare parts, are batch assembled two to three days per month. Second, GMH automatic gear change is produced on a flow basis through a six stage (station) assembly process. Third, Ford door handles are produced on a flow-line assembly split into two parallel processes (required because the tooling for the front and back doors is not interchangeable) through 11 stations determined by the capability of the machinery.

In Convertible Roof Assembly production occurs through a six-station process. Components are assembled, moved by robot slider to a welding robot, passed on to spot welding for more intricate welds and to add rails, returned to the welding robot, then passed to the grinding machine, before being sent outside the factory for further processing. Outsourced sub-components are returned for assembly of handles, hooks and plastic and welding assembly of the convertible roof.

In 1991 a computer operated Window Regulator Line was introduced. The production of the automated line was funded by the parent company and designed in Australia with assistance from sister companies within the International Corporation. The continuous rolling conveyor moves assembly platens through 20 workstations
taking a total of eight minutes. Six stations are fully automated with all fixtures easily and quickly changeable. Production workers trained in all processes operate the other 16 stations the skills for performing quality checks. Program Controllers have responsibility for the operation for platens, combining interlocks, and any variation to workflow. The process is able to handle a number of different models, with die changes performed by the operators (Production Manager December 15 1992). A natural work team was created around this process with operators expected to accept greater responsibility for quality outcomes. However, although the line is technologically sophisticated, it retains the mass production concept of moving sub-components through task specific stations requiring only semi-skilled repetitive work. During the time this research was underway the natural work team had not demonstrated its ability to operate as a self-managing team.

Thus the reorganisation of work arising from the implementation of the new international strategy was minimal. Apart from the new computerised line and a welding robot, technology used in production is relatively unsophisticated. Despite this technology still determines, and limits, the work processes to narrow and repetitive tasks. As a consequence the production workforce has a low skills base as shown in Figure 6.4.
Almost 90% of the production workforce are classified at the lower skill levels of process workers and machine setters (AM HRD 1992b). Low levels of literacy amongst the largely non-native English speaking workforce (principally Macedonian) further exacerbate problems. Despite this the company has tried to provide promotion opportunities by recognising skills acquired internally through experience rather than simply employing from outside based on qualifications (AE Human Resource Director October 27 1992). Increased expenditure on training by the company in the early 1990s, as shown in Figure 6.5, reflects the adoption of a new Corporate strategy.

Source: AM HRD 1991c
Between 1989 and 1991 there was a six-fold increase in training hours per employees, from 6 hours in 1989 to 36 hours in 1991. By 1992 training represented 15% of company payroll and 9% of total gross turnover. A significant percentage of this was language training for overseas born manufacturing process workers in production, as the first step in skills upgrading (AM HRD 1992c). This is discussed further in the next Chapter.

The effects of these changes are not as easily determined. Auto Mechanical measures productive efficiency in a number of ways (Financial Controller March 15 1993). First, labour/capital efficiency is measured by value added per employee. Second, efficiency is measured by Standard-Yearly-Labour-Hours minus Clock Hours (actual hours clocked-on). Finally, materials management is measured by the number of inventory turns per year. Between 1987 and 1990 value-added per employee almost doubled, reaching a high in 1993 of $74,500. However there was little change in clock hours, although overtime worked increased steadily. During the same time inventory turns per year increased from 4.5 in 1987 to 7.1 in 1990, however a slight decrease to 6 turns per year was recorded after 1990.

Five service departments support production. The second largest employing department - Engineering and Sales - was created in 1990 by amalgamating two separate departments to assist development of a new export strategy. A senior Engineer with experience in the overseas sister companies heads the department. Engineers and technical officers design and test products in co-operation with customers. A NATA rated laboratory assists product design, while customer-linked CAD enables joint collaboration in product design with local PMV customers. As a result of the new strategy several engineers from the department undertook study tours of the French sister plant in preparation for production of the motor (Director Human Resources May 4 1993).

In 1989 the quality function was separated from Engineering and a new Quality department was established. The Director Quality stated technically trained or
experienced employees upgraded from production carried out the quality function. The quality department sets targets, issued charts, and audited the production process. There have been attempts to have production employees monitor product quality, especially on the newly computerised window regulator line, but this has met with varied response. Testing is performed against standards set in the company’s quality systems manual, itself produced by the Quality Department. Reliability of finished product was formally monitored and analysed by the Quality Department from both internal and external information collected through customer feedback and field data. Measurement of quality performance uses traditional economic indicators of rates of return, turnover, and profitability. Cost of quality is measured by expenditure on prevention of defects (target of 60% of quality expenditure), on post-production defect inspection and finally, on expenditure on scrap and rework (target of 20% each). The company uses sampling inspection and variable control charts for process control purposes. Quality inspection and testing is assisted by the laboratory and by two machines (one mechanised and the other computerised) testing for on-road rigour. Quality of inputs is defined through written specifications in the Auto Mechanical Quality Supply System. The most common method of verifying correctness to specification of purchased material is statistically based acceptance sampling with a target of zero defects. This function is shared between the Quality and Purchasing Departments (Director Quality December 15 1992).

In summary, quality is performed in a traditional manner, separated from production by the skills required of a technologically driven, post production quality assurance process. However there had been some attempt to promote process workers into quality to provide some link between the two departments.

The final three support departments are Purchasing, Finance, and Human Resources. The Purchasing department orders, receives, and despatches goods, organises the outsourcing of sub-component production and delivery and undertakes internal materials management. The department is responsible for the MRPII system. The computerised Managing Information System is administered through the Finance
department, which also handles all accounts, bookkeeping, and general administration. Finally, the newly created Human Resource Department has responsibility for all personnel and industrial relations activities. This Department is physically located within the manufacturing building to ensure close contact between the HR professionals and the workforce.

This work organisation resulted in 1992 in almost 70% of the workforce being classified as semi-skilled as shown in Figure 6.6.

![Auto Mechanical Classification of Workforce 1992](chart.png)

*Figure 6.6*

Source: AM HRD 1992b

Only 9% of the workforce were professionally or technically qualified with a further 8% trade qualified. The remaining 15% of the workforce worked in service areas but had been promoted on the basis of experience rather than formal qualification. This had resulted in some degree of interaction between process workers and specialists, however it was recognised that this required further change (Director Human Resource October 27 1992).

**Management**

Management was structured into departments in a multi-tiered hierarchy depending on Department size as represented in Figure 6.7 (AM HRD 1992a).
Management accounted for around 10% of company employment (AM HRD 1992a). Management personnel changed in 1990 with adoption of the parent-Corporation strategy, with a new Managing Director appointed as well as new directors of purchasing, human resources, and quality. This change did not, however, alter the managerial structure except to increase the importance of human resources and purchasing. Further, the appointment of two female directors changed the character of the previously all male management group.

To reduce separation between departments and improve communication managers met formally in cross-functional design and quality teams, or on an informal as needed basis. This, plus the relatively small size of the facility, has resulted in relatively effective communication between managers.

Although managers make all decisions informal communication between managers and workers occurs frequently as evidenced by the following cross section of responses to the question:
‘How would you describe the relationship between managers and employees in this company?’

- management consults with the shopfloor
- communication meetings are used effectively
- workers have no fear concerning the ideas they propose
- the recent morning tea with the Managing Director was good
- the physical location of managers makes them easier to access (Focus Groups February 15 & 16 1993).

These responses suggest amicable informal consultation. Confirmation of this observation was provided by the Climate Survey undertaken in 1993 (Task Force Consultants 1993). Around 60% of respondents disagreed with the statement – ‘I find it difficult to talk freely with my supervisor. Management is generally inaccessible and unapproachable’. On the other hand, 72% of employees agreed with the statement – ‘I’m satisfied with the job done by my manager. My manager handles change within my company’. While, 64% of respondents agreed and only 15% disagreed with the statement - ‘I am always treated fairly by management. I rarely, if ever, think about leaving for another job somewhere else’.

**Human Resource Management**

The Director, Human Resources, stated that before her appointment to the position in 1990 the company did not have a long term articulated and integrated employment relations strategy. All personnel related issues were the responsibility of individual departments. This resulted in significant variations in approach. The Personnel Officer had simply been responsible for all payroll matters and dealing with personnel problems as required. The language barrier between the largely Macedonian speaking manufacturing workforce and the personnel officer resulted in supervisors being largely responsible for all personnel issues. She described the separation of Human Resources as a separate department in 1990 as a demonstration of a more positive commitment to employees. This was confirmed by employee response to the 1993 Climate survey. In response to the question - ‘My company stresses the importance of workers. Staff morale is important’ - almost 80% of employees had responded in the affirmative (Task Force Consultants 1993). Following the appointment of the new Human Resource Manager initiatives were taken on a wide range of human resource
issues including Equal Employment Opportunity, Training, and Occupational Health and Safety. These are described below.

First, Equal Employment Opportunity was promoted. In 1990 the company appointed two women into managerial positions, one as the Purchasing Director and one the Human Resources Director (Director Human Resources October 27, 1992). In the same year Human Resource Department developed three new company Policies - Equal Employment Opportunity (AM HRD 1990a), Affirmative Action (AM HRD 1990b), Sexual Harassment (AM HRD 1990c). However it was recognised more action had to be taken as even as late as 1992 women accounted for only 35% of salaried employees and less than 5% of managers.

Second, as mentioned earlier the company placed more emphasis on training. Before 1990 the company did not have a formal training policy and there were no structured career opportunities. Although a structured training program had not been introduced, total company training hours had increased to 4000, double that of a year earlier. This had resulted in average training hours per employee increasing from six to 14 hours (AM HRD 1992d).

Third, the company had demonstrated long-term interest in the occupational health and safety of its employees. A joint management-union Health and Safety Committee was established in 1986 (AM HRD 1986). By 1990 the company had a 2% safety incident rate which had yielded a minimal workcare levy of 7%, lower that the industry average (AM Health and Safety Committee 1990). In the 1993 Climate Survey, 67% of employees agreed with the statement – ‘My working area is a healthy and safe environment. The company pays attention to providing good facilities for staff’ (Task Force Consultants 1993).
Wages and Industrial Relations

The Metal Industry Award set wages and working conditions for the majority of employees. The State Commercial Clerks Award had covered administrative employees until the award was terminated by the Employee Relations Act (Victoria, Parliament 1992). The company continued to abide by these salaries and conditions during the time under review. The company has traditionally paid over-award rates for skills. Salaries of managers and specialist employees were set according to the Hay job evaluation method with annual Performance Reviews. This different approach to remuneration led to some resentment between award and salaried employees as non-wage benefits, such as the provision of vehicles, only applied to salaried personnel (Director Human Resources October 27 1992).

The manufacturing workforce was fully unionised. The Amalgamated Metal Workers Union (AMWU) was the only union on site since the 1991 amalgamation with ADSTE. The union dealt with the company on two levels. At the operational level, the locally elected shop steward, and the Director, Human Resources negotiate workplace conditions. At a broader level, a full-time union official assists the shop steward on award or enterprise agreement negotiations. Both the Director Human Resources and the full-time union official, separately, defined the relationship as positive and constructive (Director Human Resources & AMWU Official May 4 1993). Company specific industrial action had not occurred, and agreements had been made with the workforce to accommodate nation-wide strikes. However the existence of a high absentee rate, averaged at around 7% per annum (often considered as a measure of hidden unrest), was cause for concern.

Pressure for Change

In 1990 Auto Mechanical experienced considerable external pressures for change from the International Corporation, local PMV customers, government and unions.
The first environmental pressure came from the parent company. Table 6.1 shows in 1990 the company faced a positive market (AM Finance Department 1993).

Table 6.1
Auto Mechanical
Key Performance Data 1988-1993

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales $M</th>
<th>Profits (Pre Tax)</th>
<th>Return On Assets (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>15821</td>
<td>-562,465</td>
<td>-10</td>
</tr>
<tr>
<td>1988</td>
<td>22168</td>
<td>-1,234,843</td>
<td>-29</td>
</tr>
<tr>
<td>1989</td>
<td>31631</td>
<td>-1,580,487</td>
<td>-58</td>
</tr>
<tr>
<td>1990</td>
<td>40475</td>
<td>1,233,154</td>
<td>17</td>
</tr>
<tr>
<td>1991</td>
<td>31226</td>
<td>-673,192</td>
<td>-12</td>
</tr>
<tr>
<td>1992</td>
<td>24051</td>
<td>24,684</td>
<td>1</td>
</tr>
<tr>
<td>1993</td>
<td>20628</td>
<td>1,348,000</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: AM, Finance Department 1993

In that year sales reached a high of $40,475 million, more than double the $15,821 million in 1987. Pre tax profits were positive at $1,233,154, with a 17% return on assets. Given this, one would expect resistance from management, workers, and unions, to any proposal for change. However a slump occurred in 1991. Although the company quickly recovered its profitability a loss of $673,192 was recorded in 1991. By 1992 a positive return of $24,684 was recorded with an increase to $1,348,000 in 1993. Furthermore, although return on assets had declined to minus 12% in 1991, 1993 recorded a 20% return. The financial improvement occurred despite a reduction in sales to just over $20 million in 1993, or half the 1990 figure. This appears to be partly due to improved productivity per employee, and partly to improved materials management. However shedding unprofitable product lines (associated with the halving of revenue between 1990 and 1993) also boosted return on assets and profitability.

These improvements in productivity were associated with reduced production, sales turnover and employment. The decline of employment after 1989 is shown in Figure 6.8 (AM HRD 1992b).
In 1989 a peak of 450 employees was achieved. Two years later employment slumped by 255 to 155, a company low. The biggest decrease occurred between 1989 and 1990 when 160 persons left the company, followed by a further reduction of 65 persons between 1990 and 1991. Employment did show some recovery after 1991, to reach 167 persons employed in 1993 (AM HRD 1992b).

To summarise, after 1990 change was forced on Auto Mechanical by the parent company. This change revised local production and dropped some lines, whilst cutting jobs to increase profitability. It should be noted 1992 also saw a decline in demand from assemblers. This contributed to lower sales and jobs.

The second environmental pressure came from customer quality demands. The Ford Q101 and Q1 systems, as explained in Chapter Three, were especially relevant to Auto Mechanical given the importance of Ford as a customer for the new Systems Units. This Ford preferred supplier quality system required a greater emphasis on process quality improvements. In response Auto Mechanical developed a Total Quality Management program at significant extra expense to the company.
The third and final environmental pressure came from industrial relations developments. The new bargaining structure introduced through the AIRC required a more sophisticated collective bargaining process at the enterprise.

Summary

In summary Auto Mechanical is an American owned company that in 1990 was pressured by the parent to introduce a new strategy in accordance with the International Group to which it belongs. This strategy involved a rationalisation of the product range and an agreement to develop expertise in production of a motor required by various Unit systems. The implementation of this strategy resulted in a reduction in manufacturing output as some sub-assemblies were outsourced, and a new computerised production line for window regulators was installation.

However, production remained essentially task oriented with a production driven focus. This was confirmed by a 1993 Climate Survey which found the company had a high standardised score of 4.46 (five being the maximum) in task oriented, rational climate dimension (Task Force Consultants 1993). Work organisation, as summarised in Table 6.2 remained modelled on Fordist principles. Departments remained segmented on a functional basis with production the main employing department. The production process was technologically determined by relatively rigid and unsophisticated machinery except for the new computerised process. Production was standardised by industrial engineers into short cycle times. Work in production was defined by narrow, repetitive tasks with limited job rotation, flexibility, and limited autonomy for the workforce.
In contrast, work in service departments was more skilled, allowing employees more autonomy, variety, and flexibility. This resulted in a largely semi-skilled production workforce separated from highly skilled specialists in support departments. However, company attempts to promote internally had resulted in less separation between departments as employees were promoted from one department to another. Product was designed by specialists with no input from the plant and thus although there was discussion of ‘design for manufacturability’ this was not well developed. After 1990 Auto Mechanical gave more attention to human resource management and to developing co-operation with unions. This resulted in limited employee involvement in quality improvement. Finally, management remained organised in a hierarchical and segregated structure, with all decisions made by management.

By the late 1980s Auto Mechanical was a company under stress. To continue as a viable commercial entity in the new International market it had to develop strategies

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### Table 6.2

<table>
<thead>
<tr>
<th><strong>Auto Mechanical</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work Organisation Mass Production Model</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Departments</strong></th>
<th>segmented, functional departments, and sub-departments</th>
</tr>
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<tr>
<td><strong>Process</strong></td>
<td>standardised by industrial engineers</td>
</tr>
<tr>
<td></td>
<td>technologically determined – unsophisticated machinery</td>
</tr>
<tr>
<td></td>
<td>short cycle time per job</td>
</tr>
<tr>
<td></td>
<td>no schedule for preventative maintenance</td>
</tr>
<tr>
<td><strong>Job design</strong></td>
<td>plant - narrow, individual, tasks based with limited job</td>
</tr>
<tr>
<td></td>
<td>rotation and flexibility</td>
</tr>
<tr>
<td></td>
<td>support – more autonomy, flexibility and variety limited</td>
</tr>
<tr>
<td></td>
<td>job rotation and flexibility</td>
</tr>
<tr>
<td></td>
<td>technologically determined</td>
</tr>
<tr>
<td><strong>Skills &amp; Depth of Knowledge</strong></td>
<td>more than half are semi-skilled, less than 20%</td>
</tr>
<tr>
<td></td>
<td>technical, professional or trade semi-skilled</td>
</tr>
<tr>
<td><strong>Product design</strong></td>
<td>superior automotive body system - body chassis system</td>
</tr>
<tr>
<td></td>
<td>discussion of design for manufacturability</td>
</tr>
<tr>
<td><strong>Human Resource Management</strong></td>
<td>becoming proactive</td>
</tr>
<tr>
<td><strong>Industrial Relations</strong></td>
<td>strong union, but co-operative process</td>
</tr>
<tr>
<td><strong>Product Quality</strong></td>
<td>quality inspection post production</td>
</tr>
<tr>
<td></td>
<td>no continuous quality improvement</td>
</tr>
<tr>
<td></td>
<td>no employee involvement</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>centralised hierarchical</td>
</tr>
<tr>
<td><strong>Market Segment</strong></td>
<td>local Australian market</td>
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<tr>
<td></td>
<td>opportunity to export to sister companies</td>
</tr>
</tbody>
</table>
to increase productivity and efficiency at reduced prices. At the same time local Assemblers were placing increased and costly quality demands on the company. Furthermore, the company workforce was faced with the threat of redundancy as product range was rationalised and sub-component production was outsourced. As this was happening demands were being made to develop a more sophisticated enterprise-based collective bargaining process. In this context the decision by the company to implement further change associated with the three workplace reforms is understandable. The next chapter discusses these changes.
CHAPTER SEVEN

Auto Mechanical (II)
Workplace Reform through Consultation

Introduction

This chapter sets out in detail how Auto Mechanical used the workplace reform processes - quality management, institutional workplace reform and best practice - to implement the new international business strategy designed by the American parent Corporation. This chapter is organised as follows. The first section presents the major changes introduced under each reform process. These are summarised in Table 7.1. The second section explores the operation of these changes in terms of workforce participation. The conclusion is twofold. First, integration of the reform processes made them mutually reinforcing. Second, representative workforce participation through the Consultative Committee contributed to development of a new management-workforce relationship based upon co-operation and consultation.
## Auto Mechanical Workplace Reform

<table>
<thead>
<tr>
<th>DATE</th>
<th>Quality Management Reform</th>
<th>Institutional Reform</th>
<th>Workplace Reform</th>
<th>Best Practice Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td></td>
<td>Two Tier Agreement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>Ford Q101 (140 points)</td>
<td>Award Restructuring</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consultative Agreement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ford Q101 (150 points) - SQR rating 50U (unsatisfactory)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>Quality Council of Manager established</td>
<td></td>
<td></td>
<td>World Competitive Manufacturing Workshop</td>
</tr>
<tr>
<td>September</td>
<td>Ford Q101 (160 points) – SQR rating 94U (unsatisfactory)</td>
<td></td>
<td></td>
<td>application for funding under Australian Best Practice Demonstration Program</td>
</tr>
<tr>
<td>October</td>
<td>GMHA and Toyota B+ rating 309 points (restricted supplier)</td>
<td></td>
<td></td>
<td>new technology – computerised window regulator line</td>
</tr>
<tr>
<td>November</td>
<td>Ford Q101 (168 points) - SQR rating 94E (excellent)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>Ford Preferred Supplier listing</td>
<td>Enterprise Agreement</td>
<td></td>
<td>integrated policies developed</td>
</tr>
<tr>
<td></td>
<td>GMHA Toyota B+ rating, 348 points (approved supplier status)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supplier Quality Assurance</td>
<td>Kanban introduced with supplier regulator rails</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>Ford Q1</td>
<td>Enterprise Agreement</td>
<td>World Competitive Manufacturing funded training –teamwork</td>
<td></td>
</tr>
</tbody>
</table>

### Quality Management Reform

The Director Quality explained that traditionally Auto Mechanical had relied upon a technical approach to quality assessment with engineers in the Engineering Department and quality professionals in the Quality Department performing all tasks associated with quality assurance (Director Quality December 15 1992). The company had gradually improved its quality rating with its PMV assembly customers. For example in 1989 it was awarded 140 points towards Ford Q101, this was increased to 150 points in 1990, 160 points in September 1991, 166 in October 1991 and finally it was awarded Ford Q101 status in November 1991. It took until 1993 for it to be awarded Ford Q1 preferred supplier quality status. Similarly in 1991 the
company was only granted a restricted supplier status for GMHA and Toyota B+, upgraded in 1992 to a fully approved supplier status (AM 1992b).

The Quality Department produced and interpreted the quality manual. Quality professionals were responsible for compiling all data related to quality performance, however this was limited to post-production assessment. There were no process control methods to evaluate process capability or to enable modification of process during production. Process control relied solely upon gauges, measuring, and test equipment. There was no established process for rework and no ability to analyse and document returned parts. Finally, there was no long-term strategy for quality improvement. These limitations had resulted in a number of problems for the company. The Managing Director explained that when he was first employed in 1986 as the Production Manager the production process was geared to a quantity-based rather than quality conscious output. This resulted in various stockpiles around the plant of poor quality unsaleable components (Managing Director October 7 1994). By 1990 scrap levels of product were nearly 5000 parts per million (PPM), supplier rejects were over 5000PPM, and customer returns were as high as 4000PPM (AM Quality Department 1993a).

In the late 1980s two further pressures were added to the company which forced it to reassess its approach to quality. Firstly, as discussed in Chapter Three, PMV customers required evidence suppliers were updating their quality systems. Secondly, the Parent Corporation required all companies within the Group to develop TQM objectives within a new quality management program (Director Quality December 15). In response to these pressures, in 1990 Auto Mechanical introduced a TQM program. Table 7.2 summarises these changes in terms of the Ford Quality System Standards (1990), (Ford being a major customer for Auto Mechanical). Both broad company structural and specific process changes were introduced.
Table 7.2
Auto Mechanical
Quality Management Reform Process
1989-1993

<table>
<thead>
<tr>
<th>Strategy Required</th>
<th>AM Change Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROCESS and PRODUCT QUALITY</strong></td>
<td></td>
</tr>
<tr>
<td>evaluate process capability (post production only)</td>
<td>Quality Management Steering Committee (QMSC)</td>
</tr>
<tr>
<td></td>
<td>Quality Planning Team (QPT)</td>
</tr>
<tr>
<td></td>
<td>Quality Operating System Strategy (QOSS)</td>
</tr>
<tr>
<td>product control (traditional)</td>
<td>QMSC, QPT</td>
</tr>
<tr>
<td>process control</td>
<td>Computerised window regulator line</td>
</tr>
<tr>
<td>8D reports</td>
<td>training and teams in 8D problem solving techniques</td>
</tr>
<tr>
<td>Statistical Process Control to monitor processes and improve capability</td>
<td>training in Statistical Process Control techniques</td>
</tr>
<tr>
<td>plans for continuous improvement</td>
<td>QMSC and QPT</td>
</tr>
<tr>
<td><strong>PLANNING</strong></td>
<td></td>
</tr>
<tr>
<td>Failure Mode and Effect Analysis</td>
<td>training in Failure Mode and Effect Analysis and teams established</td>
</tr>
<tr>
<td>control plans</td>
<td>adoption of the international corporate quality control procedure QMSC, QPT, QOSS</td>
</tr>
<tr>
<td>preliminary process capability studies</td>
<td>design for manufacturability</td>
</tr>
<tr>
<td>process to monitor and control sub-supplier quality</td>
<td>supplier quality assurance handbook</td>
</tr>
<tr>
<td><strong>DOCUMENTING</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CRITICAL CHARACTERISTICS</strong></td>
<td></td>
</tr>
<tr>
<td>key quality disciplines for control items</td>
<td>QOSS</td>
</tr>
</tbody>
</table>

Management Related Change

In 1990 management adopted the Quality Control Procedure of its parent International Corporation. This required all managers to agree to “assure the adherence to Quality Standards, which are consistent with company policy and customer requirements” (AM 1990). This resulted in the company in 1991 establishing a Management Steering Committee (QMSC). Membership of the Committee consisted of the Managing Director and six Departmental Directors-Managers. The Committee was given the task of developing a quality awareness program for the company. However the non-inclusion of workforce representatives on the committee reinforced the attitude that quality improvement was a management and specialist rather than a workforce responsibility. The QMSC was assisted by monthly reports from a Quality Planning Team. The Team consisted of all Departmental managers plus two specialist from the Engineering and Quality Departments. There was also no
workforce representation on this Team. In 1993 management adopted a company Quality Operating System Strategy (QOSS) as shown in Table 7.3.

Table 7.3
Auto Mechanical Quality Operating Systems Strategy

<table>
<thead>
<tr>
<th>Human Resources</th>
<th>Purchasing</th>
<th>Production</th>
<th>Finance</th>
<th>Product Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>safety incidence</td>
<td>inventory turns</td>
<td>direct labour efficiency</td>
<td>return on sales</td>
<td>new product introduction – timing plan versus actual date</td>
</tr>
<tr>
<td>% absenteeism</td>
<td>delivery on time</td>
<td>% machine downtime</td>
<td>return on assets</td>
<td>number of product changes after job 1</td>
</tr>
<tr>
<td>training hours per employee</td>
<td></td>
<td></td>
<td>value added per employee</td>
<td></td>
</tr>
</tbody>
</table>

Source: AM Quality Department 1993b

The QOSS had a three-fold task. First, to establish and monitor targets related to Key Performance Indicators (KPIs). Second, to develop control plans, and third, to assist in the dissemination of responsibility for quality throughout the company.

Finally, in 1992 specialists in the Quality Department developed a company specific Supplier Quality Assessment (SQA) Handbook and a Supplier Quality Assessment Manual in an attempt to develop a process to monitor and control sub-supplier quality (AM 1992c). Contractual Agreements required adherence to the standards and processes. The SQA committed suppliers to zero defects with total batch rejection if one item was found to be faulty. Suppliers were expected to undertake monthly self-rating. Certification of 23 key suppliers resulted.

As well as these managerial changes the company introduced joint management-employee changes as follows.
First, the QOSS aimed to extend responsibility for quality improvement throughout the company by negotiating targets with unions and then assigning target achievement to various departments. However this had limited success during the time period under review (AM Quality Department 1993b). The QOSS also adopted the concept of ‘design for manufacturability’, although this had not proceeded into action during the time under research.

Second, the QOSS reconfirmed the decision made in 1992 to establish an initial training target of 40 hours of working time per employee to be devoted to training in quality. This resulted in training of specialists and some production workers in techniques associated with FMEA, 8D problem solving techniques, and SPC techniques. However this training was limited to production downtime.

Third, a new computerised Windscreen Regulator Line was commissioned. It was to be designed with state-of-the-art technology and was to incorporate quality checks. Process workers were consulted about the design. When installed, operators were trained and expected to carry out quality checks with only limited assistance from the Quality Department.

Fourth, Quality Improvement Teams were introduced in 1992. First, 8D Problem Solving Teams were established under quality specialists. Membership was voluntary but workers immediately affected by the problem were encouraged to participate. The team could call on technical assistance as required. Special purpose Ford trained and led Productivity Enhancement Process (PEP) Teams were later introduced.

As well as changes directly related to the quality management process, other changes affecting quality were introduced as part of institutional workplace reform and best practice. They are mentioned here because of their relevance to quality improvement but details are provided in appropriate Sections of this Chapter.
First, in 1992 a World Competitive Manufacturing workshop was held as part of the company’s commitment to best practice. Policies for Manufacturing, Marketing, Innovation, Human Resources, and Finance were developed during this workshop. Most policies included a commitment to continuous quality improvement and thus broadened responsibility for quality improvement beyond the Quality Department.

Second, the 1992 Enterprise Agreement negotiated with unions as part of the institutional workplace reform process included a commitment to continuous quality improvement, with a focus on seven Key Performance Indicators.

Third, implementation of the 1992 Enterprise Agreement required production workers to volunteer for training to upgrade skills according to the Engineering Production Certificate. Teaching modules on quality improvement became the responsibility of specialists in the AM Quality Department.

Thus during the time under review Auto Mechanical introduced changes as part of its quality improvement strategy. These changes were aimed principally at process improvements, and involved joint action by management, production workers and specialist employees. They were also integrated with other changes being introduced as part of other reforms. This resulted in improvements in product quality as shown in Table 7.4.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Quality Management</td>
<td>no record</td>
<td>44%</td>
<td>65%</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td>parts per million (Customer returns)</td>
<td>3918</td>
<td>1536</td>
<td>663</td>
<td>192</td>
<td>350</td>
</tr>
<tr>
<td>scrap</td>
<td>no record</td>
<td>no record</td>
<td>$0.82</td>
<td>$0.65</td>
<td>$0.45</td>
</tr>
<tr>
<td>inventory</td>
<td>7.6X</td>
<td>6.0X</td>
<td>6.1X</td>
<td>5.9X</td>
<td>7.8X</td>
</tr>
<tr>
<td>delivery</td>
<td>no record</td>
<td>no record</td>
<td>96%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: AM, Quality Department, 1993a

The company’s TQM indicator showed steady improvement, from 44% in 1991 to 89% in 1993, against a 92% target. Customer returns measured in parts per million were reduced from 3,918 in 1990 to 192 in 1993, well below the 350 target. Cost of
scrap had been reduced from $0.82 in 1992 to $0.65 in 1993, against a $0.45 target. Finally, delivery-on-time had improved from a 96% success rate in 1992 to the 100% target set for 1993. The only measure with no improvement was inventory turns which actually reduced from 7.6 turns a year in 1990 to 5.9 turns in 1993 against a target of 8.8 turns (AM Quality Department 1993a).

The workforce shared with management the view that quality was improving. This was demonstrated in 1993 when 89% of employees agreed with the statement – ‘My department is well organised and runs efficiently. The quality of work done by my group is high’. A further 98% of employees agreed with the statement – ‘In my work there is importance placed on meeting customer needs. We concentrate on serving customers’ (Task Force Consultants 1993). These responses also suggest employees were committed to quality improvements of both product and process. Further evidence is provided by typical employee response as set out below to the question:

‘What changes have occurred to quality in the last five years?’

- new technology
- cleaner production process
- new window regulator line
- better layout
- SPC to the shopfloor
- PEP and 8D teams
- operator responsibility for quality
- commitment to training
- ongoing improvements (Focus Groups February 15 & 16 1993).

Thus employees recognised quality improvements did not simply rely on technological improvements but also required management support for change to the production process, and to employee skills acquired through training.

Thus the quality reform process introduced greater commitment to quality improvement from both management and employees through changes that required greater workforce participation as summarised in Table 7.5.

Table 7.5

| Auto Mechanical |
| Workforce Participation and Quality Management Reform |

182
<table>
<thead>
<tr>
<th>Participant</th>
<th>Form of Workforce Participation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management 1991</td>
<td>Quality Management Steering Committee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Planning Team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Operating System Strategy</td>
<td></td>
</tr>
<tr>
<td>Production workers</td>
<td>training</td>
<td>target for all employees</td>
</tr>
<tr>
<td></td>
<td>quality targets negotiated with unions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>training in Statistical Process Control and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Failure Mode and Effect Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>continuous quality improvement on window</td>
<td></td>
</tr>
<tr>
<td></td>
<td>regulator line</td>
<td></td>
</tr>
<tr>
<td>Specialists</td>
<td>training</td>
<td>Productivity Enhancement Process teams</td>
</tr>
<tr>
<td></td>
<td>Quality Planning Team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Operating System Strategy Training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Failure Mode and Effect Analysis, Statistical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Process Control, 8D</td>
<td></td>
</tr>
<tr>
<td></td>
<td>involvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1992 Ford Productivity Enhancement Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>teams</td>
<td></td>
</tr>
</tbody>
</table>

It is clear there was a commitment to training employees in the skills required for participation in continuous quality improvement activities. Once employees were trained they were encouraged to participate in quality improvement teams. However this training was not accompanied by significant work reorganisation to enable workers to utilise these skills as part of their normal activities except on the new window regulator line. The effect of this limited form of workforce participation will be pursued later, following discussion of changes associated with the other two reform processes.
Institutional Workplace Reform

Given the employment implications of decision of the company to narrow its product base, it is not surprising managers availed themselves of the opportunity to devolve enterprise bargaining to improve productivity as shown in Table 7.6.

**Table 7.6**

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>TWO TIER 1987</th>
<th>AWARD RESTRUCTURE 1989</th>
<th>ENTERPRISE AGREEMENT (1) 1992 (AIRC ratified)</th>
<th>ENTERPRISE AGREEMENT (2) 1993 (AIRC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>wage increase - $10 plus 4%</td>
<td>wage increase – 3% plus $10 but no reclassification</td>
<td>wage increase –4.5% plus 4.5%</td>
<td>wage increase – 4%</td>
</tr>
<tr>
<td></td>
<td>wages paid by Electronic Funds Transfer</td>
<td>consultation</td>
<td>consultation re-commit to Enterprise Agreement</td>
<td>part time and casual employees</td>
</tr>
<tr>
<td></td>
<td>flexibility in rostering leave</td>
<td>occupational health and safety sub-committee</td>
<td>meal breaks flexibility absenteeism</td>
<td>flexible employment opportunity</td>
</tr>
<tr>
<td></td>
<td>grievance procedure meal breaks</td>
<td>consultation on training</td>
<td>equal employment opportunity</td>
<td>job security</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>commitment to skills upgrade</td>
</tr>
<tr>
<td>Production</td>
<td>supervisors as trainers</td>
<td>flexibility and teams</td>
<td>consult on Continuous Quality Improvement, new technology and best practice</td>
<td></td>
</tr>
<tr>
<td>Strategic</td>
<td>more communication</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The absence before 1990 of a well-resourced human resource department able to effectively negotiate industrial relations matters resulted in few productivity gains.
negotiated under the second tier agreement in 1987. This was rectified in 1989-1990 by the implementation of a Consultative Agreement negotiated as part of the Award Restructuring implementation process. This was followed in 1992 and 1993 by Enterprise Agreements that committed unions and employees to seek improvements. In return management agreed to provide employees with equal opportunity to training for skills and career opportunities, within a healthy and safe work environment. All these agreements were ratified before the AIRC.

Two Tier

The first agreement was negotiated in 1987 in a traditional collective bargaining manner between the full-time union official supported by the shop steward and the personnel officer. The agreement was modelled on industry level proposals. The main items included were:

- payment of wages by Electronic Funds Transfer
- flexibility in the timing of meal breaks
- flexibility in the scheduling of Rostered-Days-Off (RDOs)
- new grievance procedure (AM & AMWU, ASE, ADSTE 1987)

Award Restructuring

The second agreement was negotiated in 1989 between the full-time union official supported by the shop steward and the personnel officer as part of the implementation of the Metal Industry Award. This agreement accorded with the principles then espoused by parties at the industry level. It gave a general commitment to company growth, stability, and protection for the workforce and to adoption of a more consultative management-workforce relationship. The stated aim of the Agreement was:

to provide more jobs and greater security, more interesting, higher skills with wages for skills based on the proposed Metal Industry Award (AM & AMWU, ASE, ADSTE 1989).

This was to be achieved by a commitment from the company to job security as stated in Clause 1.1.1:

no retrenchments will occur due to productivity improvements from the award restructuring process... Although transfers of employees to other areas of operation may take place after
discussion and agreement with the Consultative Committee, employees concerned and shop stewards (Cl.1.1).

The newly established Consultative Committee was to provide a forum for discussion on how to deal with economic factors outside company control that threatened to adversely affect employment. This was provided for in Clause 1.1.2, which stated:

in the event of a market turn down or loss of orders due to forces outside the control (of the company), discussions would take place at the earliest opportunity through the Consultative Committee with a view to minimising job loss (Cl.1.2).

Communication was to be improved by management providing employees with more information, through:

the regular and systematic provision of accurate information to employees on a range of financial, industrial, personnel, and organisational matters is a vital element of good employee-employer relationships (Cl.6.1).

It was agreed such information sharing was important for employees to understand company strategy. Thus the Agreement stated there would be:

regular and systematic sharing of information is important to ensure employees understand the nature and operational characteristics of the enterprise or organisation in which they work (Cl.6.2).

There would also be:

regular and systematic sharing of information is important to ensure employees have all the information they need to carry out work effectively and safely:

- employees understand how their job fits into the overall process
- employees know where they stand and do not suffer from uncertainty, and doubt about their job security, future prospects etc
- full use is made of employees’ skills and ideas at all levels of the enterprise
- problems are dealt with quickly rather than festering (Cl.6.2).

Consultation between managers and employees was to be through a Consultative Committee established with the following objective:

the maintenance and expansion of the industry, securing and hopefully the expansion of jobs, improvement in their working environment, in particular making work a more enjoyable experience through job design and training, the development of more effective communication between management and employees, where possible improving the efficiency of the plants, making the most effective use of new technology and the general development of a more pleasant atmosphere for all people to work in (Cl.2.2).
Consultation was also to be assisted by training supervisors in new leadership skills as follows:

- a supervision training program be developed to promote the supervisor as assistant and organiser, as a trainer with training skills, and to minimise the traditional control function (Cl.4.2).

Finally, commitments were given to improve employee welfare through increased training, closer scrutiny of occupational health and safety and actions to assist equal employment opportunity, as detailed below.

First, there was the commitment on training. Clause 3 stated the company would establish a Training and Job design sub-committee of the Consultative Committee to “investigate among other things, the required skills, how they should be obtained and the potential for improved Job Design”. This training was to accord with the proposed Metal Industry Award, with training and accreditation provided by TAFE. The agreement sought to protect the right of employees to training by stating:

- all employees have the right to upgrade their skills
- paid training leave would be available for agreed courses relate to a person’s current position, projected future position, or future job security
- training is to be voluntary and nobody is to be discriminated against who does not wish to participate
- training to include literacy and numeracy and English on the job for those people requiring as a basis for upgrading their skills, in order they not be disadvantaged
- a survey of skills be conducted to identify skill shortages and ascertain the views of employees on what skills they require
- training should pay special attention to transfer of skills for the new technology in order all maintenance programming and other activities are handled by the direct employees
- all training occur in worktime, and the amount to be decided by company negotiations
- induction programs be developed in consultation with the workforce
- training be provided in the explanation of the whole job, including information on forward planning and explanation of changes (Cl.3).

To further assist career opportunities for employees Clause 4.1 states that:

- all employment opportunities should be open to the local workforce first before being advertised externally. This is to include appropriate required training if an employee wished to take the job but requires new skills, subject to reasonable time (Cl.4.1).

Thus, there was a clear commitment by the company to developing career opportunities for employees through skills upgrading.
Second, there were commitments on occupational health and safety. Clause 5.1 of the agreement stated the aim was to improve health and safety by establishing links between the existing Health and Safety Committee and the Consultative Committee:

the Health and Safety Committee to become a sub committee of the Consultative Committee reporting on its activities monthly (Cl.5.1).

Further a high priority was given to development of an education-training program on health and safety.

Third, there were commitment to equal employment opportunity. The Agreement committed the company to taking a “proactive role in encouraging women to participate in training for skills and career development” (AM & AMWU, ASE, ADSTE 1989). Clause 8.1 of the Agreement referred to equal opportunity, especially as this affects female employees:

in recognition of the high percentage of women workers…..any changes that occur would take into account the needs of women workers. The organisation will take a proactive role in encouraging women to participate in training for skill and career development (Cl.8.1).

In summary the Consultative Agreement negotiated in 1989 placed emphasis on development of a long-term focus for the company to be explored through a consultative framework.

**Enterprise Agreement**

The third Agreement was negotiated between full-time union official supported by the shop steward and the Human Resource Director and ratified by the AIRC as the company’s first Enterprise Agreement in January 1992 (AM & MEWU2 1992). This Enterprise Agreement was reconfirmed in January 1993.

The Enterprise Agreement was a more comprehensive document than the previous agreement. It was designed to compliment Part 1 of the Metal Industry Award 1984 with the proviso “where there is any inconsistency this Award shall take precedence”
(AM & MEWU 1992). The Agreement stated at its outset it should be seen as an integrated part of a broader change strategy being introduced by the company:

the agreement supports the continuous improvement in all ...measures to achieve, International Best Practice, Product cost and quality, Human Resources, Technology and Management (Cl.1.2).

The aim of the Enterprise Agreement was “to support our goal to become competitive in the world market in price, quality and delivery”. It was hoped the Agreement would provide the company with:

greater productivity and efficiency resulting in lower unit price with a higher quality. It will also allow the company greater flexibility to meet changes in the economic climate, both domestic and internationally at an optimal cost to the company (AM & MEWU 1992).

This was to be achieved by first reconstituting the company Consultative Committee under the following terms of reference:

- implementation of the Enterprise Agreement and Award restructuring
- continuous improvement
- conditions of employment, including the changes in the work schedules agreed in the enterprise agreement
- the formulation of a gain sharing plan,
- equal employment opportunity programs
- absenteeism
- quality

Secondly, joint commitment was given to seven Key Performance Indicators (KPIs) as follows:

- zero lost time accidents
- quality returns of less than 900PPM for 1992
- efficiency target of 113% in 1992
- zero customer lags
- absenteeism - target reduction to 1.2%
- less than $41,000 scrap
- nine or more inventory turns per year (AM & MEWU 1992).

In return for continued participation in the change process within the company employees received a pay increase from the 18th January 1992 and the opportunity to increase skills, enlarge job responsibilities and in so doing increase job satisfaction and provide greater job security (AM & MEWU 1992). Both parties committed themselves to a range of matters as set out below:

---

2 MEWU resulted from amalgamation of AMWU and ADSTE
Management Commitment

First, management gave a commitment there would be no job reduction as a result of changes introduced under the agreement:

Any changes arising from this clause *(flexibility)* are not the vehicle for job shedding. On the contrary through improved industry competitiveness, these changes should enhance job security (Cl.4.5).

Second, management agreed to continue its support of training and equal employment opportunity through providing:

all employees with a career path through the mechanisms provided in the Award. Each employee will have the equal opportunity for further training to advance through the classification structure based upon the company’s requirements and the employees utilisation of skills and qualifications at each classification level (Cl.4.1).

Employee Commitment

In return employees agreed to the following. First, employees agreed to use skills acquired when asked. They would “from time to time carry out duties for which they have been trained and are within the employees skills and competence” (Cl.4.2).

Second, employees agreed to more flexible rostering of their days-off by agreeing to bank up to five planned RDOs by agreement with employees to be utilised by this provision to plan for such things as maintenance or to avoid opening the plant for one, two or three days in a particular week when public holidays fall mid-week...*provided* …at least one month’s notice of any change is given (Cl.8.0).

Third, employees agreed to consult with management over “the number of periods and the length of individual periods of leave” (Cl.11.0).

Fourth employees agreed to some changes to the contract of employment to enable the company more flexibility. This included the ability for the company to utilise the part-time and casual employment facility within the Award to cover peak periods...*and*...for new employees to be employed on a probationary basis for a period of two months (Cl. 5.1 & 5.2).

It also included the ability of the company to introduce part time work under certain conditions
these conditions including maximum hours of work per day, payment for part-time work, ability to use part-time work to cover and finally the use of part-time work on the 4pm to 8pm shift (Cl.7).

To enable managers to plan production more easily employees agreed to some further flexibility. Meal breaks were to be varied to meet operational requirements (Cl. 10.0). Two hours notice would be given where possible when an employee was to be absent, and single day absences would be limited to two per year (Cl. 9). Union meetings would be held where possible during the specified breaks or as close as possible to the breaks (Cl.12.0).

To reduce administration costs employees agreed wages would be paid directly into a bank account using Electronic Funds Transfer (EFT), (Cl.6.1).

In accord with the condition on all agreements the Grievance Procedure introduced in 1987 was to continue. This would include employee access to counselling to “give an employee reasonable opportunity to improve performance or to correct unacceptable behaviour”(Cl.5.4). Finally, the Enterprise Agreement committed both parties to continue to consult on a number of issues through a reformed Consultative Committee.

Thus the institutional workplace reform process at Auto Mechanical resulted in substantive commitments by both parties to productivity and efficiency improvements. The extent to which these commitments resulted in actual improvements is less easy to determine. Data collected by the company concerning direct labour efficiency is inconclusive, as shown in Table 7.7 (AM Finance Department 1992).
First, although value added per employee increased from an estimated $56,700 in 1990 to $74,500 in 1993 (against a target of $77,800), direct labour efficiency fluctuated from a high of 85% in 1992 down to 80% in 1993 against an 84% target. Absenteeism, on the other hand, was reduced significantly over the period from around 7% in 1990 to just over 2% in 1993 (against a target of 1.2%). Finally, there was only one lost-time accident recorded in 1992 and 1993 (against a zero target). To what degree these changes may be attributed to enterprise bargaining is, however, uncertain. For example, it is likely the recession in 1991 caused the fall in absenteeism.

When more qualitative measures are invoked, outcomes from changes associated with institutional workplace reform appear more positive, although they still demonstrate a level of employee ambivalence. On the one hand, the company was able to introduce a major change without industrial relations upset despite a significant reduction to its labour force. On the other hand, the level of employee commitment to the company was not high. In a Climate Survey carried out 1993 almost 40% of employees responded they disagreed or were undecided about the statement – ‘The company is held together by loyalty and tradition. Workers feel strongly supportive of the Company’. In contrast, almost 90% of employees agreed with the statement ‘The company is held together by task and goal achievement. Everyone wants to meet their targets’. The question then becomes what will contribute to increased employee commitment to productivity and efficiency improvement? This requires further research.

### Table 7.7

#### Employee Productivity Improvement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>absenteeism (average total factory)</td>
<td>1.2%</td>
<td>6.69%</td>
<td>4.1%</td>
<td>2.9%</td>
<td>3.7%</td>
</tr>
<tr>
<td>direct labour efficiency</td>
<td>84%</td>
<td>not recorded</td>
<td>not recorded</td>
<td>85%</td>
<td>80.30%</td>
</tr>
<tr>
<td>safety</td>
<td>0</td>
<td>not recorded</td>
<td>not recorded</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>value added per employee</td>
<td>$A104,000</td>
<td>$A56,700</td>
<td>$A66,100</td>
<td>$A68,400</td>
<td>$A74,500</td>
</tr>
</tbody>
</table>

AM Finance Department 1992
It is clear from the discussion above that consultation was viewed as an important means to gain employee commitment to changes proposed by the company. Accordingly workforce participation was viewed as of central importance to institutional workplace reform, with changes proposed as summarised in Table 7.8.

**Table 7.8**

*Auto Mechanical*  
*Workforce Participation and Institutional Workplace Reform*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>collective bargaining with union</td>
<td>collective bargaining</td>
<td>collective bargaining – Single Bargaining Unit</td>
</tr>
<tr>
<td></td>
<td>participation on the Consultative Committee, the occupational health and safety committee and the training sub-committee</td>
<td></td>
<td>representative participation on Consultative Committee and training sub committee</td>
</tr>
<tr>
<td>Production</td>
<td>information sharing</td>
<td></td>
<td>representation on Consultative Committee discussion of teams, continuous quality improvement, and technology.</td>
</tr>
<tr>
<td>Strategic</td>
<td>information sharing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

However such representative participation workforce participation was designed in addition to collective bargaining through the union. The operation of this agreement is discussed later in this Chapter. In the meantime, changes associated with best practice are presented in the next section.

**Best Practice Reform**

In 1990 the International Corporate strategy (Credo) was imposed upon Auto Mechanical. This Credo had a number of elements, as summarised in Figure 7.1, implementing best practice principles.
First, customers were to be the focus of company attention. Second, the importance of employees was recognised. The company committed itself to excellence in its people management by focussing on respect for, and encouragement of, individuals, honest and open communication, participation, co-operation and teamwork to give employees a sense of ownership, and recognition and reward for achievement, especially for innovation and initiative. Third the company set the goal of achieving leadership in the global markets it served and conducting its business with ethical standards and integrity. Finally, a balance between short-term and long-term interests was recognised.
Similarly the strategy developed by Auto Mechanical to implement this credo accorded with best practice principles as summarised in Table 7.9 using the Rimmer et al best practice framework (Rimmer et al. 1996).

Table 7.9

<table>
<thead>
<tr>
<th>GOALS</th>
<th>AM EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>strategy</td>
<td>formal, evolutionary strategy</td>
</tr>
<tr>
<td>OPERATIONAL PRACTICES</td>
<td></td>
</tr>
<tr>
<td>organisational structures</td>
<td>no permanent teams but team ethos</td>
</tr>
<tr>
<td>Technology</td>
<td>significant investment in last five years</td>
</tr>
<tr>
<td>external relations</td>
<td>driven by rational opportunism</td>
</tr>
<tr>
<td>process improvement techniques</td>
<td>primarily framework or concept driven</td>
</tr>
<tr>
<td>people management</td>
<td>industrial relations approach</td>
</tr>
<tr>
<td>INFORMATION ENABLERS</td>
<td></td>
</tr>
<tr>
<td>measurement and control systems</td>
<td>macro data supplemented by key performance indicators</td>
</tr>
<tr>
<td>CULTURAL ENABLERS</td>
<td></td>
</tr>
<tr>
<td>change leadership</td>
<td>erratic change leadership</td>
</tr>
<tr>
<td>empowerment</td>
<td>direct employees have limited control over daily work</td>
</tr>
</tbody>
</table>

A Corporate Plan was developed that had a long-term strategic planning focus (AM 1992a). However company strategy evolved over time. The company did commit money and time to new technology. Management and employees did commit to the development of a team ethos, although permanent teams had not been created during the period under review and there was only limited direct employee control over their daily work. It was recognised process improvements were required although this did not occur during the life of this research. Similarly, although targets for KPIs were added to traditional macro data for measurement purposes, these were not well developed. Finally, the company relied upon a traditional industrial relations approach to people management with an erratic change leadership.

The next section explores these claims in more detail. First, in 1990 the company incorporated the Credo into an Operating Philosophy for the company that stated:

our objective is to achieve and then maintain an environment which encourages all employees to pursue never-ending improvement in quality, productivity and service of our products to our customers (AM Managing Director 1990).
This was followed in 1991 by an application to the Australian Best Practice Demonstration Program which stated the company had developed a proposal for best practice it believed was “comprehensive and integrated” (AM HRD 1991c). To support this claim the proposal cited strategies formulated to covering eight major activities – human resources, training, customers, workload evaluation, measurement, technology, plant design and dissemination. These are summarised in Table 7.10.

Table 7.10

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>PROPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>To draw on the experience of the international corporation to flatten management and staff structure</td>
</tr>
<tr>
<td>Training</td>
<td>To develop a competent, participative workforce capable of meeting quality, productivity, and service standards required to exceed customer expectations</td>
</tr>
<tr>
<td>Customers</td>
<td>To clearly identify internal and external customers and their needs, and the organisation and training requirements to meet these needs</td>
</tr>
<tr>
<td>Workload evaluation</td>
<td>To identify current and projected workloads as the basis for resource planning, staff training and continuous improvement in quality and productivity</td>
</tr>
<tr>
<td>Measurement</td>
<td>To implement measures to monitor improvements and competitiveness in relation to customer service, productivity, staff satisfaction and performance. To implement benchmarking against the International Group and other best practice organisations</td>
</tr>
<tr>
<td>Technology</td>
<td>To introduce leading-edge technology related to manufactured process</td>
</tr>
<tr>
<td>Plant Design</td>
<td>To create an ergonomically designed working environment</td>
</tr>
<tr>
<td>Dissemination</td>
<td>To create plans to enable the success of the project to be broadly communicated throughout the business community to foster a propagation effect</td>
</tr>
</tbody>
</table>

Source: AM HRD 1991c

Despite being unsuccessful in this application in 1992 the company obtained financial support from a Federal-State government fund to hold a series of workshops aimed at developing employee commitment to World Competitive Manufacturing (WCM). A workshop was held in January 1992 with both management and employee representatives. This workshop was successful in developing a series of detailed strategies for the five major activities carried out by the company - Manufacturing, Marketing, Innovation, Human Resources and Finance (AM 1992d). These strategies are summarised in Table 7.11.
### Auto Mechanical Policies 1992

| Manufacturing Policies | * products which exceed customer requirements (Just-In-Time, quality and cost)  
| | * foster partnerships with suppliers  
| | * establish goals aimed at continuous improvement  
| | * implement appropriate technologies to support manufacturing policies.  
| Marketing Policies | * based on an understanding and commitment to total quality  
| | * sustainable competitive advantage through the identification of opportunities  
| | * promotion of products and establishment of competitor profiles.  
| Innovative Policies | * encouraged through the design of products and development of manufacturing systems exceeding customer quality requirements  
| | * achieved within an environment aimed at stimulating employees to continually suggest improvements through cross-functional teamwork.  
| Human Resource Policies | * workforce to be encouraged to be involved through  
| | * effective communication  
| | * teamwork  
| | * training in appropriate skills  
| | * a positive, rewarding, and safe environment  
| Finance Policies | * measure success through a combination of profits, return on assets, return on sales, market share, and  
| | * increase in inventory turns, and reduction in absenteeism, and an increase in parts per million efficiency.  

Source: AM, 1992c

The strategies shared commitments to many of the best practice principles including continuous quality improvement, updated technology, improved customer-supplier relations, increased employee involvement through teamwork and training, a healthy and safe environment and finally performance measurements beyond traditional economic measurements.

Thus by 1993 there was evidence of both management and employee commitment to a broad agenda for change in accord with best practice principles. This was demonstrated in 1993 when typical responses as follows were given to the question:

**What should be included in a plan to make the company a world competitive export company?**

- Training –C12, supervisor, PEP, SPC, English
- Kanban/Just-In-Time – reduction in scrap and waste and improvements in inventory
- Team activities – 8D, PEP, Consultative Committee, Health and Safety Committee, Work Group teams, Design teams (suppliers and customers)
- Key Performance Indicators
- New technology – gauges, window regulator line, plans for motor line (Focus Groups February 15 & 16 1993).
These responses suggest employees and management were united in recognising the importance of a company strategy incorporating change to operational practices, technology, training and quality, together with development of indicators to assist the measurement of performance changes. What then of the other aspects of best practice.

Despite recognition of the need for broad change, little actual change occurred during the period under review. Although the computerised window-regulator line was claimed as a pilot project for teams there was little evidence this line operated as a semi-autonomous-work-group despite operators having contributed to the “study, design and prototype evaluation of the line” (Manager Production December 15 1992). Further, although a training program on lean manufacturing work principles was carried out in 1993 and a Training Needs Analysis undertaken, the outcome of these were still under discussion at the conclusion of the research period (AM HRD 1993). Finally, although seven new KPIs, as summarised in Table 7.12, were developed through the Consultative Committee, targets for these indicators were still being developed.

<table>
<thead>
<tr>
<th>WORKFORCE</th>
<th>QUALITY CUSTOMER SERVICE</th>
<th>HIGH PRODUCTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>absenteeism</td>
<td>deliver on time</td>
<td>direct labour efficiency</td>
</tr>
<tr>
<td>safety incident rate</td>
<td>customer returns</td>
<td>unit costs</td>
</tr>
<tr>
<td>turnover rate</td>
<td>quality cost</td>
<td>unit times</td>
</tr>
<tr>
<td>staff satisfaction</td>
<td>customer satisfaction</td>
<td></td>
</tr>
<tr>
<td>skills inventory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: AM HRD 1991

Given the company was developing an evolutionary strategy for best practice, it is none the less interesting that this strategy identified an important participative role for employees as summarised in Table 7.13.
Table 7.13
Auto Mechanical
Workforce Participation and Best Practice Reform

<table>
<thead>
<tr>
<th>GOALS</th>
<th>CHANGE</th>
<th>WORKFORCE PARTICIPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>formal evolutionary</td>
<td>employee representatives on World Competitive Manufacturing workshop employees informed of strategy</td>
</tr>
<tr>
<td>OPERATIONAL PRACTICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational Structures</td>
<td>team ethos encouraged</td>
<td>employees trained and encouraged to take direct control of day to day work</td>
</tr>
<tr>
<td>Technology</td>
<td>investment in automated regulator line</td>
<td>employees involved directly in design and operation</td>
</tr>
<tr>
<td>Process Improvement techniques</td>
<td>primarily framework or concept driven</td>
<td>developing through collective bargaining and representative participation on Consultative Committee</td>
</tr>
<tr>
<td>People Management</td>
<td>industrial relations approach</td>
<td>collective bargaining and consultative agreements</td>
</tr>
<tr>
<td>INFORMATION ENABLERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement and control systems</td>
<td>macro data supplemented by measures for specific purposes</td>
<td>representative participation - Consultative Committee</td>
</tr>
<tr>
<td>CULTURAL ENABLERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change leadership</td>
<td>erratic</td>
<td></td>
</tr>
<tr>
<td>Empowerment</td>
<td>not developed in practice</td>
<td></td>
</tr>
</tbody>
</table>

The traditional collective bargaining framework was to continue to be supplemented by Consultative Committees established under the enterprise agreements, which would discuss proposals in line with best practice principles.

Given the finding that workforce participation was associated with plans for each of the workplace reform processes, the question of relevance is, what was the operational experience of such participation? This is the task for the next section.

Workforce Participation

Before providing details on the operation of these workplace reforms it is worthwhile noting the Consultative Committee established under the institutional workplace reform process became an integrating body for each of the three reform processes.
First, the Quality Resolution Sub-Committee of the Consultative Committee was given the task of developing graphs to more clearly show the personal efforts of people on the shop floor in achieving quality related KPIs. Second, KPI's and associated targets recommended from the Consultative Committee to the SBU were included in the Enterprise Agreements. Third, workforce representatives on the Consultative Committee participated in the World Competitive Manufacturing Workshop, which developed the company's detailed commitment to best practice. Despite these initiatives it is important to recognise workforce participation complemented rather than replaced the managerial decision-making and collective bargaining processes.

**Direct Workforce Participation**

As we have seen direct workforce participation at Auto Mechanical was introduced as part of both quality management and best practice reforms. These initiatives included improved communication, consultation with production workers concerning new work practices, and training in quality improvement techniques. However this form of participation was relatively undeveloped in the period under review.

To begin with, the Quality Management Steering Committee established in 1991 aimed to develop a quality awareness program for the company. This was only partly successful as quality continued to be seen almost solely as the responsibility of the Quality Department. The Director Quality blamed this chiefly on the ‘top-down’ approach adopted by the Steering Committee. Accordingly he advocated greater workforce participation for the next phase of quality improvement. Further demonstration of the limitation in this process was the operators of the new computerised window regulator line who remained reliant on the quality professionals to detect, diagnose, and solve quality problems (Director Quality October 2 1993).
Secondly, 8D Problem Solving Teams were trained and established in specified work areas in 1991 to solve particular product-related problem. A typical example is given below:

In February 1991 an 8D team was established to solve a problem identified by a customer of a return spring dislodged from load position in housing. The 8D team established to consider the problem was made up of a team leader, two employees affected by the problem, and two technical employees from production engineering and quality. In October the team concluded the problem was caused 90% by a design fault in the spring, 5% by the operator not adequately testing the product and 5% by operator inattention. Solutions proposed included permanent corrective actions of lengthening the leg of the spring, and updating operator instructions. Action to prevent a recurrence included, ensuring all steps are followed when designing or modifying new assemblies and disciplines are in place to prevent steps being skipped (AM 1991)

These were complimented in 1992, by Productivity Enhancement Process (PEP) teams trained and led by Ford engineers. The first PEP team set up to review and improve the window-regulator rail-fabrication area did produce positive improvements resulted in:

- 75% increase in Ford Falcon rail assembly output per hour
- 10% reduction in production floor space required
- 99% reduction of work in-process (from around 2000 components to 20
- elimination of regular overtime whilst maintaining output levels (AM PEP 1992)

However these two team processes had common limitations on the degree of workforce participation. First, specialists dominated teams and left production employees in the minority. Second, discussion on quality improvements was confined to technical product specific improvement. Finally, the power of the teams was limited to making recommendations to the Quality Department. That employees were willing to play a larger role is demonstrated by employee responses as set out below to the question:

“What changes need to be made to your work area to enable you to produce a better quality product without waste?”

- training for the workers in understanding the whole process
- all managers need to understand production
- more teamwork
- improved communication (Focus Groups February 15 & 16 1993).

By this response employees demonstrated recognition that training and teamwork were important determinants of quality improvement. However, despite training, it appears by 1993 employees had not developed skills to contribute extensively to
quality improvement, nor had management sufficiently encouraged communication or teamwork.

Training of production workers in SPC techniques had began in 1992 but had been limited to periods of production downtime. The Director Quality admitted this resulted in limited outcomes (Director Quality October 26 1993). For example by 1993 only nine operators had been assessed as Completed/Competent in quality techniques while a further 43 were classified as requiring further training (Task Force Consultants 1993).

Direct participation introduced as part of best practice reform was also limited in application. Management maintained the new computerised window regulator line was organised as a Natural Work Team. However it did not act autonomously, operators remained heavily dependent on quality professionals, and work on the line remained task-based.

In summary, as shown in Table 7.14 direct workforce participation introduced under quality management and best practice reform at Auto Mechanical was limited.

<table>
<thead>
<tr>
<th>Methods of Workforce Participation</th>
<th>Extent of Workforce Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>information sharing</td>
<td>Quality Management Steering Committee</td>
</tr>
<tr>
<td>training</td>
<td>specialists some employees</td>
</tr>
<tr>
<td>participation in PEP teams</td>
<td>pilot program – small group initially</td>
</tr>
<tr>
<td>direct task related quality checks</td>
<td>process workers on regulator line trained</td>
</tr>
</tbody>
</table>

Although a Quality Management Steering Committee was established to oversee the promulgation of a continuous quality improvement process throughout the company, by 1993 management admitted the top-down approach had not been successful. There was some evidence training in quality improvement techniques had been effective in equipping individuals with skills required for identification and solution of specific quality problems, however use of these skills was confined to team deliberations on
specific quality problems. The so-called Natural Work Team operating the new computerised window regulator line did not function effectively as a Natural Work Team, particularly with regard to quality. Rather quality specialists in the Quality Department were still relied upon to solve all quality problems. Given this experience of direct participation, what of representative participation.

**Representative Workforce Participation**

Workforce participation under the institutional workplace reform process at Auto Mechanical was introduced principally through the establishment of a company wide joint Consultative Committee. The Committee was initially established in 1989 under the Consultative Agreement negotiated between the company and unions as part of implementation of the restructured Metal Industry Award. It was subsequently reconstituted under the Enterprise Agreement in 1992.

**Joint Consultative Committee 1989-1992**

The Consultative Agreement negotiated between the company and unions in 1989 has been described as a framework agreement as it consisted principally of an agreement to establish a formal structure for consultation between management and the workforce. Committee membership was to consist of a union representation from each section of the plant (seven to eight people) plus six to seven management representatives (Cl.2.6). The Committee was established in May 1989 with fewer managers than expected, three senior managers from Public Relations, Personnel, and Quality, and six union delegates representing the toolroom, assembly, parts and accessories, test and laboratory, and the press shop. To complement this committee, a training sub-committee was established with four management representatives (Financial Controller, Supervisor from Electronic Data Processing, Director of Engineering and the Production Controller) and four union representatives representing quality assurance, and three manufacturing areas (welding, maintenance and assembly).
The functions of the Committee were clearly established by the Agreement. First, the Committee would be a forum for communication between managers and the workforce. The Agreement stated “the Consultative Committee will hear reports by the management and union representatives on a range of issues” (Cl.2.3).

Second, the role of the committee was to discuss issues and make recommendations to management. As stated in Clause 2.5:

> the aim of the Consultative Committee will be to reach agreement to enable recommendations to be made to management so that they may take into account as far as possible the views of the employees before management make final decisions on matter affecting them (Cl.2.5).

The issues for discussion were broadly defined for both parties. From management would come:

- reports on future plans, proposals for new products, current and predicted market conditions, organisational change within the company, plans for new technology, job training, personnel appointments, changes in proposals re company policies, the general situation within the industry, government policy which affects the industry and any other relevant material which would affect the well being and interest of the employee (Cl.2.3).

From union representatives would come:

- regular reports on issues they wish to raise on behalf of employees for the mutual benefit of company and employees (Cl.2.4).

The Committee was not to replace the traditional managerial decision making process, rather these management reports were aimed at ensuring employees “understand the nature and operational characteristics of the enterprise in which they work… and…carry out work effectively and safely” (Cl.6.2).

Table 7.15 summarises the proposed structure of participation in terms of the four elements identified in the framework introduced in Chapter Two.
Table 7.15
Auto Mechanical Structure for Representative Participation

<table>
<thead>
<tr>
<th>Form of involvement</th>
<th>representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level at which involvement takes place</td>
<td>company</td>
</tr>
<tr>
<td>Type of involvement</td>
<td>consultation</td>
</tr>
<tr>
<td>Subject matter</td>
<td></td>
</tr>
<tr>
<td>general situation within the industry</td>
<td></td>
</tr>
<tr>
<td>government policy affecting the industry</td>
<td></td>
</tr>
<tr>
<td>current and predicted market conditions</td>
<td></td>
</tr>
<tr>
<td>future plans</td>
<td></td>
</tr>
<tr>
<td>new products</td>
<td></td>
</tr>
<tr>
<td>company organisational change proposals</td>
<td></td>
</tr>
<tr>
<td>plans for new technology</td>
<td></td>
</tr>
<tr>
<td>changes in proposals re company policies</td>
<td></td>
</tr>
<tr>
<td>job training</td>
<td></td>
</tr>
<tr>
<td>personnel appointment</td>
<td></td>
</tr>
<tr>
<td>other matters of employee relevance</td>
<td></td>
</tr>
</tbody>
</table>

There was joint agreement between management and the union for a representative form of participation at company level. It is also clear it was intended the Committee be consultative rather than decision making upon a broad range of issues affecting the company’s future, both external and internal, as well as specific issues related to employee conditions. Given this agreed structure and function, the next section turns to the operational experience of the Committee.

The Committee began enthusiastically, meeting monthly during 1989 and 1990 as shown in Figure 7.2.
Training of Consultative Committee members, conducted by a mutually agreed external facilitator, preceded the first meeting. This was an unusual process demonstrating the importance placed by both parties on developing an effective consultative process. For the company consultation would ease the burden of change, for the union an effective Consultative Committee would be a positive demonstration to other companies. Meetings were initially very formal with motions were moved, seconded and voted upon. After the first two years of operation enthusiasm appears to have waned a little with only three meetings held 1991 and the same number in 1992. The Director Human Resources explained this decline as a result of other activity within the company as the new international corporate strategy was implemented rather than a rejection of the Consultative Committee (Director Human Resources October 27 1993). Furthermore the Director Human Resource and the union shop-steward devoted considerable time to negotiating the terms of the first Enterprise Agreement (AMWU) shop steward, November 9 1993).

Finally, although there were few formal meetings of the Consultative Committee, issue based sub-committees as shown in Figure 7.3 continued to meet on a regular basis.

---

3 A further amalgamation had created the Amalgamated Manufacturing Workers Union (AMWU)
basis to advise the committee on safety, training, quality improvement and absenteeism.

Figure 7.3

Auto Mechanical CC Sub-Committees
1989-1992

Safety Committee
April 1989-Ongoing

Training Committee
April 1989-Ongoing

Absenteeism
August 1991-EBA 1992

Quality Problem Resolution Team
May 1990-EBA 1992

Source: AM CC 1989-1992

What then of the issues discussed in the committee? A survey of the Minutes shows despite training, the Committee struggled to develop an effective consultative process. Meetings throughout 1989 were dominated by discussion seeking to clarify the role of the Committee through such questions as - should the chair rotate and what was the role of the union. Following a critique by a representative from the State government in September 1989 the Committee drew up the following list of commitments. The list demonstrates the difficulty associated with the transition from a managerial decision making process to a more consultative process:

- We will turn up and be on time
- We will go through the chair to speak
- We will have a printed agenda one-week prior to the following meeting the date of the meeting may be changed by agreement
- We won’t be interrupted
- Special meetings may be assembled by agreement
- We will not blame people
- We will find the problem and look for cause and effect and improvements
- We will voice opinion
- We will make decision based on facts
- We will listen and ask
- The chair will change every three months by vote (AM CC 1989).

Basic employee issues dominated committee discussions as shown in Table 7.16. Issues remained focussed on the immediate work environment rather than at broad company issues, despite an attempt by the Managing Director in November to
broaden the agenda to the future of the company. Job security, training and equity in the distribution of overtime were major issues during 1989. By the end of the year, the Committee was bogged down in domestic housekeeping issues. A representative from the State government attended the February 1990 meeting and stated the Committee needed to extend beyond ‘simple issues’.

Table 7.16

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic employee</td>
<td>no industrial relations issues to be discussed</td>
<td>August 1989</td>
</tr>
<tr>
<td></td>
<td>committee was not a forum for union activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>smoking, gloves, heat – passed to occupational health and safety committee</td>
<td>November 1989</td>
</tr>
<tr>
<td></td>
<td>job security – ongoing issue of concern – management reply re job applications to be advertised initially internally</td>
<td>June, August 7 November 1989,</td>
</tr>
<tr>
<td></td>
<td>overtime – request for policy to ensure equity</td>
<td>November 1989</td>
</tr>
<tr>
<td></td>
<td>supervisor training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>computer systems training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>use of vacant production area, canteen facilities, cleanliness, refrigerator, car parking photocopier purchase, computer installation</td>
<td>November December 1989</td>
</tr>
<tr>
<td>Strategic</td>
<td>presentation by MD</td>
<td>November 1989</td>
</tr>
</tbody>
</table>

Source: AM CC 1989

The experience of the Committee in 1990 to 1992 was similarly chequered. Once again basic employee concerns dominated discussion as shown in Table 7.17.
Table 7.17
Auto Mechanical
Consultative Committee 1990-91
Issues Discussed

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>training sub-committee — video for operator training</td>
<td>August 1990</td>
</tr>
<tr>
<td></td>
<td>induction program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C12 training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Absenteeism</td>
<td>August 1991</td>
</tr>
<tr>
<td></td>
<td>health and safety sub-committee</td>
<td>August 1991</td>
</tr>
<tr>
<td></td>
<td>safety equipment audit</td>
<td>January,</td>
</tr>
<tr>
<td></td>
<td>evacuation procedure</td>
<td>December 1992</td>
</tr>
<tr>
<td></td>
<td>training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>smoking</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>Quality Problem Resolution Team</td>
<td>May to August 1990</td>
</tr>
<tr>
<td></td>
<td>design and display graphs for achievement towards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>targets for KPIs</td>
<td>May 1990</td>
</tr>
<tr>
<td></td>
<td>job rotation</td>
<td>October 1990</td>
</tr>
<tr>
<td></td>
<td>interdepartmental communication</td>
<td></td>
</tr>
</tbody>
</table>

Source: AM CC 1990-1992

The question of how to improve consultation and communication within the company remained a major issue. Basic training concerns of how to best develop training programs, who should be included in training and how English language training should be organised, were the major issues referred to the committee by the training sub-committee. Recommendations from the occupational health and safety sub-committee were principally concerned with operational matters. Although there was some attention given to production issues concerned with quality improvement through the Quality Problem Resolution Sub-Committee, these discussions were chiefly concerned with how to increase the understanding and involvement of employees in achieving the targets set for the seven KPI targets (AM CC 1990).

By 1991 a self-assessment led the committee to the conclusion it was not functioning effectively. It identified three major causes. First, the reorganisation of the company had diverted employee and management attention from the Consultative Committee process. Second, because of work reorganisation within the company, the existing membership no longer represented the new work organisation. Third, collective bargaining remained the principal process for negotiating wages and working conditions. Workforce assessment mirrored this committee conclusion. For example set out below is a cross section of typical comments given in answer to the question:
‘If consultation is to improve at Auto Mechanical what changes need to be made to the role of the Consultative Committee?’

- Members require communication skills
- Work together as a team
- Determine what to discuss as a team and what should be left to other forums
- How to come to positive consultation and agreement
- Decide on the reason for the Consultative Committee
- Know how to run an effective committee
- Need positive achievements
- Develop closer links between management and the shopfloor
- Develop improved communication with the shopfloor
- Complete jobs – don’t get bogged down (Focus Groups February 15 & 16 1993).

These responses indicate committee members recognised there was need to improve both their internal processes and their external communication with the broader workforce.

As a result of these findings it was agreed by all parties the committee should be reconstituted. This was in accord with the agreement reached in the Enterprise Agreement ratified before the Commission in 1992. For example set out below is a cross section of typical comments given in answer to the question –

‘If consultation is to improve at Auto Mechanical what changes need to be made to the role of the Consultative Committee?’

- Members require communication skills
- Work together as a team
- Determine what to discuss as a team and what should be left to other forums
- How to come to positive consultation and agreement
- Decide on the reason for the Consultative Committee
- Know how to run an effective committee
- Need positive achievements
- Develop closer links between management and the shopfloor
- Develop improved communication with the shopfloor
- Complete jobs – don’t get bogged down (Focus Groups February 15 & 16 1993).

These responses indicate a recognised need to improve both their internal processes and their external communication with the broader workforce.

However, before the new Consultative Committee could be reformed, as part of the company’s adoption of the need for best practice reform, a World Competitive Manufacturing workshop was held in January 1992 to which employee representatives on the Consultative Committee were invited. This was the first
involvement of committee members in a major issue concerning the future of the company.

**Joint Consultative Committee 1992-3**

The newly constituted Consultative Committee held its first meeting in February 1992, followed by two more meetings in April and June. There were no meetings in the second half of 1992. Table 7.18 summarises issues discussed within the committee between 1991 and 1992.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic</td>
<td>World Competitive Manufacturing presentations by outside bodies (AMWU, State Training Board)</td>
<td>February 1992</td>
</tr>
</tbody>
</table>

Source: AM CC 1991-2

The first meeting endorsed the Policies for company strategic direction developed at the World Competitive Manufacturing workshop and designed a communication process by which all employees would be informed of these policies. The next two meetings were devoted to development of a strategy to improve committee effectiveness. This included first, extending the knowledge of committee members about environmental influences on the company by arranging for speakers on government policy and training opportunities. Second, to improve internal communication it was decided the committee would organise regular Employee Attitude Surveys, and the committee would write a regular report for the Company Newsletter. Third, to increase employee participation in the committee, a suggestion box would be introduced. Other issues discussed were more narrowly concerned with
basic employee issues such as improving canteen facilities, reducing the use of electricity, developing a new induction program, and considering a Gain Sharing Plan.

Although there were no formal meetings of the Consultative Committee after June 1992 the sub-committees continued to meet. The Training sub-committee became an important part of a detailed plan for employees to increase their skills through training associated with the Engineering Production Certificate (EPC). This resulted in 14 process workers in 1992 and a further 15 process workers in 1993 being enrolled in C12 programs. Females made up 65% of those enrolled in the first year. A considerable percentage of this training was devoted to English language classes aimed at enhancing career opportunities for process workers from non-English-speaking backgrounds. Employees responded positively to this training as demonstrated by the fact that 70% of employees responded in the affirmative to the statement – ‘My supervisor encourages me to obtain further education and training. Support for training is widespread throughout the company’ (Task Force Consultants 1993). Due to these positive outcomes, in 1993 the sub-committee was given responsibility for administration of a government-funded program aimed to help the company identify training plan to assist employees made redundant by company changes.

The Safety sub-committee also continued to meet throughout 1992. It recorded the following achievements:

- development of a new safety plan evacuation procedure
- completion of a safety audit on equipment,
- review of data on workers compensation and lost time injury during the year
- nomination and training of first-aid persons
- training for supervisors in occupational health and safety
- discussion on a smoking policy
- ongoing discussion on day to day safety problems such as placing of ladders, the existence of a blind corner, a leaking roof and hearing tests (Safety Sub Committee 1992).

Thus, sub-committees were more effective as the Consultative Committee struggled with how to develop effective consultative skills and knowledge. The outcome of this experience was a further training program for Consultative Committee members held in February 1993. During this training the committee prepared a new ‘Draft Constitution’ which was taken to the workforce for discussion leading to
endorsement. Through this communication process it was hoped employee knowledge of, and interest in, the Consultative Committee would be developed. The draft Constitution broadened the aims of the committee to include best practice. Thus the aim of the committee was identified as:

- to assist in implementing the world competitive manufacturing policies and to uphold the principles of the credo
- to assist with changes in the workplace to implement world competitive manufacturing policies
- to be the intermediary between management and the workforce (AM CC 1993)

The issues for discussion within the committee were broadened to include:

- training
- gain sharing
- self managing teams
- continuous process of improving communication
- health and safe environment
- quality
- cost
- delivery
- individual rewards and recognition (AM CC 1993)

It was, however, agreed the committee would not involve itself in award related issues which would remain within the purview of traditional collective bargaining. The committee also developed Key Performance Indicators of its own performance. These included:

1. Customer (workforce) satisfaction –
   - number of ideas generated from the workforce per month
   - percentage response time between initial discussion and implementation of change
   - survey of employees
   - number of nominations for Consultative Committee representatives

2. Consultative committee activity
   - regularity of meetings
   - regularity of report-backs
   - regularity of member attendance at meetings
   - adherence to the articles of the constitution
   - number of decisions made
   - number of decision implemented
   - number of items under discussion against items completed
   - time taken for decision against target time set by committee

3. Financial measures
   - hours spent in committee against customer satisfaction, customer benefits and quality indicators (AM CC 1993).
Following this training the Committee met on a regular monthly basis throughout 1993. However, as shown in Table 7.19, discussion remained principally on basic employee issues.

### Table 7.19

**Auto Mechanical Consultative Committee 1993**
**Issues Discussed**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Employee</strong></td>
<td><strong>Industrial Relations</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sick leave payout</td>
<td>April 1993</td>
</tr>
<tr>
<td></td>
<td>reward sharing</td>
<td>May, August 1993</td>
</tr>
<tr>
<td></td>
<td><strong>Housekeeping</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>canteen and washroom cleanliness</td>
<td>May, June, July, August 1993</td>
</tr>
<tr>
<td></td>
<td>distribution of stationary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>paper recycling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>environmental concerns (styrofoam cups)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>keys for conference room</td>
<td></td>
</tr>
<tr>
<td></td>
<td>budget for charity days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>world quality day</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Resources</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>smoking policy</td>
<td>March, May, June, July 1993</td>
</tr>
<tr>
<td></td>
<td>uniforms and safety shoes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>contractors</td>
<td>September, October 1993</td>
</tr>
<tr>
<td></td>
<td>forklift trucks-walkways</td>
<td></td>
</tr>
<tr>
<td></td>
<td>training plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>government funding - training matrix-task</td>
<td></td>
</tr>
<tr>
<td></td>
<td>climate survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Production</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>training for teams (lean production)</td>
<td>November 1993-January 1994</td>
</tr>
<tr>
<td></td>
<td>training plan</td>
<td>March, May, June, July 1993</td>
</tr>
<tr>
<td></td>
<td>government funding - training matrix-TASK</td>
<td></td>
</tr>
<tr>
<td></td>
<td>quality</td>
<td>April 1993- July 1993</td>
</tr>
<tr>
<td></td>
<td>Suggestion Scheme Total Quality Management targets PEP Teams Report</td>
<td>October 1993</td>
</tr>
</tbody>
</table>

Source: AM CC 1993

A Reward System/Suggestion Scheme of $50 a month was agreed to. This was to be paid to any management or activity area could demonstrate outstanding improvements in quality, cost, and delivery. A number of issues were referred to the single bargaining unit negotiating industrial matters, or to the safety sub-committees (smoking, uniforms, and safety shoes, contractors working safely, path of the forklift trucks). By the middle of the year housekeeping issues had again begun to dominate the agenda.
This concentration on basic employee issues was reversed in October when the training sub-committee presented a training plan to the committee. The plan was in the form of a matrix identifying skills achieved and skills required of each employee, together with an individual training plan to assist the company in introducing teams as part of lean production (Task Force Consultants 1993). Despite the importance of this as a strategy issue, the plan was rejected by the workforce in 1994 because of fears for job security.

The only other issues of import discussed during 1993 were at the October meeting when the Managing Director made a presentation about success sharing, the Ford PEP team gave a report of its achievements, and the results of the Climate Survey were presented. Finally at the November meeting it was agreed that the workforce would be trained in lean production principles.

In summary although there was formal commitment from both management and the workforce to representative participation through the Consultative Committee, an effective consultative process proved difficult to implement. As shown in Table 7.20 collective bargaining by full-time union officials remained the principal means by which wages and salaries were negotiated.

<table>
<thead>
<tr>
<th>Change</th>
<th>Method of Participation</th>
<th>Extent of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Management</td>
<td>collective bargaining</td>
<td>commitment to CQI in agreements</td>
</tr>
<tr>
<td></td>
<td>elected representatives on Consultative Committee sub-committee</td>
<td>quality issues</td>
</tr>
<tr>
<td>Institutional Change</td>
<td>collective bargaining</td>
<td>full-time union official supported by shop stewards</td>
</tr>
<tr>
<td></td>
<td>elected representative to the Consultative Committee</td>
<td>advisory body, recommendations accepted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>basic employee issues</td>
</tr>
<tr>
<td>Best Practice</td>
<td>elected representative to the Consultative Committee</td>
<td>included in World Competitive Manufacturing Workshop</td>
</tr>
<tr>
<td></td>
<td>elected representative participation through the</td>
<td>members of training sub-committee considering lean production</td>
</tr>
</tbody>
</table>

Table 7.20
Auto Mechanical
Representative Workforce Participation
1987-1993
The Committee remained advisory to management, however the company did implement several of its important recommendations. Consultation within the Committee remained dominated by basic employee issues. However sub-committees of the Consultative Committee did discuss issues related to quality and training for lean production. Furthermore workforce representatives were included in the company World Competitive Manufacturing strategy setting exercise. Thus representative workforce participation through the Consultative Committee did serve to integrate to some degree the three reform processes, at least as far as discussion of proposed changes. However these discussions had not been substantially operationalised during the period under review.

Workplace Reform and Workforce Participation

This chapter has shown that Auto Mechanical was discussing change associated with all three reform processes under review. However actual change arising from these discussions was minimal, apart from that associated with strategy change imposed by the international parent company. There was some attempt to develop greater quality consciousness among the workforce but this was limited to temporary team processes. There was some discussion of lean production concepts associated with best practice but no operational change had occurred. The major innovation was the establishment of company level Consultative Committees as part of the company-union agreement associated with institutional workplace reform. This Consultative Committee served to make representative participation a central element of the reform processes as it assisted some integration of changes associated with each of the reform processes as outlined in Table 7.21.
### Table 7.21

**Auto Mechanical**  
**Workplace Reform and Workforce Participation**

<table>
<thead>
<tr>
<th>Reform Process</th>
<th>Direct Participation</th>
<th>Representative Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Management</td>
<td>employees trained but knowledge not used</td>
<td>sub-committees on quality</td>
</tr>
<tr>
<td></td>
<td>temporary productivity enhancement teams</td>
<td>agreements include commitment to QQI</td>
</tr>
<tr>
<td>Institutional Workplace Reform</td>
<td>collective bargaining by full-time union officials</td>
<td>workforce election to consultative committee</td>
</tr>
<tr>
<td>Best Practice</td>
<td>training/upskilling for lean production</td>
<td>consultative committee participation in workshop on world competitive manufacturing</td>
</tr>
<tr>
<td></td>
<td>new computerised line</td>
<td></td>
</tr>
</tbody>
</table>

Direct participation was limited to employees being temporary members of specific issue quality teams. Representative participation through the Consultative Committee, however, although supported by both managers and workers was limited in its operation by the inability of worker representatives to focus beyond basic employee issues. Collective bargaining by full-time union officials remained the chief form of negotiating wages and award conditions.

**Conclusion**

This case study has described a business that, in the late 1980s, was faced with an external requirement for strategic change by its parent international corporation. This strategy had important implications for its workforce causing loss of jobs for some and the need to develop more sophisticated technical skills to produce a world competitive quality product. Faced with this imperative management used the opportunity created by quality reform demands from its major customer to encourage employees to ensure quality improvement was a continuous part of their work ethic. Management also used the institutional workplace reform process to establish a joint Consultative Committee to gauge employee response to change. By 1993 there was also evidence that the company was ready to embrace change associated with best practice reform.
Despite the aim of both parties to develop workforce commitment to change through workforce participation, actual change was minimal. This was equally the case with both forms of workforce participation – direct and representative. Despite mutual commitment to more consultation both management and employees found it difficult to translate this commitment into effective action. The difficulty was due primarily to a lack of experience and knowledge among workforce representatives on the nature of company managerial responsibility. This led to resistance by workers to accept greater responsibility for issues broader than their own basic concerns. Furthermore managers were ill equipped to help employees develop the knowledge they required.
CHAPTER EIGHT

AUTO AIR (I)
Competing Through Growth

Introduction

This chapter sets out the introductory research findings from the third case study, Auto Air (AA). The format for this chapter is similar to Chapters Four and Six, dealing respectively with an outline of the company organisation and operations, followed by an account of commercial and other pressures for change.

Auto Air was the only case study included in this thesis to develop an integrated approach to the kind of change termed best practice. This is associated with the fact the company participated - from 1991 to 1994 - in the Australian government’s Best Practice Demonstration Program. This resulted in structural and operational initiatives, which changed the company from a managerial hierarchy typical of mass production organisations, to a company characterised by lean production techniques. This change was achieved without industrial disputation. Given this major restructure which occurred in 1992, information presented in this chapter relates to 1990 to ensure two points in time for comparison. Chapter Nine will present research findings following the changes.
Auto Air: Ownership and Corporate Role:

Auto Air is an Australian owned public company. It was established in 1967 as a private company, subjected to a public float in 1982, expanded into an Auto Air Group in the late 1980s and finally merged with a larger and more diverse Perth based Australian owned company in 1990\(^1\). The merger was undertaken to provide funds for growth and had little effect on the structure of the company. Between 1989 and 1992 Auto Air expanded from a single company to a five company Auto Air Group. This expansion resulted from an increase in, and broadening of, the traditional product market and from an expansion into new product markets. The first new company was established in Victoria in 1989 when increased demand for hoses and pipes required for the air-conditioning systems caused this production to be transferred from Auto Air to a new company. This was followed in 1991 by the establishment of a new company in South Australia (Auto Air, South Australia) at the request of GMH, so that component production could be relocated close to the new South Australian plant. This made JIT delivery requirements easier to satisfy. Also in 1991 the company took over a bus air-conditioning manufacturer in Queensland and a metal products manufacturer in South Australia. Finally, the Group expanded out of the automotive air conditioning market through purchase of a steering systems manufacturer in South Australia (AAG 1992).

Product

The Manufacturing Manager explained Auto Air assembles a broad range of automotive air-conditioning and heating systems into complete air-conditioning Unit Systems for private motor vehicles and trucks. It also produces electronic cruise control systems, and between 1986 and 1990 it produced mobile phones for cars. Around 15% of its product are Original Equipment (OE) with the much larger 85% being Parts and Accessories, including Spare Parts (PA). The company supplied the

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\(^1\) The activities of company with which Auto Air merged are diverse, ranging from the manufacture of; equipment for railways, and mining, clay bricks and tiles, china crockery and hardware and tableware and industrial products, and the cartage and distribution of sporting apparel, footwear and sporting goods.
entire product systems and design to GMH for 14 years from 1976 to 1990, after which this production was moved to South Australia. It has supplied half of the Ford Australia requirements since 1987 (having lost the previous contract to the Ford owned Plastics Plant in 1983). The company has also supplied all of Mazda Australia’s requirements since 1987 and 80% of those of Mitsubishi Motors Australia Ltd since 1981. Finally it supplied 20% of requirements of (the now defunct) Nissan Australia from 1977. The major source of competition within Australia is from component manufacturers owned by the major locally based assembly companies such as Ford Plastics Plant and Japanese owned Nippondenso (now Nippon), (Manufacturing Manager October 13 1992).

Market

The Business Unit Co-ordinator Marketing explained the market for company products is unique for a number of reasons. First, there are factors concerning the local market. Like other Australian automotive component manufacturers, the relationship between the company and its local PMV customers extends beyond a traditional commercial relationship into collaborative design of new product. An additional feature of automotive air-conditioners is they are capable of being added to vehicles after sale and thus Australian based customers include vehicle importers such as Nissan, Isuzu-GM and Hyundai, as well as local PMV producers. Second, the company has an export market. Unlike the other two case study companies Auto Air realised the importance of developing an export market early in the 1980s. To this end it developed a strategic export plan with three elements. Firstly, in 1982 sister companies were founded in the USA and in Canada and in 1987 in the UK and New Zealand. Secondly, export facilities were established overseas beginning with the USA. In 1984 a facility was established in the United States through which the company sold Units for Subaru and Hyundai. This was followed in 1986 by establishment of a similar export facility in New Zealand for Mitsubishi and General Motors, followed by Ford and Mazda in 1990. Thirdly, in 1984 the first joint venture agreement was signed with a Japanese company. By 1990 this export strategy had resulted in the company producing almost 1.5 million Systems Units for global distribution, with specialised Units designed and developed for the Korean Daewoo

Costs

Auto Air divides its costs into three major areas – material, capital, and labour, with overheads included as part of material costs. The Manager Supply explained the company does not rely significantly on technology given its principal assembly function, and thus capital costs are low. The assembly nature of the production process places a heavy reliance upon its 100 core suppliers from which it purchases around 12,000 different line items, over 500 of which are handled monthly. Around 70% to 80% of its component parts are imported, with the most expensive single component costing around $200-$250. This heavy reliance on imports results in high levels of inventory at considerable cost to the company (Manager Supply October 13 1992). The distribution of costs is shown in Figure 8.1.

![Figure 8.1](image)

Source: AA Finance Report 1990

In 1990 cost of materials contributed around 70% of cost of goods manufactured, with capital and labour costs being a much lower contribution of around 15% each. Consequently, to stay competitive in the international market, the company required initiatives to decrease either the amount, or cost of material inputs.
Organisational Structure

The company’s organisational chart for 1990 (AA HRD 1990a), is presented in Figure 8.2.

*Figure 8.2
Auto Air
Organisational Chart-Departments 1990*

Source: AA HRD 1990a

This chart shows Auto Air was structured into five functionally separate departments - Engineering, Quality (separated from Engineering in 1989), Marketing, Finance and Manufacturing. Departments were further divided into 17 functionally determined sub-departments. Departments were formally linked through the computer based MRPII system but otherwise acted independently. The only joint activity was the administration of projects through management teams.

Employment is unevenly distributed between departments as shown in Figure 8.3 (AA HRD 1991a).
In 1990 Manufacturing employed 70% of the 320 employees. This continued until 1992 when a change in company function within the developing Auto Air Group decreased to 61% the contribution of Manufacturing. The second largest department in 1990 was Engineering with a much lower 27 employees; (17 employees had in 1989 been relocated from Engineering to the new Quality Department). Marketing followed with 24 employees and Finance with 13 employees.

**Corporate Plan**

As part of the development of the Auto Air Group the company extended its corporate planning process from a traditional short-term budget process of between six and 12 months to a five-year plan. This was in line with the adoption of a company business philosophy focussed on “the extension, expansion and growth of technologies through a broad customer base in Australia and internationally (AAG 1991a). The need for continuous change was extended to the Plan in the belief that what was needed was a “fluid document, given the substantial expansion in business” [which] has more relevance to Auto Air’s expansion as our market matures” (AAG 1991a). A number of operating philosophies were developed to “control planning, product development, manufacturing, cost control, marketing, administration and financial management”. These were translated into department and individual goals and objectives with...
associated administrative tools to “identify variance to objectives, outside market forces, commercial competition” (AAG 1991a). Performance measurements included - capital expenditure, plant location and/or expansion, personnel development, market objectives, technology objectives, and finally, product expansion and/or diversification.

Alongside the new Plan, the budget process was changed to reflect the need for initial expenditure before growth could occur. Budgets were drawn up for six to 12 month intervals with reviews to occur at regular intervals within this period depending on the item. For example labour costs were assessed by standard hours versus charged hours on a quarterly basis and distributed as a factor of standard manufacturing time (AAG 1991a). On the other hand, project administration in Engineering was assessed against budget monthly in arrears and simultaneously projected forward by six months for comparison to standards.

**Work Organisation** (AAG 1991a)

The Manufacturing Manager stated before work was reorganisation in 1991; production (more accurately termed assembly) was structured according to mass production principles. The company operated a single shift, five days a week assembly process. Planning for production was undertaken by professional engineers, technicians and tradespersons who set production targets, line speeds and maintenance schedules and issued written variations to production. These plans were produced in conjunction with Sales and Marketing using customer schedules, a capacity planning modelling system and JIT daily scheduling. Weekly production scheduling meetings were held between the two departments to discuss timing requirements and any problems that had arisen. Build Plans were developed according to the Materials Resource Planning system (MRPII), and issued weekly to forepersons\(^2\). (Manufacturing Manager October 13 1992).

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\(^2\) Classification was changed to Supervisor and then Team Leader during the time period under review
Experienced buyers within the Supply Department were responsible for materials procurement after discussion with the Purchasing/Materials Management Group and the Engineering Design and Development Group. The company used a range of methods to select component and/or subcontractor sources including vendor selection, vendor bidding, and the Auto Air initiated vendor development program, against a purchasing policy which set terms, conditions, and compliance to standards. The warehouse received inputs, organised for them to be checked by Quality Assurance, and stored them (allocated to an aisle) before delivery to production (picked) according to the daily Build Plan. A fixed location system was operated in which parts and accessories were lot-batched by either suppliers or the warehouse. The warehouse was also responsible for delivery of prototypes to Engineering for checking, and all material movement throughout the factory according to a Master Delivery Schedule linked to the MRPII system. Components were issued from the warehouse directly to the dedicated-product assembly line. Final goods were packaged on the line before delivery to the warehouse. Thus work within the warehouse was primarily administrative and clerical and as such was considered by the production workforce to be a promotion. Finally, supporting all these functions was the Human Resources Department which in 1990 was expanded from a wage and salary administrative role to a more inclusive human resource function. Employment within this department was experience based rather than professionally qualified, for example the Human Resource Manager was a qualified primary teacher who had been with the company for over 10 years having begun work in production, while the two other positions were experienced based administrative positions.

Production was undertaken on both a batch and flow basis with work organised in dedicated lines according to the product being assembled. The number of lines operating depended on the number of products being produced. In any one month 60 different models, in varying volumes, could be required. Lines were split into OE, P&A or Spare Parts (Kits) and were product, customer and model dedicated. For example in 1990 there were two Nissan lines (heater and blower), two Ford lines and two GMH lines. Several small cells were established to handle lower volume products such as truck air conditioners for International Harvester and electronic cruise controls for the GMH Commodore. Two lines were dedicated to use of
specialised testing equipment. Finally, sub-assemblies and parts and accessories were packed into Kits (about 600 per month).

The production process involved assembly of parts (doors, brackets, washers, pipes, springs, rods, clips gaskets and thermostats) to form heaters, coils and blowers. On the evaporator line valves, tubes, brackets, and an air sensor thermostat, were assembled. Detailed written instructions were provided for assembly and there was some, although limited, rotation between tasks, especially in the smaller volume products. Machinery was mainly hand-tools such as air guns, and jigs and fixtures, although there was some technologically advanced equipment for testing pressure coils, leaks, and calibrations. Kit assembly was undertaken using a bill of materials with kits packed to specifications as indicated on computer-linked lists. A shrink pack process completed the packaging, with finished goods being moved by conveyor into the warehouse for despatch.

Thus the work undertaken in production was essentially semi-skilled assembly, using simple machines and hand tools. This resulted in over 80% of the production workforce being semi-skilled and only 8% being trade, technically or professionally skilled as shown in Figure 8.4 (AA HRD 1991b).

![Figure 8.4](image_url)

Auto Air
Classification of Manufacturing Workforce 1990

Source: AA HRD 1991b

Low levels of literacy and numeracy of the predominantly overseas born workforce (75% of the production workforce was from South East Asia) meant the semi-skilled nature of the workforce was maintained. The low skill base of the production workforce was addressed by changes to training introduced in 1992. As this was
associated with institutional and best practice reform they will be explored in Chapter Nine.

Four service departments supported Manufacturing. Comprehensive procedures manuals for account, project, and contract administration connected these departments. Regular meetings were held between the project team and customers and or vendors. Problems were solved at source where possible.

The Business Unit Co-ordinator Engineering explained Engineering was the second largest employing department. It was divided into three sub-departments - Electrical and Technical Services, Engineering Management, and Research and Development. Cross-functional project design and development teams were established for each new project. These design teams consisted of qualified engineers from the fields of design and applications and mechanical/electronics, qualified draftspersons from mechanical and electronics, qualified technicians from metal fabrication, applications, and electronics/electrical, and qualified pattern and model makers. Teams communicated with other relevant personnel during the design phase. A technological interface through CAD/CAM was maintained between the department, its customers, and its vendors. Design changes were controlled through an audit system that ensured all procedures were up to date and changes introduced to the change-flow system were bought onto the process charts immediately. Product testing was performed during the design, prototype, off tool, and production phases, to ensure design specifications were maintained throughout the product-manufacturing period. The department had facilities for laboratory engineering performance testing, field and environment performance testing, durability, and reliability testing. It also had a NATA approved laboratory, testing facilities such as an internal calorimeter room, a wind tunnel, and high technology electronics. The engineering design office, research and development, and performance/durability/reliability testing areas were protected by security-coded entry and 24 hour security surveillance. The company prided itself on its leading edge, environmentally sensitive product design and development. For example in 1989 the company designed the first air-conditioning system (the R134a) capable of meeting emission requirements of the international marketplace (Business Unit Co-ordinator Engineering October 13 1992).
The Manager Quality explained that in 1989, in response to increased customer demand for improved quality, the Quality department was separated from Engineering. The new department consisted of professionally and technically qualified employees (Manager Quality October 13 1992). At the same time the company developed a total quality management plan which assigned the task of developing appropriate performance targets for particular activities to each department thereby “drawing on the concept of cross-functionality and communication” (AAG 1991a). The plan identified quality under three elements – quality planning, process control and supplier development. This is the subject of detailed analysis as part of the quality reform process in Chapter Nine. What is relevant for the current purpose is the company developed a quality assessment process based on current production. Although attribute and variable control charts are still used, their purpose is to establish stability of the process and in turn to monitor the effects of process changes aimed at reducing variation, rather than to focus on final product assessment. Reliability of finished product is both internally and externally monitored and analysed, particularly through warranty returns, but the company is developing plans to test all products in process at least once a year. Although the Quality Department was seen as responsible for co-ordinating quality for the company, especially by updating the quality manual, a quality auditing process was being developed to enable departmental self-assessment. Process capability indexes were being developed to replace traditional economic indicators such as rate of return, turnover, and profit as measures of quality performance. Finally, the company had developed a supplier performance index to monitor and assess supplier quality in respect of delivery, quality, innovation, price, and performance.

The marketing department handled all liaisons with customers, including negotiations over delivery schedules, service requirements and warranty. The Department was staffed principally by technically and professionally qualified employees supported by experienced administrative staff. Employment within the department was halved in 1989 with closure of the mobile-phone facility. Finally, the Finance Department was responsible for all costing, budgets and accounts, general administration and data processing (including the computerised Management Information System).
Thus, although the work system employed within Auto Air was based upon a traditional division of labour, by the late 1980s attempts were being made to break down departmental barriers. Little attempt, however, had been made to decrease the gap between manufacturing and support departments. The assembly nature of production had resulted in a predominantly low skilled workforce as demonstrated by the fact almost 60% of the workforce was classified at the least skilled level as shown in Figure 8.5 (AA HRD 1991c).

![Figure 8.5: Auto Air Pty Ltd Classification of Workforce 1990](image)

Source: AA HRD 1990c

These employees undertook repetitive, task based production activities with little ability to exercise autonomy. This contrasted with a much smaller number of high skilled professional and semi-professional employees who were able to vary their tasks and to make decisions concerning their work.

**Management**

Management was structured into a multi-level hierarchy, as shown in Figure 8.6 (AA HRD 1991d).

A Management Committee, made up of a Chairman, the Managing Director, and the five departmental Directors, managed the company. There were 11 departmental managers reported to these Directors. There were seven forepersons reporting to the Production Manager, with four leading hands and two second-in charge persons assisting them. The company merger in 1990 did not change this structure apart from
adding another Director to the new Auto Air Group Board that reported to the Board of the new owner.

![Auto Air Organisational Chart-Management 1991](image)

Management was responsible for all decision making within the company. Preparation and administration of the forward plan was the responsibility of the Management Committee. The Management Committee set the broad objectives for the Five-Year Business Plan. The construction of a more detailed document dealing with major elements of capital expenditure, plant location and/or expansion, personnel development, market objectives, technology objectives, product expansion and/or diversification objectives, was undertaken by a smaller group of managers. Budgets set by departments were reported up to the Management Committee and down through the management group “with specific extraction of data for those relevant departments and personnel, for example production forecasts, to on-line” (AAG 1991a).
The company appointed an Accounts Manager for each customer and each project. This Manager was responsible for establishing an inter-disciplinary management team to administer the project, contracts, and customer account. Two principal management personnel typically administered a project. One manager was appointed from Sales and Marketing to handle commercial aspects such as timing decisions and information flow, the other manager from Engineering was responsible for project management, project design and timing.

By the late 1980s there appeared to be some change in the way managerial decision making was processed, at least at the first-line level of production management. This is demonstrated by typical responses as follows to the question:

‘What are the main task of your current job as foreperson’:

Traditional - control
- decision making and maintenance of safety regulations
- ensure correct procedures are followed
- solve day to day problems
- ensure daily work requirements are achieved efficiently
- ensure line discipline and housekeeping
- ensure efficient manpower usage
- allocate jobs to worker
- solve quality problems
- ensure components conform to specification
- satisfying customer requirement
- plan - liase with, planners and managers

New - leadership
- communication and high level of information flow
- maintaining a secure job for everyone
- inform employees of their ongoing performance
- challenging current methods and procedures to gain improvements (AA 1990b).

These responses show forepersons were still heavily influenced by technical means of controlling the production process, however some attention was also being given to people oriented processes requiring improved communication. This latter role was more evident in typical responses by forepersons in answer to the question:

‘What tasks are performed by a foreperson?’
- trainer
- parental figure
- leader
- work with union representative (AA 1990b).
To ensure forepersons could perform this role of a leader, communicator, counsellor and trainer, it was recognised new skills were required. Typical responses as set out below were given to the question:

‘What skill are required of forepersons?’:

People related
- negotiation
- communication
- delegation
- counselling
- understanding company industrial relations policy
- interview skills
- skills to promote harmonious relationships
- human relations
- ability to represent both management and employees

Technical
- technical and work procedure skills
- planning, organising, directing and controlling
- costing and purchasing
- production planning (AA 1990b).

These responses demonstrate that as early 1990 the front-line level of management had accepted the need for change. This incorporated a role change from controlling ruled by technical requirements, to leading guided by a human centred approach.

On the other hand, a continued reliance by the workforce on forepersons as decision-makers was still evident in 1992. Employee responses are as set out below were given to the question –

‘What are your main concerns about moving to a team structure?’
- who will decide when we can go to the toilet
- who takes over when the team leader is absent
- who is going to arrange the jobs people do daily
- how do we get people to think for themselves
- how will overtime be distributed (Focus Groups January 3 & 4 1992).

These responses suggest the degree to which employees had been empowered to make decisions was limited and this led to a high degree of fear amongst employees as to their decision-making capabilities.
The Manager Human Resources explained the company did not have a formalised employment relations strategy until the Human Resource Management position was created in 1990. The personnel role before this time was primarily concerned with managing payroll. Recruitment occurred as needed without any systematic process for determining the suitability of candidates. Most personnel functions were handled by forepersons. The company reacted to government legislation rather than embarked upon a proactive approach (Manager Human Resources August 21 1992). This is demonstrated by company action on Equal Employment Opportunity, Training and Occupational Health and Safety.

First, let us look at Equal Employment Opportunity. In 1989 the company developed a formal EEO Policy and Plan (AA HRD 1994). However no action was taken to action these policies until 1991 when, as part of the institutional workplace and best proactive reform processes, positive strategies to enhance EEO were developed. Consequently, details are left to the appropriate section in Chapter Nine.

A second example is training. Although in 1990-the company spent 1.9% of payroll on training, thus exceeded the government requirement of 1.5%; there was no formalised training program until 1990 when one was developed as part of institutional workplace reform. Consequently, details are left to the appropriate section in Chapter Nine. The training in 1990-1 was mainly individual or small group training on specific issues. Training undertaken included:

- health and safety issues - smoking in the workplace and first aid
- quality - FMEA, Ford 8D Problem solving, Process Improvement Groups, Quality Management Systems Auditing
- technical skills - forklift and articulated vehicle, stock control, import and export documentation and activity-based-cost-accounting
- technology – computer skills, CAD, MRPII,
- personnel, and industrial relations training - workplace literature, effective presentations skills, award restructuring, supervisory skills and senior executive skills, leadership skills, report writing, counselling and retrenchment skills.
Third, there was Occupational Health and Safety. The Health and Safety Consultant explained occupational health and safety was more developed having been assisted by adoption of a new policy in 1986 focused on the three principles of Prevention, Participation, and Rehabilitation. At this time an Occupational Health and Safety nurse had been employed. Since then the responsibility of this position had grown as a preventative approach developed. In the same year a joint Occupational Health and Safety Committee was established with workforce representatives chosen by management. This was changed to elected representation in 1987 when designated work groups, with health and safety representatives, were established in accord with the Victorian Occupational Health and Safety Act 1985 (Health and Safety Consultant October 28 1992). These initiatives had resulted in improvements to the company’s health and safety record as shown in Table 8.1.

<table>
<thead>
<tr>
<th></th>
<th>1986</th>
<th>1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of accidents/injuries</td>
<td>200</td>
<td>82</td>
</tr>
<tr>
<td>Loss incurred claims</td>
<td>143</td>
<td>21</td>
</tr>
<tr>
<td>Loss incurred claims per capita</td>
<td>58%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

Source: AA HRD 1991

The total number of accident/injuries reported was reduced from 200 in 1986 to 82 in 1991. Similarly, loss incurred claims were reduced from 143 in 1986 to 21 in 1991. This represented a reduction in the incidence rate of loss incurred claims per capita from 58% in 1986 to just under 8% in 1991.

These improvements resulted in the company being chosen by the Department of Labour in 1989 as one of the top 20 companies in ‘producing a caring culture’ (Health and Safety Consultant October 28, 1992). By 1991 the health and safety levy had been reduced to 3%. However it was recognised the focus on health and safety improvement had waned in the early 1990s as other changes occurred. To this end in 1992 the Safety Committee was reconstituted. This is discussed further under the institutional workplace reform process in Chapter Nine.
Wages and Industrial Relation

The Metal Industry Award set wages and working conditions for all production employees. Over award payments of around 20% above the minimum are paid, with overtime regularly averaging a further 20% of gross wage. Remuneration for qualified specialists and managers was negotiated individually and based upon market rates. This was found to cause some difficulties when the company restructured in 1991 as differentials in pay for people performing the same work became obvious (Manager Human Resources September 28 1992). This is discussed in relation to best practice reform in Chapter Nine.

The manufacturing facility was not unionised until 1985 when several employees from the warehouse joined the then Storemen and Packers’ Union [later renamed the National Union of Workers - (NUW)]. Immediate strike action was undertaken resulting in extension of union membership to the rest of production workforce through the Australian Society of Engineers (now FIMEE). This resulted in the total unionisation of Manufacturing, with three elected shop stewards representing employee interests. A third union, the Transport Workers Union (TWU) represented two transport drivers until the function was contracted-out in 1991. In 1990 management adopted a pragmatic response to industrial relations- “our concern is for getting it right and having it work, not so much getting it legitimised in the industrial relations arena” (Manager Human Resources September 28 1992). Accordingly, shop stewards handled most industrial problems with little reference to the full-time officials.

Pressures for Change

By the late 1980s Auto Air had expanded its market to the extent it needed to establish new companies, separate from, but part of an Auto Air Group (AAG). The pressure for change thus arose principally from within the company, fuelled and assisted by external pressures for change.
In adopting a growth strategy the company rated its achievements in terms of its growth in market share and return of equity rather than profits. Indeed the company merger in 1990 was undertaken to provide funds for further growth given the company’s lack of profitability. Data provided by the company (AAG 1992b) shows market share for Auto Air was steady at around 2% until 1980, after which it expanded rapidly to reach 35% of the market in 1991. In 1990 sales turnover reached $106 million, a 10-fold increase from the $10 million sales achieved in 1981. This resulted in yearly sales increases of more than 25%, as shown in Table 8.2.

**Table 8.2**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (SM) AA</th>
<th>Sales (SM) AAG</th>
<th>Return On Equity (%) - AA</th>
<th>Return On Equity (%) - AAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>50,000</td>
<td>N/A</td>
<td>22</td>
<td>N/A</td>
</tr>
<tr>
<td>1988</td>
<td>63,000</td>
<td>N/A</td>
<td>8</td>
<td>N/A</td>
</tr>
<tr>
<td>1989</td>
<td>87,000</td>
<td>N/A</td>
<td>42</td>
<td>N/A</td>
</tr>
<tr>
<td>1990</td>
<td>106,000</td>
<td>N/A</td>
<td>25</td>
<td>N/A</td>
</tr>
<tr>
<td>1991</td>
<td>82,258</td>
<td>119,258</td>
<td>----</td>
<td>24</td>
</tr>
<tr>
<td>1992</td>
<td>73,500</td>
<td>97,000</td>
<td>----</td>
<td>31</td>
</tr>
<tr>
<td>1993</td>
<td>75,900</td>
<td>107,000</td>
<td>---</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: AAG 1993a

The decision to expand into an Auto Air Group decreased the sales from Auto Air by around $24 million to a low of $82 million in 1991, with a further decline to $73 million in 1992. However in 1993 a small recovery to almost $76 million was recorded. The initial sales reduction in 1991 was balanced somewhat by an increase in sales for the Auto Air Group of $13 million to $119 million. However this was followed by a reduction of $21 million to $97 million in 1992. This decline was also reversed for the Auto Air Group in 1993 with sales increased by $10 million. The downturn in 1992 appears to have been principally a result of the recession, while the increase in 1993 was due principally to the increase in exports that by 1993 had reached 14% of Auto Air Group product. The company had eight new customers; it was selling in 18 new markets and had developed several strategic alliances. Moreover it had plans to increase exports into Asia to 25% by 1996-7 through regional offices in China, Kuala Lumpur, and the UK. Given the corporate role adopted by Auto Air it is important that overall sales of the Auto Air Group are recognised against the decline for the original company.
The need for funds for expansion meant return-on equity fluctuated throughout the period under review. A high of 42% return on equity was recorded in 1989, after which it was reduced and fluctuated around 25%. Despite these fluctuations the positive export growth strategy resulted in the company amassing $129 billion of export credits by December 1993. This led the Managing Director to comment that as an Australian manufacturer, the company has been successful in developing substantial markets for automotive, bus and mobile systems, electronic and associated components (AAG 1993b).

Despite growth of the Auto Air Group as a whole, the strategy had adverse consequences for employment within Auto Air. Prior to establishment of the first new company in 1989, employment within Auto Air reached a peak of 395 persons. The establishment of a company to produce hoses and pipes previously produced by Auto Air, followed by the relocation of product for GMH to South Australia, resulted in a significant decline in the number of employees required by the original company. The closure of the mobile-phone facility operated by the company further reduced employment. Between 1989 and 1990, 93 employees left the company. Further reductions led to a low overall employment of 160 employees in 1992. Retrenchments were chiefly from manufacturing. This resulted in between 1991 and 1992 a reduction from 73% to 61% in the contribution of the manufacturing workforce. At the same time the contribution from engineering increasing from 9% to 14%, and from 5% to 7% from quality. Two interesting developments were the increase from 6% to 7% in the contribution from Marketing and from 4% to 8% from finance. This reflects the changing role for Auto Air from being principally a manufacturing company to the growth in its corporate responsibility for Auto Air Group. The effects on employment are shown in Figure 8.7. The reduction in employment within Auto Air was offset by employment within other companies in the Group - indeed some employees from Auto Air were relocated to the new companies. Once again the recession took its toll on employment levels in 1992, but by 1993 there were signs of recovery for employment levels in both Auto Air and Auto Air Group.
The second environmental pressure came from customer quality demands forcing the company to implement new quality processes. Ford (Australia) Pty Ltd. was most forthright in applying this pressure and eventually conducted PEP training courses for production employees. The company response was developed as part of a total quality program and so details are outlined in Chapter 9.

The third and final environmental pressure came from industrial relations changes. The new bargaining structure required a more sophisticated collective bargaining process at the enterprise.

Summary

In summary, Auto Air is an Australian owned company established in the 1960s when government incentives for the local automotive industry were positive. Management adopted an export growth strategy in the early 1980s, which resulted in the development of significant markets overseas. The company also demonstrated flexible adaptation to customer demands by producing air conditioning Systems Units for a variety of models and vehicle types. Faced with expanding market opportunities a decision was taken in the late 1980s to extend beyond one manufacturing site into an Auto Air Group, acquiring funds for this growth by merging with a larger, more diversified and profitable Australian owned company. This strategy required change by Auto Air as product was relocated to new companies, employment opportunities
were reduced and the skills required of remaining employees were changed as Auto Air adopted more corporate responsibilities.

The extent and type of change required placed pressure on the company to reassess its existing work organisation, which had been built on the Fordist mass production principles shown in Table 8.3.

| **Auto Air** |
| Work Organisation-Mass Production Model |

| Departments | segmented, functional departments and sub-departments but connected by regular meetings and a comprehensive procedures manual |
| Process | standardised by industrial engineers  
short time cycles  
no preventative maintenance  
hand assembly rather than technologically assisted |
| Job design | narrow, individual, tasks based  
limited job rotation and flexibility  
some promotion prospects into warehouse |
| Skills and Depth of Knowledge | principally semi-skilled production workforce supported by technically and professionally qualified |
| Product design | superior performance systems units  
designed to environmental standards  
model specific style options  
no design for manufacturability  
cross functional teams of specialists although no production representation  
technology sophisticated design capability |
| Human Resource Management | reactive, but some sign of change |
| Industrial Relations | adversarial but moving to accommodating |
| Product Quality | quality inspection post production  
no continuous quality improvement  
no employee involvement |
| Market Segment | local Australian market plus importers plus exports |
| Management | centralised hierarchical  
dominated by managerial prerogative |

Greater co-ordination was required between departments to ensure delivery of a quality product in a timely manner. This was achieved through regular meetings between departments, the production of a comprehensive procedures manual, and establishment of cross-functional teams for planning purposes. However these teams did not include representation from Production. Moreover the production process remained standardised by industrial engineers into short time cycles with little or no built in preventative maintenance. Job design remained narrowly task based determined by the assembly nature of production, although jobs for specialist support staff were more varied. Knowledge and skill requirements remained influenced by the
assembly nature of the work although the increasing responsibility of the company for Auto Air Group and increased quality requirements placed pressure on the company to rethink its skill base.

In this environment although product development emphasised sophisticated, environmentally acceptable, Unit Systems, and despite some mention of design for manufacturability, the production-based workforce was not included in these teams. Furthermore, although the company had begun to develop a more process-oriented approach to product quality this was not well developed. Human Resource Management and Industrial Relations were showing some sign of a managerial acceptance of the need for a more accommodating approach but little operational change had been recorded. Consequently, management and the workforce remained separated by the centralised and hierarchical management, which was embodied with responsibility for all decision making.

Thus the decision in the late 1980s to expand the number of companies into an Auto Air Group required substantial changes to the way work was organised, the skills of the workforce, and decision making process within the pre-existing single company. In this context the decision by the company to take advantage of opportunities presented by the three workplace reforms under analysis is understandable. The next chapter discusses these changes.
CHAPTER NINE

AUTO AIR (II)
Integrated Reform and Participation

Introduction

From a company perspective, the transition from a single company into a world competitive Auto Air Group (AAG) required considerable change for both managers and employees. As the company sought to expand its exports, product quality had to be improved. Employees had to be encouraged to adapt to change including loss of employment for some and an upgrading of knowledge and skills for those continuing in employment. Managers and employees needed to work together to develop an integrated package of reforms. To assist this change the company utilised each of the workplace reform processes – quality management, institutional workplace, and best practice. This chapter sets out in detail the reforms. Similar to the other two case studies, the chapter is structured as follows. The first section presents major changes introduced under each of the reform processes. These are summarised in Table 9.1. The second section explores changes in terms of workforce participation. The conclusion reached is threefold. First, these reforms did not occur in a vacuum, rather they assisted in realisation of a business decision made in the 1980s to expand the production and scale of components both within Australia and into the export market. Second, changes associated with each reform process were at first fragmentary but were later integrated into a complete package of reforms. Third, workforce participation was important in integrating the reform processes.
Table 9.1
Auto Air Workplace Reform

<table>
<thead>
<tr>
<th>DATE</th>
<th>Quality Management Reform</th>
<th>Institutional Reform</th>
<th>Workplace Reform</th>
<th>Best Practice Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td></td>
<td>Two tier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>Quality Excellence Committee</td>
<td>Award</td>
<td>Restructuring Agreement – increased flexibility</td>
<td>Managing Director – Industry Study tour</td>
</tr>
<tr>
<td>1990</td>
<td>departmental targets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>design for manufacturability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Assessment Teams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ford Q101 and GMH B+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>ongoing development of 1990 initiatives</td>
<td>Enterprise Agreement (1) ratified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>Ford Q1</td>
<td>teams – production</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>business units – support</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>managerial restructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>five year plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>equal employment opportunity initiatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>Supplier Quality Assurance Program</td>
<td>Enterprise Agreement (2)</td>
<td></td>
<td>Australian Best Practice Demonstration Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Quality Management Reform

The Manager Quality stated that in 1990 the company was awarded a Ford Q101 Supplier Quality Rating, which was upgraded to Ford Q1 rating in 1992, as well as a GMH, QSA B+ rating. Despite this external quality accreditation, the company decided that further internal change was required for continual process improvement to become a reality (Manager Quality October 13 1992). How these changes were implemented is of interest to this thesis.

The quality management reform process at Auto Air occurred in two major stages. The first stage introduced processes linked to quality improvement in isolation from other changes being introduced by the company. This phase is dealt with in this section. The second stage integrated all three reform processes – quality management, institutional workplace, and best practice. This second stage is discussed under the sections dealing with the two other reform processes.
The Manager Quality explained that the loss in 1983 of the Ford Australia contract had created concern within the company, however it did not result in any significant change until the late 1980s (Manager Quality October 13 1992). The catalyst for eventual change included two major pressures. First the decision by the company to expand into the export market and second, the decision by PMV assemblers to demand new internal quality processes from suppliers. Table 9.2 provides a summary of these changes in terms of the Ford Quality System Standards (1990) (given the importance to the company of regaining the Ford custom lost in 1983).

<table>
<thead>
<tr>
<th>Strategy Required</th>
<th>Change Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROCESS and PRODUCT QUALITY</strong></td>
<td></td>
</tr>
<tr>
<td>evaluate process capability (current - post production assessment)</td>
<td>Quality Excellence Strategy Committee</td>
</tr>
<tr>
<td></td>
<td>Process Improvement Groups</td>
</tr>
<tr>
<td></td>
<td>Departmental targets</td>
</tr>
<tr>
<td>product control (traditional)</td>
<td>Quality Excellence Strategy Committee - control charts</td>
</tr>
<tr>
<td></td>
<td>Process Improvement Groups</td>
</tr>
<tr>
<td>process control</td>
<td>Corrective Action Requests (CAR)</td>
</tr>
<tr>
<td>engineering specification tests</td>
<td>Taguchi methods</td>
</tr>
<tr>
<td>analyse and document returned parts</td>
<td>departmental targets</td>
</tr>
<tr>
<td>8D reports</td>
<td>training in 8D techniques</td>
</tr>
<tr>
<td>Statistical Process Control to monitor processes and improve capability</td>
<td>training in SPC and in Ford PEP</td>
</tr>
<tr>
<td>plans for continuous improvement</td>
<td>Quality Excellence Strategy Committee</td>
</tr>
<tr>
<td><strong>PLANNING</strong></td>
<td></td>
</tr>
<tr>
<td>feasibility assessments</td>
<td>Quality planning process</td>
</tr>
<tr>
<td>Failure Mode and Effect Analysis</td>
<td>training in Failure Mode and Effect Analysis</td>
</tr>
<tr>
<td>control plans</td>
<td>Quality Excellence Steering Committee and departments</td>
</tr>
<tr>
<td>preliminary process capability studies</td>
<td>improve preliminary process capability</td>
</tr>
<tr>
<td></td>
<td>design for manufacturability</td>
</tr>
<tr>
<td>written process monitoring and control instructions</td>
<td>Group Quality Procedures manual</td>
</tr>
<tr>
<td>process to monitor and control sub-supplier quality</td>
<td>supplier guide; supplier performance index</td>
</tr>
<tr>
<td></td>
<td>encourage local suppliers</td>
</tr>
<tr>
<td><strong>DOCUMENTING</strong></td>
<td></td>
</tr>
<tr>
<td>Key quality disciplines</td>
<td>plan targets developed</td>
</tr>
<tr>
<td>Document control items</td>
<td>Group Quality Procedures manual</td>
</tr>
</tbody>
</table>
Management Related Change

In 1989 an Auto Air Group Quality Excellence Strategy Committee (QESC) was established. This Committee reported to the Group Committee of Management. It’s role was to “establish broad-based, company-wide implementation of Total Quality Management systems to achieve ‘Best in Class’ status with the customers” (AAG 1992a). The Committee was made up of senior managers with no workforce representation. This suggests that initially quality improvement was seen as a managerial responsibility. The outcome was a Group Plan aimed to achieve International Standard recognition through achieving ISO9001 quality accreditation.

In 1990 a new Auto Air Group Quality Procedures Manual was produced. This differed from other Quality manuals because as well as product quality standards through written specifications for purchase materials and finished products it added process requirements for documentation of on-line quality procedures.

In 1991 Group Plan targets for quality were established for particular activities within departments. This aimed to link departmental responsibility for quality by “drawing the concept of cross-functionality and communication into the total quality management process” (AAG 1991b). The plan was broken down into three principal elements –

- **quality planning** – feasibility analysis, Failure Mode and Effect Analysis, quality function deployment, design review, design of experiments, Taguchi methods
- **process control** – statistical tools and their use for process variation and reduction
- **supplier development** – improve preliminary process capability (Ppk), improve first-off Off Tool Sample (OTS) submissions, improve Controlled Process Capacity (Cpk), (AAG 1991b).

Under this strategy the Group sought to improve production process control by using statistical tools to monitor process outputs. Control charts were used to establish process stability and in turn to monitor the effects of process changes aimed at reducing variation. Once process stability was established, process capability indexes were used to ensure variation was kept within targets and to reduce waste. This also addressed the issues of engineering specification and process capability compatibility. The plan was built on the premise that the establishment of cross-functional activities
would lead to total organisational commitment to quality (Manager Quality October 13 1992).

As well as these Group management initiatives Auto Air as a single entity within Group introduced change. Unlike the other two case studies, Auto Air management devolved responsibility for improving internal quality to each department. Each department was asked to develop quality improvement targets relevant to their own activities. This was to include target improvements for quality planning, process control, and supplier development, with particular attention to waste reduction. Initially it was expected emphasis would be on improving engineering specifications and process capability compatibility, and reducing variation, with a request departments consider product design according to the capability of the production process. This is often termed ‘design for manufacturability’ (Manager Quality October 13 1992).

To support these changes management introduced a number of other changes:

1) Six accredited auditors were employed to assist with the auditing and reporting of quality.

2) A Statistical Process Control program was developed. This introduced process controls through on-line measurement using –

- X–bar-R-charts to monitor process characteristics requiring ongoing monitoring
- P-charts to identify total line defect rates. This information formed the basis of Pareto analysis and assisted a program of ongoing defect prevention rather than defect detection
- Cause and effect brainstorming tools to identify possible areas for improvement and assist in problem resolution

3) A procedure to handle Corrective Action Requests (CAR) to resolve non-conformance of product to engineering specifications, customer standards, or testing conditions, was developed in accordance with the Auto Air Group Quality manual. Emphasis was placed upon clearly identifying the origin of quality problems and facilitating problem resolution (Manager Quality October 13 1992).

Finally, the company produced a Supplier Guide with basic requirements for the supplier family. The index again went beyond simple final product analysis to include five performance indicators: - delivery, quality, innovation, price, and performance. It
was planned suppliers below a rating of 98% would be counselled and joint discussions held to establish revised targets. Vendor engineering teams, vendor tracking systems and off-tool tracking assisted the process.

Management also adopted the view suppliers have knowledge and experience can be used to the mutual benefit of the supplier and customer. The Quality Assurance Manual states suppliers have a:

rich source of manufacturing experience, technical ability, and development ingenuity…Auto Air… welcomes constructive suggestions and actively encourages their participation in the design and development through the tools of Quality Function Deployment and Failure Mode and Effect Analysis (AA Quality Department 1992).

To this end the company established a management sub-committee of engineers, production, purchasing, marketing and quality assurance staff to which vendors could present technological innovations. Thus the SQA program developed by Auto Air not only placed emphasis on more rigorous checking of input quality, but also providing opportunity for joint customer-supplier innovations (Manager Quality October 13 1992)

Employee Related Change – Production

In 1990 Process Improvement Groups (PIGs) were established. These Groups consisted of employees from both production and stores who volunteered to join a group. They were trained in SPC techniques to identify and solve quality problems and were to meet weekly. The outcome of these PIGs is discussed later in this Chapter.

In 1992 Ford engineers undertook intensive training for all production employees in the Ford Productivity Enhancement Process (PEP).

Employee Related Change – Specialists

In 1990 quality specialists were trained in FMEA, 8D problem-solving techniques, SPC techniques, and in-group dynamics. This resulted in training in quality
improvement being in 1991 the single largest contributor to company expenditure on training.

As well as changes directly related to quality management processes, other changes that affected quality were introduced as part of both institutional workplace reform and best practice. They are mentioned here because of their relevance to quality improvement with details provided under appropriate sections of this Chapter.

In 1991 production was reorganised into Semi-Autonomous Work-Groups (SAWGs) in accordance with the principles of lean production associated with best practice reform. Responsibility for Continuous Quality Improvement (CQI) was devolved to these SAWGs.

Also in 1991 employee agreement to the change to semi-autonomous work-groups was negotiated with unions through the enterprise agreement as part of institutional workplace reform.

Thus by 1991 Auto Air had begun major reforms to change its focus from post-production quality assessment to process quality improvement. First, a new approach to both customers and suppliers was developed portraying all parties as an integrated family. Second, the Quality Manual was rewritten as a process, rather than a control, manual. Third, plan targets were developed for particular activities that recognised cross-functionality between tasks and departments. Fourth, managers, specialists and production workers were trained in quality improvement techniques such as SPC, FMEA, 8D problem solving, and cross functional, Process Improvement Groups of production workers and specialists were established.

Table 9.3 presents a summary of workforce participation introduced under quality management reform.
Table 9.3
Auto Air
Workforce Participation and Quality Management Reform

<table>
<thead>
<tr>
<th>Participant</th>
<th>Form of Participation</th>
<th>Workforce Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>1989 Quality Excellence Strategy Committee</td>
<td></td>
</tr>
<tr>
<td>Production workers</td>
<td>training</td>
<td>volunteers for Process Improvement Groups in Statistical Process Control and 8D</td>
</tr>
<tr>
<td></td>
<td>direct task</td>
<td>productions workers implement Corrective Action Requests</td>
</tr>
<tr>
<td></td>
<td>involvement</td>
<td>Process Improvement Groups established with volunteers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Process Improvement Groups integrated into teams under best practice reform</td>
</tr>
<tr>
<td>Specialists</td>
<td>training</td>
<td>Taguchi methods, Statistical Process Control, Failure Mode and Effect Analysis and 8D.</td>
</tr>
</tbody>
</table>

There was strong management support for increasing the involvement of workers in continuous quality improvement. This is clear from the early establishment of Process Improvement Groups of volunteer process workers and the emphasis placed on training these volunteers. It is also interesting that over time these temporary quality improvement groups were transformed into permanent teams; this will be explored later. Given this intent, the question is once again – how effective was this form of participation in assisting workplace reform? This will be pursued following discussion of changes associated with the other two reform processes.

**Institutional Workplace Reform**

Auto Air became unionised only in 1985. Consequently it was slow to participate in the decentralised bargaining. Nevertheless, it did take part in several sets of negotiations which became progressively more significant in terms of facilitating company change programs. The two enterprise agreements were ratified by the AIRC. Agreements reached are summarised in Table 9.4.
## Auto Air
### Institutional Workplace Reforms

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>TWO TIER 1987</th>
<th>AWARD RESTRUCTURE 1989</th>
<th>ENTERPRISE AGREEMENT (1) 1991 AIRC ratified</th>
<th>ENTERPRISE AGREEMENT (2) 1993 AIRC ratified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>wage increase – $10 plus 4%</td>
<td>wage increase – 3% plus 10</td>
<td>wage increase –4.5% plus 4.5%</td>
<td>wage increase – 4%</td>
</tr>
<tr>
<td></td>
<td>payment by Electronic Funds Transfer</td>
<td>no reclassification</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>change in pay cycle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>reschedule Rostered Days Off</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>driver training</td>
<td>major work reorganisation into production teams</td>
<td>commitment to skills training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reduce demarcation between Production and Warehouse</td>
<td>teams committed to continuous quality improvement</td>
<td>continued commitment to teams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>continued commitment to quality improvement – Process Improvement Groups</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Two Tier

The first agreement was negotiated in 1987. Multiple negotiations occurred between the personnel officer and full-time officials assisted by local shop stewards of each of the three newly established unions. It is not surprising given the lack of experience in such negotiations the agreement was limited to the common industry agreement employees would be paid by Electronic Funds Transfer. However an Employee Participation Group (EPG) was established in 1988 to assist future negotiations.

### Award Restructuring

The second agreement was made in 1989 as part of the Award Restructuring process. Negotiations were conducted between the newly appointed Manager Human Resources and full-time union officials assisted by shop stewards, with some input from the EPG. Negotiations occurred separately with the two major unions. The Agreement was significant in that both unions agreed to reduce demarcations between
the Production and Warehousing functions by allowing some flexibility between the two areas as follows:

- a storesperson would be upskilled as a driver for relief purposes
- several production employees would be upskilled as forklift drivers
- production employees could replace absences in the warehouse provided overtime under full staffing levels would not be affected
- warehouse employees could work on end packaging areas and pick up from the production lines as long as they were not required to work in the production process
- assembly line workers could enter the warehouse and draw their own supplies (Manager Human Resource August 21 1992).

Thus the agreement introduced some important production related changes showing a willingness by employees to introduce flexibility rather than be restrained by job demarcations.

Apart from this initial implementation of the restructured Metal Industry Award there were no employee reclassifications. However it was agreed a joint Auto Air Group Award Restructuring Steering Committee and a joint Auto Air Award Restructuring Working Party Committee would be established to explore the possibility of future skills-based reclassifications. These Committees were to function in addition to the existing EPG, with a focus on the development of a skills-based training plan.

**Enterprise Agreement**

The third Agreement was the Enterprise Agreement signed in 1991. The Agreement was negotiated through a Single Bargaining Group (SBU) consisting of management, represented by the Human Resource Manager, the Manufacturing Manager, and two shop stewards supported by full-time union officials. The Agreement was ratified before the Commission in December 1991 as the Auto Air Site Agreement - Restructuring and Productivity, and was implemented in January 1992. It resulted in a major reorganisation of work into semi-autonomous work groups (SAWGs). Employees agreed to:

- accept and participate in the implementation of a restructuring of the plant layout, departments and jobs which would result in the adoption of a semi autonomous team concept (AA & FIMEE, NUW & TWU 1991).

Also included in the Agreement was:

- a commitment by employees to continue to participate in the quality based PIGs
- the acceptance of a rescheduling of Rostered-Days-Off from a Friday to Monday
- the acceptance of a change to the pay cycle
- continued commitment by both managers and employees to the Award Restructuring process (AA & FIMEE, NUW & TWU 1991).
The new work organisation removed the division between manufacture of product in Production and its storage in Warehouse and Distribution. It established four SAWGs (called teams) within Production, two of which were customer based (Ford/Mazda and Isuzu/Hyundai, and MMAL/GMH), with the other two being special purpose teams (receiving/despatch and evaporator) servicing customer-based teams. It recognised training of all new team members was required to ensure members were multi-skilled in both assembly and warehouse tasks. This was to be co-ordinated by the joint Working Party.

Employees did express reservations about the move to teams. Set out below are typical concerns raised by employees in response to the question:

“What issues do you think team members will have to decide?”

- How will stores and production work together
- How will we get the consumables every morning
- Who replaces the storemen when they go on strike
- How do we resolve union disputes
- How do we become trained in all functions
- How will overtime be divided between the teams
- “Will this means we have to work harder”
- What will happen to the slower worker
- Can we make a decision to extend our tea breaks
- What if people do not want to change their jobs
- What happens to our jobs if the teams don’t work
- What will happen to health and safety (Focus Groups A January 3 & 4 1992).

These responses suggest employees were not against the move to teams but were concerned about how it would work in practice. What would happen to traditional job demarcations, how would they become trained in all tasks required, and to what extent were they protected if the teams were to fail? Underlying these responses was the question of how would decisions be made when the traditional decision-maker, the foreperson, became a team leader whose job it was to make decision jointly with the team. However as there was no opposition to the change it appears it was accepted change was necessary.

**Productivity Agreement**

The final Agreement negotiated as part of institutional workplace reform was the 1993 Productivity Agreement. The SBU negotiating the Agreement was made up of two
Managers from the Human Resources department and Manufacturing. The union remained represented by two local shop stewards supported by full time union officials as required. The Agreement reiterated the commitment of parties to changes negotiated as part of the 1991 Site Agreement, with a further commitment from unions that members would increase their skill levels in order to:

- undertake all duties in the skill structure so the team can use those skills on an at-need basis
- undertake training after hours if it could not be done during normal hours at single time subject to attendance at training courses being voluntary (AA, FIMEE, NUW 1993)

On top of the wage increase management agreed to a team bonus of an additional 25% of the first year’s cost saving to be paid for any cost saving resulting from any improvement activity.

It is clear from this discussion both management and unions at Auto Air accepted the need for a dramatic work reorganisation. It is also clear both recognised the mutual benefit would result and the need for sharing of these benefits. To this effect the agreements sought to compensate employees for change and to provide some security of employment for those willing to undertake training for multi-skilling. The Agreements were facilitated by institutional reforms introduced by the AIRC enabling unions and management at the enterprise to negotiate mutual gains outcomes. Accordingly the first demonstration of increased workforce participation was through union representation. What these agreements also enabled was support by both management and employees of a consultative process through the establishment of joint Consultative Committees as well as employee involvement as team members. This is summarised in Table 9.5.
It is clear institutional workplace reform at Auto Air was supported by workforce participation. Accordingly a more detailed exploration of the practice of this relationship is appropriate. Before so doing the nature of the third workplace reform process – best practice – is presented.

**Best Practice Reform**

As explained in Chapter Eight the expansion of Auto Air into the Auto Air Group was accompanied by development of a broader long-term strategy. This was assisted in 1989 by participation of the Managing Director of Auto Air Group in an automotive industry study tour of companies in the USA that had adopted principles of lean-production. However it was not until January 1992 that there were any observable change to company operations. The Manager Human Resources explained the delay as caused not by a lack of willingness to change but because of the magnitude of the change (Manager Human Resources July 1 1993). This required managerial and employee support for the change. A summary of the changes undertaken as part of

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1 The same study tour attended by the Managing Director of Auto Electrical mentioned in Chapter 5.
best practice reform is provided in Table 9.6. These are explained in more detail below.

<table>
<thead>
<tr>
<th>GOALS</th>
<th>Auto Air Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>formal, integrated strategy developed in 1992</td>
</tr>
<tr>
<td>OPERATIONAL PRACTICES</td>
<td></td>
</tr>
<tr>
<td>Organisational structures</td>
<td>permanent teams –(semi-autonomous-work-groups)</td>
</tr>
<tr>
<td>Technology</td>
<td>significant investment planned within a year</td>
</tr>
<tr>
<td>External relations</td>
<td>driven by competitive considerations</td>
</tr>
<tr>
<td>Process improvement techniques</td>
<td>guided by the concept and the people</td>
</tr>
<tr>
<td>People management</td>
<td>integrated human resources/industrial relations approach</td>
</tr>
<tr>
<td>INFORMATION ENABLERS</td>
<td></td>
</tr>
<tr>
<td>measurement and control systems</td>
<td>macro data supplemented by measures for specific purposes</td>
</tr>
<tr>
<td>CULTURAL ENABLERS</td>
<td></td>
</tr>
<tr>
<td>Change leadership</td>
<td>steady change leadership</td>
</tr>
<tr>
<td>Empowerment</td>
<td>direct employees have substantial or full control over own work</td>
</tr>
</tbody>
</table>

This summary shows the company embraced an integrated change process in conformance to best practice principles. First, the strategy adopted was formal and integrated. Second, permanent teams were established for both direct and indirect employees. Third, significant investment in technology was planned. Fourth, external relations were driven by competitive considerations. Fifth, the company developed an integrated human resources/industrial relations approach to people management. Sixth, macro data was supplemented by measures for specific purposes. Seventh, both managers and union representatives demonstrated steady change leadership. Finally, direct employees were empowered to have substantial or full control over their own work.

The section below provides a detailed description of the Strategy developed by the company and the organisational restructure. Outcomes from this strategy as perceived by the company conclude this section. Details of the changes to people management and employee empowerment are provided in the section dealing specifically with workforce participation associated with best practice reform.
Strategy

In 1992 the Executive management team released an integrated ‘Five Year Plan’ for the Auto Air Group. The Manager Human Resources stated this Plan actually formalised a strategy that had been evolving for some years rather than producing a totally new strategy divorced from existing changes (Manager Human Resources July 1 1993). The Mission adopted for the Group was stated as follows:

Auto Air will design, manufacture and supply to the global automotive industry components and systems which will meet the highest of its customers’ expectations in quality, value and technology (AAG 1992b).

Along with this strategy Corporate Goals were identified. These were:

- To compete in the global economy
- To produce high quality and reliable products delivered on time
- To undertake continuous improvement in all activities
- To support individual initiative and excellence within a team building environment
- To provide:
  ⇒ appropriate returns to shareholders
  ⇒ the provision of value to customers
  ⇒ satisfying and rewarding work to employees
  ⇒ rewarding and profitable business for suppliers.

Although developed by the executive management team, the Managing Director explained the strategy to all employees in small discussion groups allowing for employee response (Manager Human Resources July 1 1993).

The strategy adopted by the company recognised the importance of developing its employees. This is illustrated by the action taken on training for literacy and numeracy and on providing the means for female employees to take advantage of skills development opportunities. First, turning to literacy and numeracy of employees. In 1991 the company obtained government support to develop literacy and numeracy of its employees through classes run by the Australian Migrant English Services. The 30 employees who had tested ‘poor’ in reading and writing skills were placed in literacy and numeracy classes for three hours per week during normal working hours (Jones 1994). This was followed by development of a comprehensive training schedule estimated to cost almost 60% of the company budget for the ABPDP reform project (Manager Human Resource July 1 1993). Second, turning to equal opportunity. The company adopted an integrated approach to equal employment opportunity and affirmative action into all aspects of company activity. For example
training for upskilling took particular notice of the importance of women to the company “upskilling of the existing employees…particular recognition of the fact women form an integral and important role within the company” (AA HRD 1994). In accordance with this approach between 1992 and 1993 a number of changes were introduced including the:

- elimination of sex demarked jobs traditionally associated with some equipment and machinery through the skills based classification structure.
- broadening of the scope of duties for secretaries into administrative roles. This included attendance at meetings, liaising with customers on basic technical matters and developing basic engineering knowledge of skills relevant to the company product.
- replacement of all sexist and male titles with gender free skills based titles.
- introduction of a structured literacy and numeracy training program to allow for family and private commitments.
- introduction of some flexibility in the application of conditions of employment to accommodate family and personal needs. For example sick leave could be taken in single days without medical certificate and time could be taken off during the day to attend short appointments without loss of pay if it was prearranged with the team leader.
- increase in the ability to undertake part time employment
- inclusion of females in training courses dealing with the principles of the Systems Unit
- inclusion of females on the Consultative Committees (AA HRD 1994).

The outcome of these measures was that there was a 40% increase in female attendance in literacy training. By 1993 all but three of 16 women working in production were assessed at the C13 skills level, with the remaining women awaiting assessment to higher skills levels and two females trained to drive and operate forklifts.

In 1992 AA was successful in its submission, based on the Group Plan, to become part of the Australian Best Practice Demonstration Program (ABPDP). In its submission the company stated the purpose of the best practice project was to adopt lean production principles:

> to develop a workplace culture which accepts, adopts and practices the philosophy of Lean Manufacturing in place of the traditional Western production system (AA 1992).

The proposal reiterated the specific business objective:

> to raise the level of quality, productivity, time usage, cost effectiveness, and people abilities to a level which is comparative to the world best component manufacturers system (AA 1992)

The key activities to be undertaken as part of the project were stated as:

- an extension of lean manufacturing and teams
- the development of performance measures

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4 Postscript: In 1994 the company was awarded the Business Review Weekly Affirmative Action Award
Thus, by the end of 1992 AA had not only adopted the rhetoric of the Group strategy but had also taken positive steps to ensure translation of the rhetoric into practice. Moreover, although management developed the Strategy, it was communicated to the workforce as a two-way communication process. Finally, union support was required. The company also showed it was not concerned about external scrutiny of its strategy.

**Operational Practice**

As the first step in implementation of this strategy in 1992 a major organisational restructure was started. This work reorganisation took place in four stages. In the first stage, as mentioned above, production was reorganised into Semi-Autonomous-Work-Groups. In the second stage support services were similarly restructured into semi-autonomous-work-groups (termed business units). In the third stage departments were reorganised into three principle streams of activities. In the final stage a managerial restructure occurred. These stages are described in detail below.

**i) Stage One.**

The first stage of the restructure was reorganisation of production. This was negotiated through the enterprise agreement and implemented in January 1992 (AA & FIMEE, NUW & TWU 1991). The new production process replaced the previous flow-lines with four self-managing teams. This is shown in Figure 9.1.
Two of the teams were customer-based [Ford/Mazda and Isuzu/Hyundai, and Mitsubishi (MMAL) and GMH]. The third team, because of the complexity associated with the many suppliers to this essentially assembly plant, remained as a receiving and despatch team. It was the company’s intent to reduce suppliers by introducing a smaller, and local, ‘family of suppliers’, and thus eventually this team would be again reorganised to form a third customer-based team. However, this had not been achieved during the time under review. The fourth team housed the company’s only evaporator unit required by each of the customer-based teams. This team was reorganised into a customer-based, MMAL, team in June 1992 following purchase of several new evaporators. There was also a small group formed including a production engineer, a maintenance fitter, an apprentice fitter, and a tool store co-ordinator to assist the teams. All team leaders reported to the Manager Manufacturing. The position of Manager Warehouse was removed as part of the reorganisation. Finally, management identified six goals for the teams aimed to increase motivation. The six goals were customer satisfaction, integration, change in workplace culture and environment, employee involvement, skill formation, and continuous improvement.
Each of the two customer-based teams was made up of 20 employees, mainly process workers, a small number of warehouse and stores employees, and a production planner. Thus three previously separate functions (production planning, assembly and storage) were bought together under one process. Each team had a team leader chosen by management, however employees were given the opportunity to join the team leader of their choice. This did cause an initial difficulty with one team leader being the choice of most employees, and management having to encourage some employees to volunteer for the alternate team. However within six months, no member of this team wanted to leave it when they had the choice to joint the newly created third customer-based team (Manager Human Resources September 28 1992).

Each team was responsible for total product assembly for the specified customer. This included internal materials movement, assembly, despatch of final product to the receiving team, and communication with the customer. It was the stated intent that all employees would be trained to be multi-functional and multi-skilled to provide teams with maximum internal flexibility. A process worker was trained and promoted as a trainer to ensure this training was co-ordinated. Finally, the physical layout of production was changed to locate sub-components close to production.

Turning to the receiving and despatch team. This team had only 11 employees given its role was reduced to dealing only with external customers and suppliers not with internal materials movement. The team worked closely with the Quality Department in line with the new QOSS, especially as it concerned ‘off-tool samples’ of new subcomponents. By 1993 the team had only nine members and reduced functions, but still existed as a separate team.

A cultural change to assist the structural change was planned in the restructuring process. First, physical reorganisation of the manufacturing facility was achieved not by using external contractors but rather by employing volunteer employees and managers from the company during the Christmas shutdown to reposition storage and repaint the facility. Meetings of team members, specialists, and managers followed this before the teams began. During Focus Groups held in January 1991 typical employee responses were as follows to the question:
‘What needs to be done to assist the successful implementation of teams?’

- Communication needs to improve to provide links between teams
- Employees need to be better informed of the team concept
- Employees need to be encouraged to positively support the team process
- What happens if you don’t want to work in a team?
- How are roles within a team determined?
- Employees need to be trained in all skills
- A system for relieving workers needs to be developed
- Workers need to be encouraged to be innovative
- Quality standards need to be clear and understood by all
- Language skills needed to be improved (Focus Groups A January 3 & 4 1992).

These responses suggest employees recognised the need for group dynamic and communication skills as well as technical skills if they were to perform as a SAWGs. In response a flexible training program was designed in consultation with each team. It was also agreed to hold brief team meetings at the beginning and end of each day for the purpose of discussing job scheduling and other issue. Finally, a literacy training program for the largely overseas born workforce was designed.

Thus the company developed a training and communication strategy it hoped would assist a cultural change to complement the structural change.

ii) Stage Two

The second stage of the restructure was reorganisation of separate service departments into cross-functional SAWGs (business units). This restructure was introduced in June 1992. The new structure replaced the previous separated departments of Engineering, Production Engineering, Marketing, Technical Support and Service, Drafting and Design, and Purchasing, with three customer-based business units (GMH, Ford/Mazda, and Mitsubishi). This is shown in Figure 9.2.
Each Business Unit had a co-ordinator appointed by management. These co-ordinators reported to the Manager Engineering, and the Manager Sales. The Team Leader from each of the three production teams was also considered to the part of the Unit, although not on a permanent basis. Production Team Leaders were expected to attend weekly meetings with Business Unit Co-ordinators as the means to developing the concept of ‘design for manufacturability’. A fourth Business Unit was added in 1993 to provide specialist support in testing and laboratory areas.

The size of the Business Units varied from nine employees (Mitsubishi) to 15 (Ford/Mazda), with 13 servicing GMH. Each Unit included a specialist from Marketing, Engineering, Service, Technical, Drafting, Production Engineering, Patterns, Purchasing, and a secretary. There was a shared representative from After-Market, Technical Support, Electronics, and Drawing. Within a year a further, smaller, Business Unit of Specialists was created. This consisted of specialist engineers and technicians/technical officers who had previously been located in the quality testing area of the Quality Department. Once again this reorganisation was accompanied by the physical relocation of specialists into an open-plan office located closer to production. There was also a secretary shared between the Units.
This reorganisation resulted in much greater resistance than in production. The following responses were typical of those given in response to the question:

‘What are your main concerns about moving to the new business unit structure?’

- Loss of status
- Loss of secretarial support
- Open planned office does not ensure privacy
- Production team members do not understand
- Physical move to a new building
- Different employees receive different remuneration
- Engineers do a different job and need to be separated (Focus Group B October 14 1992).

It is clear from these replies that specialists were less prepared than production employees to accept the changes introduced by the reorganisation. Objections from specialists centred upon their lack of status and autonomy from the change rather than concern as to whether they had the skills for team interactions. This led to the company embarking upon a number of further changes to encourage a leadership style by both specialists and managers. The most significant was the adoption of a ‘Leadership 2000’ training course designed to develop “a strong group of leaders within the company capable of ensuring continued growth and competitiveness in a team based organisational environment” (AA 1992b).

The reorganisation into Business Units did not affect the structure of several departments. This included the Departments of International Accounts, Finance/Management Information Systems, and Quality Assurance (although the creation of the fourth business unit in 1993 removed the quality test area from the Quality Assurance Department). Within Manufacturing several departments also remained intact - Human Resources and Supply.

iii) Stage Three

The third stage of the operational practice restructure began in 1992. This reorganisation aimed to develop cross-departmental links by producing three clusters of activity:

- **customer opportunity and product development** - Departments of Engineering, Sales and International Business.
- **product development and product manufacture** - Departments of Finance and Human Resource Management.
- **product manufacture and customer supply** - Departments of Quality, Supply and Manufacturing.
Although functional responsibility did not change, it was hoped a strategic planning focus would develop within these clusters. Departmental groupings appear to suggest management envisaged, first, the international customer market would be built upon state-of-the-art technology through engineering. Second, product development was seen as having both people and cost related components. This explains company commitment to the institutional workplace reform. Third, it appears management envisaged a link between production and logistics in ensuring quality of both product and delivery scheduling of inputs from suppliers and outputs to customers. A further advance in this area was the adoption of a scheme to encourage local suppliers to the Whitegoods industry to expand into the automotive industry (Business Unit Coordinator Marketing October 12 1992).

iv) Stage Four

Finally, in mid 1992 a managerial restructure of the Auto Air Group created an executive management team to function as a strategic planning group. The Auto Air Group Strategy team comprised six Directors – three non-executive and three executive directors (Managing Director, Financial Director, and Operations Director). Reporting to these Directors were eight senior managers from Auto Air representing Engineering, Sales, and International Business (to the Managing Director); Human Resources, Quality, Supply, and Manufacturing (to the Operations Director) and Finance (to the Finance Director). The new structure is shown in Figure 9.3.
Auto Air
Organisational Chart-Management, July 1992

Figure 9.3

Source: AA HRD Organisational Chart 1992
Thus implementation of reforms in line with best practice reforms principles within Auto Air encompassed a broad range of change associated with an organisational restructures. This changed the production process to one built on lean production principles. This is summarised in Table 9.7.

**Table 9.7**

<table>
<thead>
<tr>
<th></th>
<th>MASS PRODUCTION Pre 1992</th>
<th>LEAN PRODUCTION-1992</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management</strong></td>
<td>centralised – hierarchical</td>
<td>centralised flat</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>standardised by industrial engineers</td>
<td>standardised by teams</td>
</tr>
<tr>
<td><strong>Product Design</strong></td>
<td>superior performance systems units designed to</td>
<td>superior performance systems units designed to</td>
</tr>
<tr>
<td></td>
<td>environmental standards no design for manufacturability</td>
<td>environmental standards design for manufacturability</td>
</tr>
<tr>
<td></td>
<td>management and industrial engineers</td>
<td>encouraged by production team-business unit interface</td>
</tr>
<tr>
<td><strong>Market Segment</strong></td>
<td>local Australian market developing export and joint</td>
<td>local Australian market developing export and joint ventures</td>
</tr>
<tr>
<td></td>
<td>ventures</td>
<td></td>
</tr>
<tr>
<td><strong>Departments</strong></td>
<td>segmented, functional</td>
<td>integrated, cross functional</td>
</tr>
<tr>
<td><strong>Product Quality</strong></td>
<td>quality inspection post production no continuous</td>
<td>TQM built into semi-autonomous work teams for continuous</td>
</tr>
<tr>
<td></td>
<td>quality improvement no employee involvement</td>
<td>quality improvement</td>
</tr>
<tr>
<td><strong>Job design</strong></td>
<td>narrow, individual, tasks based limited job</td>
<td>broad, multi-tasked and multi-skilled flexible</td>
</tr>
<tr>
<td></td>
<td>rotation and flexibility</td>
<td></td>
</tr>
<tr>
<td><strong>Skills and Depth of</strong></td>
<td>low skills in production emphasis on experience</td>
<td>emphasis on developing high skill base through formal</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>rather than qualifications in specialist support</td>
<td>training and experience</td>
</tr>
<tr>
<td><strong>Human Resource</strong></td>
<td>Reactive</td>
<td>progressive-especially in training, and equal employment</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td></td>
<td>opportunity</td>
</tr>
<tr>
<td><strong>Industrial Relations</strong></td>
<td>adversarial- strong union</td>
<td>co-operative</td>
</tr>
</tbody>
</table>

First, management became flatter although it was still centralised. Second, more employees became involved in product and process design as departments were integrated into cross-functional units. This also resulted in jobs being designed on a broader skill basis. These links suggested improved communication flows between functions and established the basis for ‘design for manufacturability’. Third, these new teams and business units were customer-based in an attempt to improve communication with both customers and suppliers. This was further developed in 1993 when teams were computer-linked to the customer by Electronic Data Interchange. Greater flexibility in work allocation was made possible by the replacement of task based jobs with skill based work. Finally industrial relations
became less adversarial as a co-operative approach to enterprise agreements was developed.

Although it is difficult to precisely assess the outcome of these changes for Auto Air it is interesting that in 1993 the performance self-assessment results, as summarised in Table 9.8, were recorded.

Table 9.8
Auto Air Group
Performance Target Status—September 1993

<table>
<thead>
<tr>
<th>Performance Target 1992/3</th>
<th>Status Sept 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>markets serviced-exports</td>
<td>products sold in 18 new markets</td>
</tr>
<tr>
<td>sales</td>
<td>18% increase over 1992</td>
</tr>
<tr>
<td>new products</td>
<td>increase in refrigerant models</td>
</tr>
<tr>
<td>market share.</td>
<td>New orders, eg Magna, will see growth</td>
</tr>
<tr>
<td>strategic alliances</td>
<td>four or five new relationships</td>
</tr>
<tr>
<td>customers</td>
<td>eight new customers 1992-3</td>
</tr>
<tr>
<td>customer perception</td>
<td>better but fragile</td>
</tr>
<tr>
<td>delivery performance</td>
<td>erratic but higher focus</td>
</tr>
<tr>
<td>quotation success rate</td>
<td>achieved Commodore and Magna</td>
</tr>
<tr>
<td>product development and manufacturing lead time</td>
<td>improving slowly under more control</td>
</tr>
<tr>
<td>productivity and efficiency -</td>
<td>lower than target but slow improvement</td>
</tr>
<tr>
<td>product costs</td>
<td>slightly improved</td>
</tr>
<tr>
<td>work-in-progress</td>
<td>reduced, further improvement needed</td>
</tr>
<tr>
<td>out-of-stock incidence</td>
<td>reduced substantially</td>
</tr>
<tr>
<td>inventory levels, inventory turnover</td>
<td>targets not achieved</td>
</tr>
<tr>
<td>warranty</td>
<td>not yet controlled</td>
</tr>
<tr>
<td>scrap/rejects</td>
<td>no measurable improvement</td>
</tr>
<tr>
<td>skills and training</td>
<td>increased and more relevant</td>
</tr>
<tr>
<td>job satisfaction</td>
<td>increasing</td>
</tr>
<tr>
<td>motivation</td>
<td>growing</td>
</tr>
<tr>
<td>communication</td>
<td>inadequate but more honest and issue focussed</td>
</tr>
<tr>
<td>frustration</td>
<td>focussed on inability to solve problems</td>
</tr>
<tr>
<td>teamwork/co-operation</td>
<td>progressing, more customer focussed</td>
</tr>
</tbody>
</table>

Source: AAG 1993a

Sales increased between 1992 and 1993 by 18%, with product being sold in 18 new markets and eight new customers added. There were new orders for the Magna, the new GMH model and new Mitsubishi model. There had also been an increase in the number of models supplied and several new strategic alliances had been forged. Customer perception of product had improved, although it was recognised that further effort was required. On the other hand delivery performance, product development and manufacturing lead-time required further attention. Productivity and efficiency showed some improvement but needed continuous attention. There was some
reduction of work-in-progress and out-of-stock incidence and a slight improvement in product costs, but targets for inventory and turnover had not been reached. Warranty was still a problem, as were scrap and rejects. Training had resulted in increased workforce skills, increased job satisfaction and motivation, and more teamwork and co-operation. However it was recognised that successful problem solving required better communication.

Thus by 1993, improvements had been recorded for the Auto Air Group related to the changes introduced. What is interesting is what was the relationship between these reform and workforce participation? Table 9.9 shows workforce participation was associated with best practice reform.

<table>
<thead>
<tr>
<th>GOALS</th>
<th>CHANGE</th>
<th>WORKFORCE PARTICIPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>strategy</td>
<td>formal, integrated strategy developed 1992-</td>
<td>workforce informed through briefings</td>
</tr>
<tr>
<td>OPERATIONAL PRACTICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>organisational structures</td>
<td>permanent teams –(SAWGs)</td>
<td>employees in teams representation through union</td>
</tr>
<tr>
<td>technology</td>
<td>significant investment planned within a year</td>
<td>representative participation through Consultative Committees</td>
</tr>
<tr>
<td>external relations</td>
<td>driven by competitive considerations</td>
<td>employees in teams directly dealing with customers and suppliers</td>
</tr>
<tr>
<td>process improvement</td>
<td>guided by the concept and the people</td>
<td>employees in teams representation through unions</td>
</tr>
<tr>
<td>techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>people management</td>
<td>integrated human resources/industrial relations approach</td>
<td>co-operative approach to unions representative participation through joint consultative groups employees in PIGs</td>
</tr>
<tr>
<td>INFORMATION ENABLERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>measurement and control</td>
<td>macro data supplemented by measures for specific purposes</td>
<td>employees in teams</td>
</tr>
<tr>
<td>systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CULTURAL ENABLERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>change leadership</td>
<td>steady change leadership</td>
<td>new management leadership role</td>
</tr>
<tr>
<td>empowerment</td>
<td>direct employees have substantial or full control over own work</td>
<td>participation in teams</td>
</tr>
</tbody>
</table>

It is evident employees participated on a daily basis as team members as well as being represented on a number of Consultative Committees. Given this the question of
relevance is what was the experience of this participation. This is explored in the next section.

**Workforce Participation**

Each of the workforce reforms implemented by Auto Air was associated with some form of workforce participation. The experience of participation at Auto Air shared some characteristics with the other case studies as it complemented rather than replaced collective bargaining by unions representing employees and managerial decision-making. However differences in approach within Auto Air are also evident. First, local shop stewards played a larger role. Over time effective team processes served to reduce the need for unions as alternate sources of authority (Shop Steward FIMEE September 21 1992). Second, management accepted increased workforce participation required a new leadership style at all levels of management. For example typical responses from first line managers were as set out below to the question - ‘**How do you think your job will change with award restructuring?**’

- Greater level of responsibility
- Less job pressure as responsibility is dispersed
- More involvement in training and problem solving
- Move to coaching, counselling role of work teams
- More time spent on monitoring progress of teams and helping to assess competencies
- Change from direct supervision to a co-ordinator, trainer, technical advisor role
- A more supportive role (AA HRD 1990b).

It was accepted that this required managers to develop new skills. This is demonstrated by typical responses to the question – **What new skills will be needed to carry out your new job?**:

- Broader managerial skill
- Co-ordination
- Training
- Industrial relations
- Communication (AA HRD 1990b)

Accordingly, there is evidence managers accepted that workers required a supportive managerial culture for increased workforce participation to be successful. The company did provide such skills training for both employees and management. This had been largely ignored in the other two case studies. Third the company experimented with different forms of participation over time. Fourth, communication
was improved to ensure employees were informed of changes before they occurred. Finally, workforce participation, both direct and representative, became an important integrating factor in the reforms. However there were differences in approach and outcome between direct and representative participation as described in the next section.

Direct Participation

Direct workforce participation by individual workers at Auto Air was took a number of forms. First there was direct participation of employees in quality circles, termed Process Improvement Groups (PIGs), as part of quality reform. Second there was direct participation of employees in cross-functional, customer-based SAWGs, as part of institutional workplace and best practice reform. The next section explores company experience with direct employee involvement in PIGs.

Process Improvement Groups

PIGs were established in 1990 to explore suggestions for process improvements and to make suggestion for change to management. Specific quality issues targeted for improvement included - reduced scrap and downtime, improved methods and safety, and reduced customer problems. Each PIG was made up of a leader chosen by management (usually a foreperson or leading hand), two process operators from the immediate area under analysis, plus a representative from another area and a representative from the Production-Engineering Department. Each Group met for three hours, once a week. Management gave a commitment no employee would be made redundant as a result of any suggestions arising from the PIGs. To encourage employee participation the company offered to send all members of the PIG judged to have made the greatest contribution to the annual Calsonic Quality Circle Conference in Japan to present their achievement.

Recommendations from the PIGs throughout 1990 and 1991 resulted in significant cost savings for the company as shown Table 9.10. Overall more than $370,000 savings were made as a result of recommendations from the PIGs. Although this
resulted in lesser overall cost reduction for the company as management had agreed employees displaced by recommendations would be transferred to other sections of the company.

Table 9.10
Auto Air
Process Improvement Group Projects 1990-1991

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>JOB</th>
<th>ACTION</th>
<th>SAVINGS</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Redesign</td>
<td>P&amp;A</td>
<td>small parts packaging</td>
<td>$10,240</td>
<td>February to May 1990</td>
</tr>
<tr>
<td>Labour</td>
<td>Sub Assembly</td>
<td>reduce two operators</td>
<td>$115,400</td>
<td>June to September 1990</td>
</tr>
<tr>
<td>Labour</td>
<td>Assembly line</td>
<td>reduce one operator</td>
<td>$57,700</td>
<td>September to October 1990</td>
</tr>
<tr>
<td>Process Redesign</td>
<td>Production –general</td>
<td>re-use and sell boxes</td>
<td>$29,700</td>
<td>September to October 1990</td>
</tr>
<tr>
<td>Job Redesign</td>
<td>Production</td>
<td>combine three labels into one</td>
<td>$10,518</td>
<td>October to November 1990</td>
</tr>
<tr>
<td>Labour</td>
<td>Assembly line</td>
<td>reduce one operator</td>
<td>$57,700</td>
<td>October to December 1990</td>
</tr>
<tr>
<td>Process redesign</td>
<td>P&amp;A</td>
<td>reduce rework kits</td>
<td></td>
<td>May to November 1991</td>
</tr>
<tr>
<td>Process redesign</td>
<td>Assembly line</td>
<td>jig and process improvement</td>
<td></td>
<td>June to November 1991</td>
</tr>
<tr>
<td>Process redesign</td>
<td>Warehouse</td>
<td>new packaging system</td>
<td></td>
<td>June to November 1991</td>
</tr>
<tr>
<td>Process redesign</td>
<td>Production</td>
<td>deletion of testing process</td>
<td>$2,500</td>
<td>June to October 1991</td>
</tr>
<tr>
<td>Process redesign</td>
<td>Warehouse</td>
<td>cardboard recycling</td>
<td>$58,000</td>
<td>June to November 1991</td>
</tr>
<tr>
<td>Job Redesign</td>
<td>Production</td>
<td>reduce waste -new technology</td>
<td>$7,500</td>
<td>June to October 1991</td>
</tr>
<tr>
<td>Process redesign</td>
<td>Production</td>
<td>reduce process</td>
<td>$23,500</td>
<td>July to December 1991</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$372,758</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: AA PIGs 1991

Despite these gains suggestions for quality improvement remained confined to the PIGs and did not extend through the company generally as part of day to day production. The Manager Human Resources blamed this on the limited number of employees involved in PIGs, and the temporary nature of PIG meetings. Employees demonstrated quality had not become a continuous improvement activity by their concern with how quality would be handled in the new teams (Manager Human Resources September 28 1992). Typical questions repeated in Focus Groups held January 1992 were:

How will we know what are the accepted quality standards?
These questions show a continuing reliance on specialists from the Quality Department and managers for assessment of product quality.

Thus direct participation by a small number of self-selected process workers in temporary quality circles resulted in limited workforce participation, with quality assessment remaining principally a post-production activity by quality experts rather than a continuous improvement process by employees. The second form of direct participation was SAWGs.

**Semi-Autonomous Work Groups**

Workforce participation under the best practice changed the nature of direct participation from temporary activity within PIGs to permanent activity within semi-autonomous-work-teams. A summary of workforce participation associated with best practice reform is provided in Table 9.11.

<table>
<thead>
<tr>
<th>Elements of Best Practice</th>
<th>Method of Participation</th>
<th>Extent of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>organisational structures</td>
<td>direct participation through teams</td>
<td>semi-autonomous work teams</td>
</tr>
<tr>
<td>empowerment - direct employees</td>
<td>direct employees have substantial or direct control over daily work</td>
<td>daily team meetings; direct contact with suppliers and customers through MRPII</td>
</tr>
</tbody>
</table>

This shows employee empowerment associated with the SAWGs. The replacement of supervisor controlled production-line processes by self-managing teams led to direct participation by the production workforce in day-to-day activities of the company. Employees perceived they would be empowered to make decisions about a broader range of issues. However these related principally to immediate work area production and basic employee issues, rather than production issues of broader company relevance as demonstrated by the following typical responses to the question –
‘What issues do you think team members will have to decide?’

**Basic Employee**
- health and safety
- amount of workplace resolutions

**Production**
- exchange of jobs within the team
- replacement for an absent team leader
- sharing rotten jobs
- replacement of sick team members
- rotation of jobs
- time management
- housekeeping
- skills development
- allocation of tasks
- overtime
- team representation at meetings
- dealing with internal team problems
- communication with other teams
- efficiency (Focus Groups A January 3 & 4 1992).

These responses suggest employees perceived their role within the teams as primarily concerned with immediate work area production issues such as work methods communication, quality, and efficiency. Basic employee issues of terms and conditions of employment, wages, staffing/manpower, absence, and such were left to traditional collective bargaining, while strategic issues of company future were left to management. However within two years team responsibility for production issues had broadened to include reduction of absenteeism (a traditional collective bargaining issue). Furthermore in 1992 teams were given responsibility for the Electronic Data Interface with customers. This had strategic implications for the company. Team responsibility continued to increase until in 1993 they were given responsibility for their own budgets, including decisions on overtime and short-term labour requirements. Finally in that year team members in one team participated in interviews for a new team leader. Soon after all team members were trained in the development and monitoring of Critical Success Factors and related KPIs.

Thus direct participation introduced as part of best practice reform increased employee empowerment in production decisions involving their immediate work area, and provided opportunity for input into company level production and strategic decisions.

In summary direct participation developed from a part-time to a full-time activity under best practice reform as shown in Table 9.12.
Direct workforce participation had minimal affect on the company until the production process was reorganised as part of the adoption of lean production principles associated with best practice reform. Despite these changes developing employee confidence in their ability to make decision required significant training, regular information sessions and a gradual development of responsibility for production issues of more general import to the company. It also required managers to be trained in new leadership techniques required to ensure employees were encouraged to involve themselves. Indeed the company requested the government to allow it to spend more money on training before it attempted development of benchmarks. Turning now to representative participation.

**Representative Workforce Participation**

Within Auto Air representative workforce participation has a long history and is more diverse than direct participation. It became, in its various guises, central to the integration of the reform processes. Consultative Committees were the most typical. Following the limited response to the first-tier proposal, in 1988 Auto Air established the first of several Consultative Committees (AA EPG 1988). This Employee Participation Group (EPG) was established to replace previous ad-hoc meetings between management and shop stewards. The EPG continued to function throughout the period under review although it met less regularly during periods when specific issue Consultative Committees were operating. For example in 1990 the Auto Air Award Restructuring Working Party Committee (ARWPC) was established to assist

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### Table 9.12

**Auto Air Direct Workforce Participation**

<table>
<thead>
<tr>
<th>Methods of Workforce Participation</th>
<th>Extent of Workforce Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>information sharing</td>
<td>Managing Director in small groups about company strategy</td>
</tr>
<tr>
<td>training</td>
<td>specialists</td>
</tr>
<tr>
<td></td>
<td>employee volunteers in PIGs</td>
</tr>
<tr>
<td></td>
<td>literacy and numeracy</td>
</tr>
<tr>
<td></td>
<td>communication and group process techniques</td>
</tr>
<tr>
<td></td>
<td>leadership</td>
</tr>
<tr>
<td></td>
<td>as EEO</td>
</tr>
<tr>
<td>PIGs</td>
<td>employee volunteers</td>
</tr>
<tr>
<td>SAWGs</td>
<td>production workers and specialists</td>
</tr>
</tbody>
</table>
company implementation of the restructured Metal Industry Award (AA ARWPC 1990). This Working Party was supported at Auto Air Group level by an Award Restructuring Steering Committee (ARSC), (AA ARSC 1990a). This Steering Committee was never formally disbanded although in 1992 a Training Consultative Committee was established that effectively took over what had become the role of the Committee. Existing alongside these Consultative Committees was a Productivity Bargaining Group established in 1991 to negotiate an Enterprise Agreement. All these committees appeared to exist harmoniously without problems of either duplication or demarcation through good informal relationships. As shown in Figure 9.4 each of the three consultative forums continued to meet during the period under review, albeit at differing levels of intensity.

Figure 9.4

Auto Air and Auto Air Group Consultative Committee
Meetings 1989-1993

Meeting frequency of the EPG declined as the activity of the ARWPC and the ARSC increased. In 1992 the Training Consultative Committee effectively replaced the ARSC, meeting monthly until the company became part of the metal industry pilot study to test the new skills structure. Given the existence and activity of these Consultative Committees, what is of interest is the influence these committees had within the company. The activities of each committee will be explored separately.
Employee Participation Group (EPG)

The EPG was established in 1988 following unsuccessful attempts to trade workplace productivity improvements for wage increases under the second tier. It was made up of four managers (Director of Production, Manufacturing Manager, Production Manager, and Personnel Officer) and four Shop Stewards representing the workforce (two were also leading hands). Each supervisor was accorded observer status on a rotating basis. The Terms of Reference stated the Group was to “make recommendations and decisions in the interests of the groups they represent and the majority of employees within the organisation” (AA EPG 1988). Its role was therefore as an advisor to management.

The EPG began meeting on a monthly basis in January 1988 until May when meetings became bi-monthly. In 1989 there were four meetings, three meetings in 1990, 1 in 1991 and two in 1992 and 1993. These fluctuations were apparently due not to decline in support for consultation but rather because other consultative forums were introduced.

The EPG initially functioned primarily in a limited form as an information exchange on issues of basic employee concern as shown in Table 9.13. Production related issues were confined to skills training and quality improvement.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>ACTION</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Employee use of non-union employees</td>
<td>information sharing consultation</td>
<td>May 1988</td>
</tr>
<tr>
<td></td>
<td>grievance procedure</td>
<td></td>
<td>May 1988, November 1989</td>
</tr>
<tr>
<td></td>
<td>overtime procedure</td>
<td></td>
<td>October 1988</td>
</tr>
<tr>
<td></td>
<td>use of contractors</td>
<td></td>
<td>February 1989</td>
</tr>
<tr>
<td></td>
<td>Electronic Funds Transfer</td>
<td></td>
<td>December 1989 –from May 1 1990</td>
</tr>
<tr>
<td></td>
<td>award restructuring</td>
<td>agreement to establish ARSC and ARWPC</td>
<td>December 1989; August 1990; February 1991</td>
</tr>
<tr>
<td></td>
<td>enterprise agreement</td>
<td></td>
<td>January 1991</td>
</tr>
<tr>
<td></td>
<td>absenteeism</td>
<td>sub-committee report</td>
<td>November 1990</td>
</tr>
<tr>
<td></td>
<td>hazardous maintenance work</td>
<td>consultation</td>
<td>May 1988</td>
</tr>
<tr>
<td></td>
<td>EEO policy and Sexual harassment guidelines</td>
<td>for information</td>
<td>December 1989, March 1990</td>
</tr>
<tr>
<td></td>
<td>higher duties policy</td>
<td>for information</td>
<td>March 1990</td>
</tr>
<tr>
<td></td>
<td>unpaid leave policy</td>
<td>for information</td>
<td>September 1988</td>
</tr>
<tr>
<td></td>
<td>counselling and discipline policy</td>
<td>for information</td>
<td>August 1990</td>
</tr>
<tr>
<td></td>
<td>company newsletter, car parking, uniforms</td>
<td>consultation</td>
<td>December 1988, December 1989</td>
</tr>
<tr>
<td>Production</td>
<td>literacy classes</td>
<td>consultation</td>
<td>February 1991</td>
</tr>
<tr>
<td></td>
<td>external speaker</td>
<td>agreement to training numeracy and literacy sub-committee established</td>
<td>May 1992</td>
</tr>
<tr>
<td></td>
<td>Engineering Production Certificate-skills training</td>
<td>consultation</td>
<td>September 1991</td>
</tr>
<tr>
<td></td>
<td>Process Improvement Groups established</td>
<td>for information</td>
<td>November 1989</td>
</tr>
</tbody>
</table>

Source: AA EPG 1988-1992

It was not until 1991 the EPG was given a larger role. In this year it was assigned responsibility for administrating the new literacy-training program. It was also responsible for establishment of a sub-committee to explore the reasons for, and to propose ways to reduce, high levels of absenteeism. By the end of the year a Report from the sub-committee suggested a target of 50% reduction over 12 months be established. This reduction was to be achieved by providing incentives for employees to reduce their absenteeism through the Award Restructuring implementation process such as:
multiskilling the workforce and redesigning jobs to reduce boredom
- providing financial incentives to decrease the non essential use of sick leave
- decreasing the requirement for documented evidence of sickness
- introducing greater flexibility in the use of Rostered-Days-Off
- developing incentives to break the nexus between sick leave and overtime
- encouraging workgroups to help each other
- developing an open management style

These recommendations were included in the Enterprise Agreement negotiated in 1991, and became part of operating procedures for teams

Thus by 1991 the EPG had established itself as an important part of the program designed to assist implementation of the restructured award. Its recommendations had been incorporated into the new teams. After 1991 meetings of the EPG declined as teams were introduced, however the Group was never officially disbanded and in 1992 it was reformed to provide a broad forum for consultation.

**Auto Air Group Award Restructuring Steering Committee (ARSC).**

The ARSC was established in 1989 to produce a Group strategic plan for implementation of the restructured Metal Industry Award. The Committee was asked to develop a detailed program for information dissemination to the workforce. It was also planned this Committee would negotiate an Enterprise Agreement for the Group.

The Committee met five times during 1990. Table 9.14 summarises the issues covered by the committee.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>ACTION</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>information kit on award restructuring</td>
<td>agreement</td>
<td>February, June 1990</td>
</tr>
<tr>
<td></td>
<td>speaker on training analysis</td>
<td>information</td>
<td>May 1990</td>
</tr>
<tr>
<td></td>
<td>human resource manager - presentation</td>
<td>information</td>
<td>September 1990</td>
</tr>
<tr>
<td>Strategy</td>
<td>company secretary – future company</td>
<td>information</td>
<td>June 1990</td>
</tr>
</tbody>
</table>

AA ARSC 1990c

The first two meetings were devoted to reaching agreement on terms of reference and operating procedures for the Committee, and developing a detailed plan of activities for the award restructuring process. This plan was a detailed staged and multi-faceted reform plan as follows:
The plan sought to provide an integrated process to increase the flow of communication within the Group, as well as providing on-going training opportunities. To this end the committee spent most of 1990 gathering information and presenting it in a useful form to the workforce. For example an outside expert addressed the May meeting on how to undertake a skills audit. At the June meeting the company secretary gave a presentation on company performance over the previous 10 years. This was followed at the September meeting by the Human Resource Manager summarising changes to industrial relations. As a result the Committee decided to produce a regular ‘Restructuring Newsletter’ to keep the workforce informed of action being undertaken. Meanwhile, committee members visited eight companies that had embarked on reform to learn from their experiences. The plan was extremely detailed, especially as regards the many stages through which the process must proceed and the need for communication to be open and frequent. This suggests both management and employees accepted the need for the process of consultation to be as transparent and detailed as possible if employees were to be expected to place their trust in the change process.

By the end of 1990 the outcome of the Steering Committee was a detailed plan of activities required to increase skill levels within the company. The Award Restructuring Working Party Committee (ARWPC) adopted this plan as a guide to its activities.
Award Restructuring Working Party Committee

This Committee was established in 1990 as a joint-company committee for the two Victorian operations. The Committee was to undertake a detailed investigation of productivity improvements to negotiate with unions and make recommendations to management. The Committee was made up of equal numbers of management and workforce representatives for each of the major functional areas within the company (18 in total). Many representatives on the committee held dual membership on the EPG. In theory the ARWPC was responsible for all issues associated with award restructuring, while the EPG retained responsibility for all other issues. In practice, however, the change process associated with award restructuring became so all encompassing there was little need, or time, for other issues to be discussed in alternate consultative forums. Employee representatives were elected to the ARWPC on the basis they:

- had a good understanding of the majority of tasks completed in the work area to be represented
- were able to communicate effectively in the English language and to voice the views of the work group
- had credibility with the workforce
- were committed to the success of the restructuring process (AA ARWPC 1990:8).

By having these pre-requisites it was hoped the Committee would have both credibility with employees and skills to perform the detailed work required. At its first meeting the Committee adopted the detailed skills development program recommended by the ARSC. A timetable for activities was developed as summarised in Table 9.15.
### Table 9.15

Auto Air  
Award Restructuring Working Party Committee  
1990-1991  
Restructuring Timetable

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>TIMETABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SKILLS REVIEW</strong></td>
<td></td>
</tr>
<tr>
<td>identify current tasks and skills using appropriate techniques and develop job profiles based on skills</td>
<td>October 1990</td>
</tr>
<tr>
<td>develop flow charts and analyse how work system functions and where errors occur</td>
<td>November 1990</td>
</tr>
<tr>
<td>determine technology, work practices, management practices and work environment required-present and future</td>
<td>on going</td>
</tr>
<tr>
<td><strong>NEW CLASSIFICATION STRUCTURE</strong></td>
<td></td>
</tr>
<tr>
<td>match current skill levels in new metal industry classification structure</td>
<td>November 1990</td>
</tr>
<tr>
<td>identify career paths and future skill deficiencies</td>
<td>November 1990</td>
</tr>
<tr>
<td>formulate proposals to steering committee for proposed changes</td>
<td>on going</td>
</tr>
<tr>
<td><strong>SKILLS AUDIT</strong></td>
<td></td>
</tr>
<tr>
<td>develop skills review questionnaire to be completed by each individual</td>
<td>December 1990</td>
</tr>
<tr>
<td>conduct pilot test and modify/revise questionnaire if necessary</td>
<td>December 1990</td>
</tr>
<tr>
<td>distribute questionnaire and collect information</td>
<td>February 1991</td>
</tr>
<tr>
<td>analyse information and validate data</td>
<td>February 1991</td>
</tr>
<tr>
<td>match individuals into new structure</td>
<td>March 1991</td>
</tr>
<tr>
<td>re-classify employees if necessary using metal industry procedure</td>
<td>March 1991</td>
</tr>
<tr>
<td>report of suggestions, options and recommendations for improved skills formation, work organisation and job design</td>
<td>on going</td>
</tr>
<tr>
<td><strong>Training Working Committee</strong></td>
<td></td>
</tr>
<tr>
<td>form a consultative committee to consult on training needs and priorities</td>
<td>March 1991</td>
</tr>
<tr>
<td>develop a training plan for new classifications</td>
<td>April 1991</td>
</tr>
<tr>
<td>develop objectives and expected outcomes for all training</td>
<td>on going</td>
</tr>
<tr>
<td>decide on mode of execution of training</td>
<td>on going</td>
</tr>
<tr>
<td>monitor and evaluate against expected outcomes</td>
<td>on going</td>
</tr>
</tbody>
</table>

Source: AA ARWPC 1990a

The detail in this skills development program again demonstrates the level of joint commitment to skills upgrading. In the event the timetable was not adhered to as it was found to be too ambitious. However, instead of rejecting the plan in 1992 the company established a separate Training Sub-Committee to handle all training. Following the initial adoption of this timetable the committee discussed a number of other issues associated with implementation of the new award. These are summarised in Table 9.16.
Table 9.16
Auto Air
Award Restructuring Working Party Committee
1990-1991
Issues Discussed

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>ISSUE</th>
<th>ACTION</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Employee</td>
<td>information kit</td>
<td>consultation and information sharing</td>
<td>September, October 1990</td>
</tr>
<tr>
<td></td>
<td>presentation-training</td>
<td>for information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relationship to Employee Participation Group</td>
<td>discussion and agreement to alternate meetings to Employee Participation Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>workforce understanding of productivity bargaining</td>
<td>rotate employees through the committee, information briefings supervisor training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TAFE presentation</td>
<td>for information</td>
<td>December 1990</td>
</tr>
<tr>
<td></td>
<td>absenteeism and turnover</td>
<td>consultation - recommendations used in negotiations</td>
<td>May 1991</td>
</tr>
<tr>
<td></td>
<td>Employee Participation Group sub committee report</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>payment for skills</td>
<td>pay for skill acquired</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>use of production employees in stores as per agreement in 1989</td>
<td>discussion and agreement-flexibility</td>
<td>December 1990</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19 suggestions to the SBU for the Enterprise Agreement</td>
<td>November 1990, April 1991</td>
</tr>
</tbody>
</table>

Source: AA ARSC 1990c; AA ARWPC 1990-1991

As well as the development and dissemination to employees of a detailed information kit on Award Restructuring (AA ARSC 1990b) the Committee recommended detailed changes to work organisation and job design (AA ARSC 1990c). These recommendations included both managerial and workforce related changes such as

- supervision improvement
- increase flexibility in tasks performed by production and warehouse employee
- increase skill levels
- improve housekeeping
- remove gender discrimination
- removal of overtime limits
- introduce flexible starting and finishing times
- recognise the contribution made by the PIGs
- improve communication with the workforce (AA ARSC 1990c)

These recommendations recognised the interrelationship between a new style of supervision, the need for improved communication and the removal of discrimination, and the introduction of more time flexibility for work, alongside improved product quality. Many of these recommendations became part of the Enterprise Agreement negotiated in 1991. Thus the ARWPC played an important role in providing a joint
consultative forum in which recommendations for change associated with work organisation could be discussed amicably before becoming part of a bargaining process.

**Training Sub-Committee**

A joint union management Training Consultative Committee was established in 1992. This Committee replaced the ARWPC and enabled the company to progress the development of an appropriate skills based classification structure for employees. It was planned in conjunction with industry level negotiations; the company would develop skill competencies in accord with the Engineering Production Certificate. These competencies would take account of the site-specific skills required by process workers, especially literacy and numeracy skills. The Committee set a target of November 1992 for completion of this structure, however it was not completed when this research concluded. This is not surprising given the complexity of the task and a similar delay was being experienced at industry level. Indeed the progress made by the company resulted in it being included as part of joint employer/union pilot study of the Metals classification structure. Thus although it had not met its target completion date, the Committee had made considerable progress on an extremely difficult issue.

Before leaving this section it is appropriate to mention one other specific issue committee - the Safety Committee. As mentioned in the last chapter the company had established a safety committee in the mid-1980s. The Committee had been relatively inactive during the late 1980s as other changes were introduced. In 1992 it was agreed it would be reconstituted as a joint Consultative Committee with an equal number of management and workforce representatives. The aim of the new Safety Committee was identified as:

- to facilitate co-operation between management and employees in initiating, developing, carrying out and monitoring measures designed to ensure health, safety and welfare at work of the employees (AA Safety Committee 1992).

The committee was empowered to:
- seek resolution of issues and formulate review and disseminate procedures and policies,
- consult with management on any proposed changes to practices, procedures or policies,
- review the rehabilitation and employment of people with disabilities
assist in the return to work of injured workers
investigate accidents
investigate violations of safety rules
present an injury statistics report
present safety promotion activities and training programs
Update and review legislation and statute changes (AA Safety Committee 1992).

The Committee was to make recommendations to the Company Board on Policy decisions expenditure requirements. The Committee had not made any significant recommendations during the period under review.

Thus it is clear representative participation was introduced through the Consultative Committees introduced under institutional reform. As shown in Table 9.17 the importance of Consultative Committees developed over time.

<table>
<thead>
<tr>
<th>Institutional Change</th>
<th>Method of Participation</th>
<th>Extent of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second tier</td>
<td>collective bargaining</td>
<td>full time union officials</td>
</tr>
<tr>
<td></td>
<td>elected representatives to the</td>
<td>advisory – limited recommendations</td>
</tr>
<tr>
<td></td>
<td>Employee Participation Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>basic employee and some production issues</td>
</tr>
<tr>
<td>Award Restructuring</td>
<td>collective bargaining</td>
<td>shop stewards advised by full-time union officials</td>
</tr>
<tr>
<td></td>
<td>elected representatives to the</td>
<td>advisory – substantial recommendation re restructuring</td>
</tr>
<tr>
<td></td>
<td>Consultative Committees</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>basic employee, production and strategic issues</td>
</tr>
<tr>
<td>Enterprise Agreements</td>
<td>collective bargaining</td>
<td>workforce representatives on the</td>
</tr>
<tr>
<td>1991 and 1993</td>
<td></td>
<td>Productivity Bargaining Group</td>
</tr>
</tbody>
</table>

Although the Committee remained advisory to management the company did implement several of its major recommendations. Further, although collective bargaining remained the principal forum for award negotiations, local shop stewards were the principal negotiators rather than full-time union officials. Finally, although much time was spent on basic employee issues, the development of a training plan to increase the skill base of employees to assist best practice was the responsibility of the Committee. Indeed the Consultative Committees became important for the development and overseeing of an integrated best practice reform process.
Workplace Reform and Workforce Participation

This chapter has shown that Auto Air did introduce substantial reforms resembling the three types of workplace reform. These reforms were integrated as the company strategy evolved from its 1980 single-issue strategy (export growth) into an integrated best practice strategy. The various issue based Consultative Committees served as useful consultative forums for discussing plans for the future and identifying the means (training and skills development) to ensure the workforce was able to meet future company requirements. Eventually the importance of the Consultative Committees diminished as continuous direct participation by workers in teams replaced temporary direct participation by workers in quality improvement groups. Table 9.18 provides a summary of the relationship between each workplace reform under analysis in this thesis and workforce participation.

Table 9.18
Auto Air Workplace Reform and Workforce Participation

<table>
<thead>
<tr>
<th>Issues</th>
<th>Direct Participation</th>
<th>Representative Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Management</td>
<td>employees trained in Statistical Process Control</td>
<td>collective bargaining – shop stewards</td>
</tr>
<tr>
<td></td>
<td>temporary problem solving Process Improvement Groups</td>
<td>supported by full-time union officials</td>
</tr>
<tr>
<td>Institutional Workplace</td>
<td>work reorganisation into teams</td>
<td>Consultative Committees</td>
</tr>
<tr>
<td>Best Practice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Direct participation developed over time from a temporary activity concerned with a specific quality improvement to a permanent team activity concerned with broad-spectrum quality improvement. Representative participation through Consultative Committees became important forums for discussion of work re-organisation. These Committees helped to integrate change associated with each reform to suit the company’s specific character. As stated by the Human Resource Manager:

best practice is what works for your company...We do things because they work for us....It is not the structure but the culture and attitude that are important. We decided to get the culture right first, rather than go the technical way and spend our time doing TQM, SPC and so on (reproduced in MacNeil 1997:42)
Conclusion

This case study has described an Australian owned company that in 1989 faced two apparently conflicting market challenges. On the one hand sales within Australia were declining. On the other hand there was potential growth in both the Australian and export market. The company addressed these issues by developing a two-part external growth strategy. First, in the early 1980s an export strategy was developed. Second in the late 1980s a growth strategy into an Auto Air Group was adopted. By 1990 the Auto Air Group had grown sufficiently to successfully negotiate a profitable merger with a larger Australian owned non-automotive related Corporation that gave it access to funds for further expansion.

To support this external growth strategy, management developed a plan for internal company change using all three workplace reform processes discussed in this thesis. First, as part of quality management reform temporary quality improvement groups were established. Eventually permanent teams (SAWGs) replaced these temporary groups, with training in continuous quality improvement provided for all team members. Second, institutional workplace reform was used to negotiate worker agreement to a fundamental reorganisation of work into teams. Third, best practice principles were used to restructure the company into less segmented and hierarchical management structures. Thus the company integrated each successive reform process into an evolutionary strategy to meet world competitive manufacturing practices.

These reforms were assisted by positive managerial encouragement for increased workforce participation. Individual employees were encouraged to directly participate in quality improvement initiatives and to become involved in training provided by the company to provide the appropriate knowledge and skills for problem identification and solution. Over time changes were made to assist individual employees to participate as members of permanent quality improvement teams. This included the provision of more flexible training and more control to the teams to manage their operations. Workers were encouraged to elect representatives to company level Consultative Committees with wide ranging terms of reference. Although these Committees were only advisory their recommendations were generally implemented.
Thus the experience of workplace reform at Auto Air was positive. An integrated process of change was introduced with workforce commitment demonstrated through their willingness to participate both as individuals and part of a collective, and their acceptance of the need to upskill to assist the team system. Management commitment to employee participation was also critical to the success of the overall strategy for workplace reform.
CHAPTER TEN

CONCLUSION

Aligning Workplace Reform and Workforce Participation

Introduction

This thesis has sought to advance understanding of the politics of workplace reform. It was noted in Chapter One that it is commonplace for workplace reform to be predicated on greater workforce participation. However the nature of the relationship is not clear. Given this the question posed for the thesis was - what is the nature of the relationship between workplace reform and workforce participation? It is the task of this final chapter to analyse the research findings from the three case studies. The chapter first restates the theory behind the research question and rationale for the methodology chosen. This is followed by a comparative analysis of findings from the three case studies. Finally, the conclusion as to the relationship between workplace reform and workforce participation is presented.

In Chapter One it was argued that despite widespread agreement that workplace reform is required for companies seeking to remain internationally competitive, many questions remain as to the best means to achieve this reform. Workforce reform was categorised for the purposes of this thesis under three different headings. The first was quality management, defined as the need to develop a new quality consciousness focussed on Continuous Quality Improvement (CQI). The second was institutional workplace reform, defined as collective bargaining with unions for productivity improvements in exchange for wage gains. The third was best practice, defined as a comprehensive and integrated approach to continuous quality improvement in all facets of an organisation’s operations. It was argued that, notwithstanding the commitment to increased workforce participation in all workplace reform proposals, there is no agreement as to the form such workforce
participation should take. Therefore the research question for the thesis was formulated. It was argued that both the complexity of the question and the dynamic relationship between workplace reform and workforce participation requires the research be carried out through longitudinal case studies of several companies. Given the pressures on the Australian automotive industry by the late 1980s the three companies’ chosen, all of which had pursued or proposed change resembling the three types of workplace reform, were from within this industry.

Chapter Two summarised relevant literature on workplace reform, particularly quality management, institutional workplace reform, and best practice. It also reviewed some literature on workforce participation to develop the distinction between direct and representative forms. The Chapter clarified terms and gave focus to the research question. First, the principles and practices of the chosen workplace reform processes were outlined. This showed that all three reforms fit the test for workplace reform. They are all concerned with business competitiveness, the level of change is located at the workplace, and each operates through varying the human input into work. It was also clear each reform process relies on greater employee commitment to company performance. However it was found that the form of workforce participation associated with various workplace reform types is more difficult to determine. There is no agreement in the literature on the form to be adopted in terms of the effectiveness in either decreasing the power imbalance between management and employees or increasing employee commitment to enterprise goals.

Chapter Three explored the economic imperatives facing the Australian automotive industry and concluded that, by the late 1980s the industry faced pressures requiring workplace reform. It was found that all three reform processes - quality management, institutional workplace reform, and best practice – were accepted and implemented by the industry as useful approaches to reform. It was also found that workforce participation was central to such reforms. Finally, Chapters Four to Nine presented the case study findings. It is the task of this chapter to compare these findings keeping in mind the question raised for this thesis - what is the relationship between workplace reform and workforce participation? The next section presents a comparative analysis of the case studies.
The Companies

All three case study companies are SCP’s supplying product to local PMV producers. Table 10.1 presents a comparison of company characteristics.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin</td>
<td>1961</td>
<td>1953</td>
<td>1967</td>
</tr>
<tr>
<td>Ownership</td>
<td>German</td>
<td>Australian</td>
<td>Australian - AAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1960 – United Kingdom</td>
<td>1989 Australian - AAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1979 United States</td>
<td>1990 Australian company</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>merger</td>
</tr>
<tr>
<td>Decision making Authority</td>
<td>Australian Board of Directors (expatriate Germans) responsible to Germany</td>
<td>Australian Board of Directors</td>
<td>AA Board of Directors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990 Managing Director to American Board of Directors</td>
<td>AAG Board of Directors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990 Board of Directors of merged company</td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>Australian PMV</td>
<td>Australian PMV</td>
<td>Australian PMV vehicle importers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1990 export opportunities</td>
</tr>
<tr>
<td>Competition</td>
<td>local</td>
<td>local</td>
<td>local</td>
</tr>
</tbody>
</table>

Each company was initially established in the period between 1950 and 1970 under supportive Australian government policies. Largely due to their foreign ownership, neither Auto Electrical nor Auto Mechanical had developed an export strategy. However in 1990, as part of an International Corporate Strategy, Auto Mechanical was encouraged to produce and export a specialist component to sister companies. The third company, the locally owned Auto Air, had in 1982 begun developing a strategic multi-faceted export strategy. Finally, each company had traditionally held a relatively secure market share, with competition principally provided by locally based companies.

There was little to distinguish internal structures of the companies. Each company was structured according to the hierarchical and segmented principles of mass production as summarised in Table 10.2.
### Table 10.2
Cross Company Comparison
Internal Structure

<table>
<thead>
<tr>
<th>Structure</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>hierarchical</td>
<td>hierarchical</td>
<td>hierarchical</td>
</tr>
<tr>
<td></td>
<td>managerial prerogative</td>
<td>managerial prerogative</td>
<td>managerial prerogative</td>
</tr>
<tr>
<td>Departments</td>
<td>segmented functional</td>
<td>segmented functional</td>
<td>segmented functional but linked</td>
</tr>
<tr>
<td>Employees</td>
<td>semi-skilled process workers</td>
<td>semi-skilled process workers</td>
<td>semi-skilled process workers</td>
</tr>
<tr>
<td></td>
<td>highly qualified and skilled specialists</td>
<td>qualified and/or experienced specialists</td>
<td>qualified and experienced specialists</td>
</tr>
</tbody>
</table>

In all companies a hierarchical management structure governed all decision-making. Departments were segmented by function, with little communication between them, either through management or the workforce, although in Auto Air there was some attempt to link departments. Skill levels and qualifications of production workers and specialists differed, leading to different pay and conditions of employment. Country-of-origin and gender also differentiated specialists from production workers and from managers, with most managers and specialists being male and from English-speaking backgrounds (except for Auto Electrical where the German parent resulted in a majority German origin Board of Directors). All these factors led to an entrenched social and cultural separation between production workers, and specialists and managers.

These principles also determined the production process as summarised in Table 10.3. Production was standardised in short time cycles. The production process was planned around technology and governed by quantity rather than quality considerations. Jobs were designed as narrow, repetitive tasks often limited by technology. The Award governing wages and conditions of workers enshrined this job design in demarcations used to protect employment security. There was little independence or flexibility for the employee, little concern for employee welfare, and consequently an adversarial industrial relations culture. Wages and working conditions were determined through collective bargaining at federal and industry level, with full-time union officials assisting shop stewards in handling local issues. Auto Air was the most recently unionised plant, with the other two companies having a long history of union workforce representation.
Table 10.3
Cross-Company Comparison
Production Process and Workplace Culture

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production Process</strong></td>
<td>standardised</td>
<td>standardised</td>
<td>standardised</td>
</tr>
<tr>
<td>short cycles</td>
<td>short cycles</td>
<td>short cycles</td>
<td></td>
</tr>
<tr>
<td>technological focus</td>
<td>technological focus</td>
<td>technological focus</td>
<td></td>
</tr>
<tr>
<td><strong>Job design</strong></td>
<td>narrow, individual, task based</td>
<td>narrow, individual, task based</td>
<td>narrow, individual, task based</td>
</tr>
<tr>
<td>limited flexibility</td>
<td>limited flexibility</td>
<td>limited flexibility</td>
<td>limited flexibility</td>
</tr>
<tr>
<td>separation production and specialists</td>
<td>separation production and support</td>
<td>separation production and support</td>
<td></td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td>inspection post production</td>
<td>inspection post production</td>
<td>moving to continuous process</td>
</tr>
<tr>
<td>technological test</td>
<td>technological test</td>
<td>technological test</td>
<td></td>
</tr>
<tr>
<td><strong>Human Resources</strong></td>
<td>reactive</td>
<td>reactive</td>
<td>reactive</td>
</tr>
<tr>
<td><strong>Industrial Relations</strong></td>
<td>adversarial</td>
<td>adversarial, moving to cooperation</td>
<td>adversarial, moving to accommodating</td>
</tr>
</tbody>
</table>

Thus, apart from specific product output, the single major factor distinguishing these companies was country of origin, which in turn influenced their marketing strategies. All companies suffered from lack of natural competitive advantage, which made them dependent on government policy. By the end of the 1980s all three companies were faced with a number of challenges resulting from the response of government and customers to the economic downturn. These pressures required reforms at the workplace in response. The next section explores these pressures.

**Pressures for Reform**

By the late 1980s a number of pressures faced the automotive industry. These affected all three case study companies. First, there is sales. Auto Air recorded consistently higher sales than the other two companies over the period under review despite being a somewhat smaller and more recently established company. Auto Mechanical, on the other hand, consistently recording the lowest level of sales. As shown in Figure 10.1 despite a gradual increase in sales by all companies in the last years of the 1980s, in 1991 each company suffered a decline as a result of the recession and price competition from new domestic and South East Asian companies.
For Auto Mechanical further sales declines followed in 1992 until they reached a plateau in 1993 as the company narrowed its product range in line with the International Corporate Strategy. For Auto Electrical, sales continued to decline in 1992, although a slight recovery was recorded in 1993. Auto Air, on the other hand, was quick to reverse the 1991 slump with a steady increase in 1992 and 1993, although sales continued below the 1990 peak.

Second, there is employment. As shown in Figure 10.2 Auto Electrical remained the largest employer throughout the period under review. Indeed the company employed almost double the number of persons of either of the other two companies.
However Auto Electrical suffered an unplanned steady decline in employment from 1988 until 1992 when adverse sales caused it to retrench workers through voluntary redundancy. Both the two other companies, Auto Mechanical and Auto Air, although each employing only around half the workforce of Auto Electrical, varied their workforce according to a strategic plan. For Auto Mechanical the steady increase in employment of 1988 and 1989 was reversed with an offer of voluntary redundancy in 1990 as the first stage of implementation of its International strategy. Auto Air followed in 1990, offering voluntary redundancy as the first stage of diversification into an Auto Air Group. By 1992 both companies had stabilised their employment, albeit at lower levels, and both showed signs of recovery in 1993.

It is difficult to draw firm conclusions about the future of these three companies from this information, although it does appear that both Auto Mechanical and Auto Air had better developed long term growth strategies to address economic pressures than Auto Electrical. To these pressures were added demands from customers to improve quality, the need to improve productivity and efficiency as the government reduced protection for the industry. Workplace reform to improve quality, increase employee commitment, and improve internal company processes. The need for reform applied equally to all case study companies, however responses varied between companies.

**Workplace Reform**

In response to these pressures each company adopted a policy of structural change associated with all three approaches to workplace reform – quality management, institutional workplace reform, and best practice. First, by 1990 each company had introduced tailored Quality Improvement strategies. By 1992 each company had negotiated its first enterprise agreement, and by 1993 each company had committed itself to best practice. The way these policies were integrated varied as shown in Table 10.4.
## Cross Company Comparison
### Integrating Workplace Reform

<table>
<thead>
<tr>
<th>Type of Reform</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality Management</strong></td>
<td>Quality Department responsibility</td>
<td>Quality department responsibility</td>
<td>joint departmental responsibility</td>
</tr>
<tr>
<td></td>
<td>1988 strategy</td>
<td>1990 strategy</td>
<td>1989 strategy</td>
</tr>
<tr>
<td></td>
<td>stand alone from other reforms</td>
<td>partly integrated into enterprise agreement, but no direct wage trade-off</td>
<td>fully integrated into enterprise agreement</td>
</tr>
<tr>
<td></td>
<td>stand alone from other reforms</td>
<td>partly integrated</td>
<td>integrated with best practice through an organisational restructure</td>
</tr>
<tr>
<td></td>
<td>Corporate Services Department responsibility</td>
<td>Human Resource Department responsibility</td>
<td>cross departmental responsibility</td>
</tr>
<tr>
<td></td>
<td>quality improvement separated</td>
<td>no link to quality improvement</td>
<td>fully integrated quality improvement</td>
</tr>
<tr>
<td></td>
<td>devised by management</td>
<td>devised by management and workforce representatives</td>
<td>developed through consultation with unions</td>
</tr>
<tr>
<td></td>
<td>not integrated - Engineering Department responsibility</td>
<td>cross departmental responsibility</td>
<td>totally departmentally integrated strategy</td>
</tr>
<tr>
<td></td>
<td>limited commitment to change</td>
<td>linked to quality improvement and best practice.</td>
<td>work reorganisation on lean production principles</td>
</tr>
</tbody>
</table>

Auto Electrical treated each reform as a stand-alone process. Responsibility for each reform process differed between departments – the Quality Department was responsible for quality improvement, the Corporate Services Department was responsible for institutional workplace reform, while the Department of Engineering, Research and Development (ER&D) was assigned best practice reform. There was no attempt to integrate the reforms or build one upon the other. Indeed managers from the departments involved did not co-ordinate or communicate their activities to each other, and refused requests from worker representatives on the Consultative Committee for information on changes under consideration.

In Auto Mechanical, although initial changes associated with quality reform were isolated to the Quality Department, more integration occurred with the commitment by managers and employees to continuous quality improvement (CQI) in the 1992 enterprise agreement. In 1992 workforce representatives on the joint Consultative
Committee participated in a joint strategy planning workshop with management aimed at best practice reform through World Competitive Manufacturing.

Auto Air developed the most integrated approach to reform with the enterprise agreement negotiated with unions in 1992 used as the blueprint for work organisational change aimed at continuous quality improvement, increased productivity through implementation of lean production principles associated with best practice reform. Detailed operationalisation of each of the reforms also varied between case studies as shown below.

Quality Management Reform

In each case study quality had traditionally been relegated to a post-production checking activity rather than a continuous part of the production process. This resulted in quality improvement being considered the responsibility of the technical experts in the quality department with little or no involvement from other departments. Lack of knowledge and skills in quality improvement techniques meant production workers had little opportunity to contribute to quality improvement. In all cases quality reform was management initiated and controlled as shown in Table 10.5.

<table>
<thead>
<tr>
<th>Cross Company Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality Reform Processes</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989 Quality Council</td>
<td>1991 Quality Management Steering Committee and Quality Planning Team</td>
<td>1989 Quality Excellence Strategy Committee</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production employee</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>limited workforce role</td>
<td>limited workforce role</td>
<td>initially limited workforce role</td>
<td></td>
</tr>
<tr>
<td>eight production workers trained as quality controllers</td>
<td>window regulator line designed to include quality control</td>
<td>BUT</td>
<td></td>
</tr>
<tr>
<td>focus on technological and quality expert responsibility</td>
<td>focus on quality expert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no work reorganisation</td>
<td>no work reorganisation</td>
<td>potential increased role through work reorganisation as part of an integrated reform process.</td>
<td></td>
</tr>
</tbody>
</table>
Each company established a managerial steering committee with responsibility for overseeing quality improvement. In Auto Mechanical this Committee also included quality specialists who were largely responsible for the writing of a Quality Operating System. None of these committees had workforce representatives. Each committee reported to the existing managerial decision making hierarchy rather than establishing a new decision-making structure to support quality improvement. The focus of attention was on technologically driven quality improvements, only in Auto Air was work reorganised to enable a continuous quality improvement culture to develop. This resulted in mixed outcomes as shown Table 10.6.

Table 10.6
Cross Company Comparison
Quality Reform Outcomes

<table>
<thead>
<tr>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992 Ford Q1</td>
<td>1993 Ford Q1</td>
<td>1992 Ford Q1</td>
</tr>
<tr>
<td>no continuous improvement culture – quality specialist responsibility</td>
<td>no continuous improvement culture – quality specialist responsibility</td>
<td>continuous quality improvement through integrated reform process</td>
</tr>
</tbody>
</table>

Externally, all companies had by 1993 been awarded preferred supplier status by their respective customers, and each had developed their own family of preferred suppliers through their own Supplier Quality Assurance Assessment programs. However, quality continued to be the regarded internally as the responsibility of quality specialists rather than as everyone’s responsibility through continuous quality improvement. Post-production inspection by quality experts remained the principal means of quality assurance. In Auto Air, although temporary quality improvement groups (PIGs) met on a regular weekly basis there was no evidence of problem solving techniques being used outside these group meetings. Only when work was reorganised into teams did employees begin to take responsibility for quality improvement.

**Institutional Workplace Reform**

In each case study company wages and working conditions of the workforce were traditionally established through the Metal Industry Award. This Award was
negotiated centrally by collective bargaining between full-time union officials and full-time employer association representatives. Industrial relations negotiations at the workplace between shop stewards and management dealt chiefly with local issues concerning implementation of award conditions. Reform aimed at decentralising negotiations over wages and working conditions to the enterprise led, in the first instance to minimal changes in the structure for bargaining at the workplace as shown in Table 10.7.

Table 10.7
Cross Company Comparison
Institutional Workplace Reform Process

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negotiating Team</strong></td>
<td>union officials supported by shop stewards</td>
<td>union official supported by shop stewards</td>
<td>shop stewards supported by union officials</td>
</tr>
<tr>
<td></td>
<td>industrial relations/personnel</td>
<td>human resources manager shop steward</td>
<td>human resources plus manufacturing manager</td>
</tr>
</tbody>
</table>

Negotiations over wages and working conditions remained between the traditional bargaining partners, unions, and managers. However in Auto Air the union negotiating team was led by company shop steward rather than the full-time union official, and the management team included the manufacturing manager as well as the human resource manager.

The experience of each company demonstrates clearly the difficulty of moving from a centralised system to company level negotiations. The first stage of institutional reform, as shown in Table 10.8, yielded limited improvements.

Table 10.8
Cross Company Comparison
Institutional Workplace Reform Outcomes

<table>
<thead>
<tr>
<th>AIRC Decision</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Two Tier</strong></td>
<td>industry wide changes</td>
<td>industry wide changes</td>
<td>industry wide changes</td>
</tr>
<tr>
<td></td>
<td>minor task changes</td>
<td>minor task changes</td>
<td></td>
</tr>
<tr>
<td><strong>Award Restructuring</strong></td>
<td>translation into new classifications</td>
<td>translation into new classifications</td>
<td>flexibility between production and stores</td>
</tr>
<tr>
<td><strong>Enterprise Agreement (1)</strong></td>
<td>limited to basic employee issues</td>
<td>commitment to consultation</td>
<td>introduction of SAWGs continuous quality improvement</td>
</tr>
<tr>
<td><strong>Enterprise Agreement (2)</strong></td>
<td>non specific changes</td>
<td>reaffirm first enterprise agreement</td>
<td>strategic issue – skills training plan to be developed</td>
</tr>
</tbody>
</table>
All companies treating the new classification structure in the Metal Industry Award as simply a classification translation rather than a reclassification process, although Auto Air established a sub-committee to explore training to upgrade skills. The only company to achieve any productivity improvement was Auto Air, although Auto Mechanical did establish the framework for improvement through consultation. Auto Air negotiated agreement to work reorganisation introducing lean production principles with commitment to continuous quality improvement. Thus the company integrated quality reform into the institutional reform process.

**Best Practice Reform**

Each case study company traditionally relied upon short term; financial performance planning based on annual budgets. Performance measurement was confined to product output rather than process improvement, with mass production principles determining work organisation. Adoption of a policy of best practice was evident by the early 1990s, but again varied as shown in Table 10.9.

<table>
<thead>
<tr>
<th>Cross Company Comparison</th>
<th>Best Practice Reform Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Electrical</td>
<td>Auto Mechanical</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>limited strategy, driven by single factor (cost)</td>
</tr>
<tr>
<td><strong>External relations</strong></td>
<td>driven by competitive considerations</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>technological focus for change</td>
</tr>
<tr>
<td><strong>Measurement and control systems</strong></td>
<td>limited to macro accounting and financial data</td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
<td>no active encouragement of team ethos</td>
</tr>
<tr>
<td><strong>Process Improvement techniques</strong></td>
<td>identification of person from whom poor product had originated</td>
</tr>
</tbody>
</table>

Auto Air was the only company to develop an integrated best practice reform process that built upon the other two reforms. This evolved over time as successive reforms were attempted. Auto Mechanical had a written strategy that had not progressed to
implementation in the period under review. On the other hand, Auto Electrical did not attempt to develop a strategy until 1993 and even then it was driven solely by considerations of cost containment rather than productivity improvements. Auto Electrical did not undertake any significant restructure. Rather technological leadership remained the focus of company strategy with little attention given to process improvement through measurement and control systems. Although Auto Mechanical actively encouraged a team ethos, it relied principally upon state-of-the-art computerised technology to improve production. The company developed Key Performance Indicators with targets related to both product and processes, however process improvement techniques remained primarily a managerial concept rather than being guided by employees. Auto Air was the only company to embark upon significant work reorganisation. In 1992 SAWGs replaced task specific functional flow-line production processes and skill separated service departments. The restructure was supported by some investment in technology, but relied more upon improving processes through developing design for manufacturability and identifying process related measurement and control systems. A managerial restructure aimed at giving employees more autonomy over operational matters complemented the work reorganisation and enabled managers to develop more strategic plans. Accordingly outcomes varied as shown in Table 10.10.

### Table 10.10
Cross Company Comparison
Best Practice Reform Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workforce</strong></td>
<td>involuntary redundancy</td>
<td>redundancy but planned and balanced by skills enhancement</td>
<td>redundancy but planned and balanced by skills enhancement</td>
</tr>
<tr>
<td><strong>Organisational Structure</strong></td>
<td>mass production principles</td>
<td>mass production principles</td>
<td>lean production principles</td>
</tr>
</tbody>
</table>

Having no long-term strategy, Auto Electrical was forced in 1993 into offering involuntary redundancy. Although redundancy did occur in both other companies this was planned as part of the strategy and remaining employees were encouraged to upskill through company supported training. In both Auto Electrical and Auto Mechanical mass production principles continued to influence organisational structures. This meant departments remained separated, as did management and employees. The only process improvement measure focussed on people rather than
processes. Auto Air on the other hand achieved major organisational change that committed employees to the achievement of company targets.

In summary, the degree of change associated with operationalisation of workplace reform varied. Auto Electrical introduced little change, retaining a highly specialised and fragmented organisational structure. At the other extreme Auto Air introduced significant change under a highly integrated reform process. This resulted in a new organisational and managerial structure aimed at improved productivity, efficiency, and quality. Auto Mechanical belongs somewhere between these two extremes with verbal commitment to reform, but limited operational change. Given these findings the next section explores workforce participation associated with these reforms.

**Workforce Participation**

All companies introduced direct and representative workforce participation as shown in Table 10.11.

<table>
<thead>
<tr>
<th>Type of Participation</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>temporary Kaizen groups</td>
<td>temporary Productivity Enhancement Process teams</td>
<td>temporary Process Improvement Groups</td>
</tr>
<tr>
<td></td>
<td>training in quality improvement</td>
<td>training in quality improvement techniques</td>
<td>training in quality improvement techniques</td>
</tr>
<tr>
<td></td>
<td>eight process workers upskilled to quality control</td>
<td>computerised window regulator line designed for continuous quality improvement</td>
<td>production workers to implement Corrective Action Requests</td>
</tr>
<tr>
<td></td>
<td>no work reorganisation</td>
<td>no other work reorganisation.</td>
<td>SAWGs</td>
</tr>
<tr>
<td>Representative</td>
<td>collective bargaining – full-time union officials</td>
<td>collective bargaining full-time union officials</td>
<td>collective bargaining local shop stewards</td>
</tr>
<tr>
<td>Consultative Committees</td>
<td>Consultative Committees</td>
<td>Consultative Committees</td>
<td></td>
</tr>
</tbody>
</table>

First, direct participation was introduced through QCs. In 1990 Auto Air was the first company to establish what were termed Process Improvement Groups. Auto Mechanical followed in 1992 with Productivity Enhancement Teams. Finally, in 1992, Auto Electrical introduced ‘Kaizen’ teams. As shown in Table 10.12
membership was voluntary and usually confined to employees immediately affected by the problem.

### Table 10.12

**Cross Company Comparison**

**Direct Workforce Participation Process**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>level</td>
<td>immediate work area</td>
<td>immediate work area</td>
<td>Immediate work area</td>
</tr>
<tr>
<td>form</td>
<td>voluntary</td>
<td>voluntary</td>
<td>Voluntary</td>
</tr>
<tr>
<td>type</td>
<td>consultation</td>
<td>consultation</td>
<td>Consultation</td>
</tr>
<tr>
<td>subject matter</td>
<td>product quality</td>
<td>product quality</td>
<td>production quality work process</td>
</tr>
</tbody>
</table>

Volunteers were trained in quality improvement techniques, however in both Auto Electrical and Auto Mechanical training was ad hoc, during periods of slack production, rather than strategically integrated into an overall reform process. Auto Air was the only company to develop a formalised training program, which included training in group-dynamics as well as technical training. The QCIs were confined to the immediate work area, with issues discussed restricted to quality issues. Groups met temporarily and were often disbanded once a problem was solved. There was little recognition of, or reward for, the contribution made by employees except in Auto Air, in which members of the PIG regarded as the most effective in any one year were sent at company expense to participate in the annual international industry quality conference. Direct participation as a permanent feature of work was only introduced in Auto Air, although the issue was under discussion in Auto Mechanical.

As a result direct participation provided only limited opportunities for employees to influence decision making within companies except in Auto Air in which temporary direct employee participation was transformed into permanent team process. The outcome was Auto Air was the only company to achieve employee commitment to continuous quality improvement.

Second, representative participation was introduced through consultative committees as shown in Table 10.13.
### Table 10.13

**Cross Company Comparison**  
**Representative Workforce Participation**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>company</td>
<td>company</td>
<td>company</td>
</tr>
<tr>
<td>form</td>
<td>Consultative Committee</td>
<td>Consultative Committee</td>
<td>Consultative Committee</td>
</tr>
<tr>
<td>type</td>
<td>consultation</td>
<td>consultation</td>
<td>consultation</td>
</tr>
</tbody>
</table>

All companies established company level Consultative Committees as part of institutional workplace reform. These Committees consisted of an equal number of employee representatives elected through the union, and management representatives. They were consultative to management rather than decision-making bodies. This suggests a wary attitude by management to the principle of managerial prerogative in decision-making. The outcomes of these Committees varied as shown in Table 10.14.

### Table 10.14

**Outcomes of Representative Workforce Participation**  
**Under Workplace Reform**

<table>
<thead>
<tr>
<th></th>
<th>Auto Engineering</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>management</td>
<td>minimal refusal to provide</td>
<td>demonstrated commitment to continual improvement of consultative process</td>
<td>management support and preparedness to discuss</td>
</tr>
<tr>
<td>commitment</td>
<td>information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employee</td>
<td>focus on basic employee issues</td>
<td>focus on basic employee issues</td>
<td>focus on basic employee issues</td>
</tr>
<tr>
<td>commitment</td>
<td></td>
<td>some discussion of production changes</td>
<td>some discussion of production changes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>preparedness to train to implement company strategy</td>
<td>commitment to company strategic direction</td>
</tr>
<tr>
<td>written complaints</td>
<td>leading to rejection of Committee recommendations and finally union withdrawal</td>
<td>ongoing commitment despite adverse employment consequences</td>
<td>shop steward prepared to discuss issues outside formal union process</td>
</tr>
</tbody>
</table>

Although the terms of reference for Committees were broad, managerial commitment varied. In Auto Electrical managerial rhetoric supporting consultation was not operationalised. Management first avoided giving information and later openly ignored employee request for information. This differed from the support given by management in the Consultative Committee process in both other case studies. In response employee commitment varied. In Auto Electrical, discussion remained focussed on basic employee issues with no discussion of productivity improvements.
or strategy issues. By contrast, although the majority of issues discussed in Consultative Committees in both other companies remained focussed on basic employee matters, there was some discussion of productivity improvement and strategic issues.

The result was varied employee commitment to an ongoing consultative process. In Auto Electrical, lack of response to employee complaints to the Managing Director resulted initially in workforce rejection of committee recommendations and eventually in union withdrawal from the committee. More positive employee support was recorded in Auto Mechanical and Auto Air. Auto Mechanical was able to implement the externally imposed strategy that resulted in a decline in employment without adverse industrial response. In Auto Air the positive employee feedback led the shop steward to suggest that the Consultative Committee may eventually replace the union.

In summary these different approaches to workplace reform and workforce participation resulted in different outcomes. Auto Electrical achieved little productivity and efficiency improvement and by 1993 was forced to introduce unplanned retrenchment of its workforce. Auto Air achieved a major work organisational change that produced productivity and efficiency improvements. This enabled it by 1993 to record some degree of market recovery despite its smaller production role within an expanded Auto Air Group. Auto Mechanical succeeded in introducing major externally induced change, which significantly reduced its sales and employment levels without industrial dispute. It remains to be seen what long term benefits this international strategy afforded the company.

**Conclusion**

This thesis sought to advance understanding of the politics of workplace reform. Specifically, it is concerned with the alignment between particular approaches to workplace reform and forms of workforce participation. In Chapter Two the literature upon workplace reform and workforce participation was reviewed. On this basis it was suggested that many alignments are likely:
• Quality Management will be associated with direct participation
• Institutional workplace reform will be associated with representative participation.
• Best practice will be associated with both.

This relationship between workplace reform and workforce participation was explored in the context of Australian policy and practice in the period 1985-1992 – a time of rapid innovation in the search for enterprise competitiveness. Conceptually, this period of innovation in Australia was associated with a succession of ideas for workplace reform – quality management, institutional workplace reform, and best practice. Similar intellectual ferment was evident upon workforce participation, captured, it was suggested, in the distinction between direct and representative forms. Empirically the relationship between workplace reform and workforce participation was explored from 1985 to 1992 within three Australian automotive component manufacturers. Through longitudinal case studies, commercial pressure and Taylorist work organisation were depicted as the seedbed for successive experiments in workplace reform and workforce participation.

To return to the central problem, what does the evidence show about the alignment between forms of workplace reform and workforce participation? The detailed findings from the case studies are presented above. They will now be summarised in two parts, the first relating to processes and the second to outcomes.

Table 10.15 shows the basic pattern for the alignment of workplace reform and workforce participation processes.

<table>
<thead>
<tr>
<th>Quality Management</th>
<th>Auto Electrical</th>
<th>Auto Mechanical</th>
<th>Auto Air</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>temporary Kaizen</td>
<td>temporary QCs</td>
<td>temporary QCs changing to permanent teams</td>
</tr>
<tr>
<td>Institutional Workplace Reform</td>
<td>collective bargaining</td>
<td>collective bargaining</td>
<td>collective bargaining</td>
</tr>
<tr>
<td></td>
<td>representative participation</td>
<td>representative participation</td>
<td>representative participation</td>
</tr>
<tr>
<td>Best Practice</td>
<td>under management discussion</td>
<td>planned</td>
<td>operational and linked to direct teams</td>
</tr>
</tbody>
</table>
The first conclusion to be drawn from this table is that all three companies employed representative and direct methods of workforce participation to support a succession of workplace reform initiatives spanning at least quality management and institutional workplace reform and best practice in the case of Auto Air. At this level the hypothesised relationship appears to be supported. Broadly, where companies implement quality management, institutional workplace reform, and best practice reform strategies, they will turn to the appropriate methods of participation.

More important is the efficacy with which this is done. The case studies make clear there were differences in effective implementation. These can be summarised as follows. Auto Electrical made least progress in both workplace reform and workforce participation. By 1992 successive experiments with quality management and institutional workplace reform had been largely unproductive and short-lived. Related to this, a system for representative participation had been tried and declined, while direct participation was not sufficiently developed to produce any conclusions.

Auto Mechanical by 1992 had developed several plans for change associated with the three reform processes although little actual change had been achieved apart from that associated with implementation of the externally set strategy of the parent company. There was widespread support for experiments in both direct and representative participation, but this had achieved limited success as workers strove to understand broader company concepts and strategies.

Finally, Auto Air had succeeded in both workplace reform and workforce participation. It had progressed rapidly from quality management through best practice and had utilised a multi-layered approach combining direct and representative forms of participation.

Table 10.16 shows these findings with respect to workplace reform outcomes and the implementation of workforce participation.
Table 10.16

| Workplace Reform Outcomes and Implementation of Workplace Reform Processes |
|-------------------------------------------------|-----------------|-----------------|
| **Quality Management**                         | Auto Electrical | Auto Mechanical | Auto Air         |
| temporary and delayed                         | temporary QCs   | temporary QCs * |
| Kaizen groups                                 |                 |                 |
| no CQI                                        | no CQI          | no CQI          |
| **Institutional Workplace Reform**            | complaints and  | ongoing commitment | successful consultation |
|                                               | rejection of    | to consultation  | and ongoing       |
|                                               | Consultative    | through          | Consultative      |
| Committee                                     |                 | Consultative Committee | Committee       |
| basic employee issues only                    | basic employee issues and production issues, some strategic | basic employee issues extended to production and strategy |
| **Best Practice**                             | management discussion | planned           | successful SAWGs and Consultative Committee |
|                                               |                 |                 | CQI and productivity improvement |

* NOTE: This data related to an early phase in workplace reform at Auto Air, which was integrated into subsequent initiatives.

From the analysis of outcomes it may be inferred that the formal characteristics of reform and participation are less significant than their quality. What most distinguished Auto Air from Auto Electrical is not that it advanced to best practice rather than becoming mired in institutional workplace reform, but rather that it implemented workplace reform better, primarily through integration of the structures created for reform with their operation. What secondly distinguished Auto Air from Auto Electrical is not the superiority of multi-layered direct participation and representative participation over representative participation, but rather managements’ readiness to sustain ‘high trust’ participation by the workforce.

The evidence in these case studies suggests that effective workforce participation is a condition for effective workplace reform. In Auto Air, the two are intertwined such that workforce participation becomes a building block for successful reform. In contrast, at Auto Electrical the exercises remained substantially separate. Participation was confined to minor housekeeping issues and contributed nothing to an equally arid approach to workplace reform.

The categorisations drawn by the thesis from the literature – quality management, institutional workplace reform, and best practice on the one hand, and direct participation and representative participation on the other hand – do not appear to
convey the key distinctions needed to understand the essential differences between Auto Air and Auto Electrical. Rather a different typology is needed. This one distinguishes operational workplace reform (in which action follows structures) from policy workplace reform (in which reality does not follow rhetoric), and low trust versus high trust forms of workforce participation. It is the coincidence of operational workplace reform and high trust workforce participation that explains Auto Air’s success. Their actual relationship can be shown diagrammatically as follows

<table>
<thead>
<tr>
<th>Workplace Participation</th>
<th>Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Trust</td>
<td>Policy</td>
</tr>
<tr>
<td></td>
<td>Auto Electrical</td>
</tr>
<tr>
<td>High Trust</td>
<td>Operational</td>
</tr>
<tr>
<td></td>
<td>Auto Mechanical</td>
</tr>
<tr>
<td></td>
<td>Auto Air (best practice)</td>
</tr>
</tbody>
</table>

From the case study evidence, the factors that influence these patterns are numerous, but may include:

- Degree of integration of workplace experiments
- Management commitment to workforce participation
- Workforce knowledge and skills
- Union commitment to workforce participation.

To close, two competing views were suggested at the beginning about the politics of workplace reform: which is more appropriate? The first view was characterised as union/pluralist. Representative forms of participation were considered necessary to redistribute power and thus win employee commitment to reform. The second view was characterised as managerial/unitarist in which political status quo remained tilted
towards management who would control limited direct employee involvement in production decision. No case closely resembles these positions. At one extreme Auto Air employs both forms of participation despite their theoretical incongruity. In practice they can be mutually supportive. The key condition for success, however, was managerial commitment to employee involvement in change rather than a redistribution of power between management and workers.

At the other extreme lies Auto Electrical in which representative participation failed primarily due to managerial reluctance to allow dilution of their unitarist prerogatives and allow employees involvement in the change process.

In summary despite the rhetoric of workforce participation as part of workplace reform there were differences between the case studies in the way that participation was operationalised. This has less to do with whether workforce participation adopted a direct or representative form and more to do with the degree of managerial commitment to both workplace reform and workforce participation. In Auto Electrical, management had little commitment to either structural or operational change. This extended to lack of support for increased workforce participation. At the other extreme, management at Auto Air embraced the need for change under each reform process and in so doing designed a change process that integrated each of the reform processes under analysis. Workforce participation was designed to assist change by ensuring that workers were both individually included in the change process affecting their immediate work area, and collectively represented on discussions of change concerning the whole company. Auto Mechanical existed somewhere in between these two extremes with management accepting the need for change to accommodate external pressures from its parent company. The reform process designed to accommodate these changes recognised the need for increased workforce participation to encourage worker acceptance of change.
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And
COMPANY REFERENCES
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327


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APPENDIX 1

SOURCES OF INFORMATION
Appendix 1: Data Collection:

Auto Electrical

1. Interviews were held with Directors and Managers between August and December 1992 with a union official on December 9 1992 and with workforce representatives on July 20 1993. Interview dates are set out below. Appendix 2 sets out the Interview Questions.

Dates of Interviews:

Managing Director August 1 1992
Manager Primary Production - December 8 1992.
Manager Final Assembly - December 8 1992.
Manager Production Planning - December 8 1992.
Director Finance - April 29 1993.
Manager Health & Safety - July 20 1993.
Board of Directors and Senior Managers - November 22 1991.

2. Company records were researched. Details are included in the bibliography. Company records consulted include:
   Memo’s - Internal Company
   Records - Corporate Service Division
   Minutes - Consultative Committee (1988-1993)
   Minutes - Quality Council (1989-1993)
   Minutes - Project and Kaizen team (1992-1993)

3. Joint workforce-management Focus Groups were held on August 19th and 28th and September 5th and 12th 1991 (Focus Groups A). Appendix 3 sets out the Focus Groups questions.
Auto Mechanical

1. Interviews were held with managers between October and December 1992 and between April 1993 and November 1993 with a final interview held with the newly appointed Managing Director in October 1994. Interviews were also held with the shop steward and full time official of MEWU in May and November 1993. Appendix 2 sets out the Interview Questions.

Dates of Interviews:

- Assistant Manager Sales & Engineering - October 26 1993.
- Consultative Committee - November 9 1993.
- Shop Steward - November 9 1993.

2. Company records were researched. Details are included in the bibliography. Company records consulted include:
   - Memo’s - Internal Company
   - Records - Human Resource Department
   - Minutes - Consultative Committee (1989-1993)
   - Minutes - Quality Management Steering Committee Council (1990-1993)

3. Joint management-employee Focus Groups were held in February 1993 (Appendix 3).

4. An additional source of valuable information was the Report of an employee climate survey undertaken in 1993 (Climate Survey Analysis Report - Task Force Consultants 1993). The questionnaire used in the survey is included at Appendix 4).
Auto Air

1. An interview was held with ‘forepersons’ (company terminology) on October 28 1990. Interviews were held with managers between September and December 1992 and during 1993. An interview was also held with the shop stewards on September 21 1992. Appendix 2 sets out the Interview Questions.

**Dates of Interviews:**

- Quality Assurance Officer - October 22 1993.
- Forepersons October 28 1990.

2. Company records were researched. Details are included in the bibliography. Company records consulted include:
   - Memos' - internal company
   - Records - Human Resource Department
   - Minutes of Consultative Committee

3. Joint management-workforce Focus Groups were held (Appendix3). These included:
   - Focus Groups of production and stores employees and management in January 1992 (Focus Groups B January 3 & 4)
   - Focus Groups of specialist employees in October 1992 (Focus Groups C October 14).

4. An additional source of valuable information was provided by a company survey of forepersons undertaken in 1990 (May 1990 Appendix 5).
APPENDIX 2
INTERVIEWS
Interviews

Interviews were held with company Directors, Managers, full time union officials, and workforce representatives. The interviews were structured as closed questions prepared beforehand in accordance with a positivist approach to interviews\(^1\).

**Schedule 1: Company Background**

The first schedule of interviews aimed to collect information on the operation of each company prior to the implementation of reform. This included information on company structure, product, market performance, corporate plan, work organisation, decision making, human resource management, and industrial relations. Interviews were face-to-face interviews with most Directors and Senior managers in all companies. The Chief Executive Officer and/or the Human Resource Manager were asked all questions with other Directors and Managers asked only those related to their speciality. Interviews went for between one to two hours. Information collected from the interview was checked with each interviewee. Most of the information was qualitative although quantitative data was collected as necessary. Information from these interviews provides the material for the company background of each case study (Chapters 4, 6 and 8).

**Schedule 2: Reform Process.**

The second schedule of interviews aimed to collect information on the process by which workplace reform was implemented, particularly as it related to workforce participation. Interviews were again face-to-face with selected Directors and Managers (senior and middle management, including supervisors and team leaders). Interviews were also held with several full-time union officials and workforce representatives. Most of the information collected was qualitative. Information collected from these interviews provides the material on the reform process implemented in each case study (Chapters 5, 7 and 9).

Macmillan Business London.
INTERVIEW SCHEDULE 1

INDUSTRY:
1. What influence has the industry had on this company?
2. How does the product from this company contribute to the industry?

COMPANY:

A) OWNERSHIP
1. What is the form of company ownership?
2. What changes have occurred to the ownership of the company?
3. What effect, if any, did these changes in ownership have on the company?

B) PRODUCT
1. What is the company’s product range?
2. Have there been any changes to product range over the last 5 to 10 years?
3. How is product divided between Original Equipment and Parts & Accessories?
4. What product changes do you expect over the next 5 to 10 years?

C) MARKET
1. What is the product market facing the company?
2. What changes have occurred to the market over the last 5 to 10 years?
3. What changes, if any, do you expect to your market in the next 5 to 10 years?
4. Who are your customers?
5. Does the company have any formal agreements or joint ventures with its customers?
6. What is the extent of competition for the company’s products?
7. Does the company export? If so what percentage of product is exported?
8. What is the focus of the company’s marketing strategy?

D) SUPPLIERS
1. What sub-component products and raw materials are supplied to the company?
2. Are company suppliers locally or overseas based?
3. What is the nature of the relationship between the company and its suppliers?
4. How predictable are suppliers?
5. What level of inventory does the company maintain?
6. What changes have occurred with suppliers over the last 5 to 10 years?

E) COMPANY STRUCTURE
1. Does the company play a role within the corporate body? If so what is that role?
2. What is the organisational structure within the company?
3. What is the management structure within the company?
4. What changes if any have occurred to these structures in the last 5 to 10 years?
5. Are any structural changes planned?

F) CORPORATE PLAN
1. How is the company’s corporate plan determined?
2. Is the corporate plan driven by a company mission?
3. Is the corporate plan financially or strategically driven?
4. What period of time is covered by the corporate plan?
5. Who is involved in developing the corporate plan?
6. What performance measures are identified in the corporate plan?
7. What does human resources contribute to the corporate plan?
8. What role does the workforce play in the corporate planning process?
G) PERFORMANCE MEASUREMENT
1. How is performance measured within the company?
2. How is productivity measured? Does productivity measurement include any of the following?
   - measurement of capital productivity
   - extent of downtime
   - return on funds investment
   - rate of return on investment
3. How is profitability measured within the company?
4. How is efficiency measured within the company? Do efficiency measures include any of the following?
   - downtime
   - internal delivery of inventory
   - communication
   - links with suppliers/buyers
5. What is the current cost breakdown for the company between labour, capital equipment, overheads, materials, transport and storage, research and development, training, other?
6. What is the company performance and profitability record over the last 5 to 10 years?
7. How is production performance measured?

H) WORK ORGANISATION
i) Planning
1. Which of the following planning approaches are utilised?
   - aggregate
   - MRP
2. What changes have been introduced in the last 5 years?
3. Does planning include the ability to adjust capacity for special requirements?
4. Which of the following forecasting methods are used for inventory management?
   - counting
   - qualitative
   - time series
   - cause
   - Which of the following inventory management methods are used?
   - fixed order
   - replenishment
   - optional replenishment
5. What inventory planning methods are used?
6. What changes, if any, have occurred to inventory planning methods in the last 5 years?
7. To what extent have employees been involved in any changes that have occurred?
8. Do you design for manufacturability?

ii) Production
1. Would you describe the production process as
   - capital or labour intensive?
   - Batch, flow line, or group?
2. What is the physical layout of the production process?
3. Which of the following best describes jobs within production?
   - totally defined
   - some variation dependent upon different machines and processes
   - some discretion in job choice
   - employee choice from a stack of different job
4. What changes if any have occurred to jobs in the last 5 to 10 years?
5. What technology is used in production?
6. What new technology, if any, has been introduced in the last 5 to 10 years?
7. What production control systems are used?
8. Have any new production control systems been introduced in the last 5 to 10 years?
9. If changes have been introduced, who decided on these changes?
10. What process was established for these changes?
   who was involved?
   what consultative was undertaken?
   what training was provided?

I) TECHNOLOGY
1. Which of the following best describes the age of technology used within the company?
   - <5 years
   - 5-10 years
   - 10-15 years
2. What technology is used in production?
3. Do you have any of the following technological developments?
   - Computer Aided Drafting (CAD)
   - Computer Aided Manufacturing (CAM)
   - Computer Aided Engineering (CAE)
   - NC/CNC
   - FMC/FMG
   - Laser technology
   - Automated Guided Vehicle Systems (AGVS)
   - Automated Sensor Inspection (ASI)
   - Local Area Computer Network (LAN)
   - Programmable Logic Control (PLC)
   - Electronic Data Interchange (EDI)
   - Robots
   - Other
4. What process was established for the introduction of technological change?
   who was involved?
   what consultation was undertaken?
   what training was provided?

J) QUALITY:
1. What quality system is employed within the company?
2. Is there a company quality manual? If so, how often is it updated?
3. Does the quality manual include written specifications for the following?
   - purchase materials
   - finished products
4. Which of the following is the most commonly used method of verifying correctness to specification of purchased material?
   - inspection
   - statistically based acceptance sampling
   - random inspection
   - Other (specify)
5. Which of the following process control techniques do you use?
   - sample inspection
   - attribute control charts eg pcu
   - variable control charts eg xr
   - control charts for individuals
   - cumulative sum control charts
   - other (specify)
6. Is the reliability of finished product formally monitored and analysed? If so is it done:
   - internally only
   - externally only (customer feedback filed data)
7. Does the company measure the cost of quality?
8. Which of the following methods are used in measuring the performance of the quality control program?
   - cost-benefit analysis
   - rate of return
   - turnover
   - profit on turnover
   - profitability
   - other (specify)
9. To what extent did actual performance of the quality program meet the set target (for quality goals) over the last five years?
10. Is a regular quality audit carried out in the company?
    - yes, own staff
    - yes, external consultants
    - jointly
    - no
11. Is the person responsible for quality involved in any of the following?
    - product design & development
    - quality instruction manual
    - vendor quality
    - inspection of incoming raw materials
    - SPC
    - product reliability
    - product release
    - customer complaint/feedback
    - quality department training
    - interdepartmental quality training
    - assigning responsibilities to staff
12. If the person responsible for quality is not involved in the above, how do those involved obtain knowledge about quality control & measurement?
13. How is senior management involved in quality?
14. How does senior management use quality data to make decisions regarding quality improvements in the following areas?
    - training
    - tooling
    - process improvement
    - higher quality raw materials
    - other (specify)
15. How is information concerning quality made available to the following?
    - shop floor employees
    - supervisors
    - management
16. Has the company received any outside assistance (financial or otherwise) concerning quality improvements from the following in the past 5 years? If so what was the form and amount of that assistance?
    - Federal government
    - State government
    - Australian Organisation for Quality Consultants
    - parent or sister company
    - major customer
    - other (specify)
17. Does the company undertake training in quality?
18. If so, is there a specific budget for training in quality? -Is it specified in terms of sales turnover?
19. How many days per annum are spent on quality training?
20. Is there an established internal training program on quality for the following?
   management including supervisors
   employees including new employees
21. What is included in the training:
   external skills training courses
   external classroom instruction
   internal classroom instruction
   in-house hands-on experience

K. WORKFORCE DEMOGRAPHICS:
1. What is the current employment level in the company? How has this changed over the last 5 to 10 years?
2. What is the breakdown of the workforce between the following groups?
   management and employees
   direct/indirect
   award related/staff
   male/female
   English speaking background (ESB), non English speaking background (NESB)
3. What is the distribution of the workforce between the following?
   departments
   functions
   clerical
   engineering
   technical
   trade
   process worker
   apprentices
   other
4. What is the age breakdown of the workforce?
   15-24
   25-34
   35-44
   45+
5. What is the length of service of employees?
   <5 years
   5-10 years
   10-15 years
   15-20 years
   20-25 years
   25-30 years
   >30 years
6. What is the annual labour turnover? Has this changed in recent years?
7. What career opportunities exist for employees?
8. Are technical, trade, professional, skills required?

L) EMPLOYMENT RELATIONS
i) Human Resource Management - Policy
1. What is the formal reporting structure for the HR department?
2. How many people are employed within the HR department?
3. Is there a formal company HR Policy? What contribution does this make to the company corporate plan or mission?
4. What role does HR play in the following?
   performance reviews
recruitment
promotion
production changes
the introduction of technology
training
industrial relations

ii) Training
1. Does the company have a formal training plan? How was it developed? Who developed it?
2. What percentage of company payroll is spent on training?
3. What formal training structure has been established?
4. Is training provided on-the-job or off-the-job or both?
5. Who makes decisions on training?
6. What is the relationship between training and career progression?

iii) Occupational Health and Safety
1. Does the company have an occupational health and safety policy? If so how was it developed?
2. What is the company health and safety record in terms of the following?
   health and safety claims
   working days lost
   compensation costs
i) What training has occurred in occupational health and safety?
ii) Does the company have a health and safety committee? If so how was it established
    who is on the Committee?
    what issues does it discuss?
    how frequently does it meet?
    how does it communicate with the rest of the company?

iv) Equal Employment Opportunity (EEO)
  i) Does the company have a policy on EEO? How was it developed?
  ii) Does the company have a policy on Affirmative Action?

M) INDUSTRIAL RELATIONS
i) Wages and Working Conditions:
  1. Is more than one Award relevant within the workplace? If so what is the principal Award?
  2. How many employees are covered by each Award?
  3. What are the major classifications of employees?
  4. Are over-award payments made?
  5. Is overtime required of employees? If so what is the average level of overtime required?
  6. Are incentives paid?
  7. Are performance reviews undertaken?
  8. How are the salaries of non-Award employees set?
  9. What other benefits exist for employees?

ii) Union involvement:
  1. What is the extent of union membership in the workforce?
  2. How many unions have coverage of the workforce?
  3. How many union delegates are present in the workplace?
  4. Which of the following formal activities are undertaken by the union in the workplace?
     meetings of delegates meetings with members
     formal communications with members
     meetings with management
  5. What is the role of the external full-time union officials
  6. What is the company experience of strike activity?
internally generated
state-national strikes

7. What formal dispute resolution policies and procedures exist within the company?
8. To what extent do demarcation problems affect industrial relations within the company?
9. What assistance is provided to the company by employer Associations?
INTERVIEW SCHEDULE 2: Workplace Reform

GENERAL

1. What should management do to assist the company to become a world competitive export company?
2. How integrated are the consultative processes associated with workplace reform?

QUALITY MANAGEMENT REFORM:

1. Has the company received preferred supplier rating from any of its PMV assembly customers? If so what ratings and when?
2. Did the company develop a TQM strategy to achieve this rating? If so who was primarily responsible for initiating the process?
3. What changes were required to be made to become a ‘preferred supplier’ under the new customer quality improvement requirements?
4. Who is responsible for continuous monitoring of the reform process?
5. What changes were introduced as a result of this strategy to the following?
   - production
   - quality monitoring
   - training
   - consultation
   - communication
6. Do you have a formalised Supplier rating system?
7. What structures were introduced to enable workers to participate in continuous quality improvement?
   - quality circles
   - consultative committees
   - unions
   - other
   a) What has been the degree of improvement in the following as a direct result of your quality program?
      - levels of scrap
      - amount of rework
      - stock turnover
      - lead time
      - product design
      - levels of absenteeism
      - machine downtime
      - customer complaints
      - warranty payments
      - after-sales service
8. How should change be introduced as part of quality management reform?

INSTITUTIONAL WORKPLACE REFORM:

1. What productivity improvements resulted from implementation of the following decisions by the AIRC?
   - second tier
   - award restructuring
   - enterprise bargaining

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2 Questions on workforce participation were directed at both managers and union officials.
2. What structural changes occurred to the following as a result of these agreements? Management
   workforce
   production
   training
   consultation
   communication

3. Was a Consultative Committee established for the company as part of this reform?

4. If a consultative committee was established:
   - when was it established?
   - what were the terms of reference?
   - what power did the committee have?
   - who was on the committee?
   - what training for committee members was undertaken?
   - what was the relationship between the committee and management and employees?
   - what issues were discussed by the consultative committee?
   - what decisions were made by the Committee
   - what do you see as the outcome of the consultative process?

5. How should change be introduced as part of institutional workplace reform?

**BEST PRACTICE REFORM:**

1. What changes were introduced as a result of the implementation of best practice reform?

2. Were these changes accompanied by any changes to any of the following?
   - management
   - workforce
   - production
   - training
   - consultation
   - communication

3. Was best practice reform associated with workforce participation. If so what form did participation take?
   - teams
   - training
   - consultative committees
   - workarea consultation

4. How should change be introduced as part of best practice reform?
APPENDIX 3
FOCUS GROUPS
**Focus Groups**

Joint union-management Focus Groups were established in each case study company. The number of Focus Groups varied according to the size of the company while the date of the Focus Group meetings varied according to the stage of reform implemented by the company.

The aim of the focus groups was to gauge management and employee attitudes first to existing operational practices of the company second to proposals for reform. In Auto Electrical two sets of focus groups were held because of the larger workforce. In Auto Air two sets of focus groups were held because changes introduced affected Production employees and Specialists differently.

**Focus groups were as follows:**
Auto Electrical - August 19th and 28th and September 5th and 12th 1991
Auto Mechanical - February 15th and 16th 1993

**Questions**

**A) Operational Practice:**

1. Would you buy the products made by the company?
2. What would the company have to do to sell more products?
3. What training/career prospects exist in the company?
4. Is promotion desirable? If so why is it desirable?
5. What new technology has been introduced in the last five years and how was it introduced?
6. What training would you like to do if you had the opportunity?
7. What should be included in a plan to make the company a world competitive export company?
8. What skills do you have that you do not use at work at present but feel you could use?

**B) Reform Requirements**

1. What changes have occurred to quality in the last five years?
2. How could the quality of product be improved?
3. What changes need to be made to your work area to enable you to produce better quality products without waste?
4. How could health and safety be improved?
5. What changes have occurred in equal employment opportunity in the last five years? What further changes are required?
6. How could training be improved?
7. What changes have occurred in consultation in the last 5 years?
8. If consultation is to work what changes will need to be made to: 
   - the way managers act and the skills they have?
   - the way workers act and the skills they have?
   - the role of the Consultative Committee members and the skills they have?
9. How would you describe the relationship between management and workers in the company?

**Auto Air**

Production Teams [Production and Stores employees and managers (A)]
Business Units [Specialist and managers (B)] October 14th 1992

**Questions:**

1. What are your main concerns about moving to a team-based/business unit organisation?
2. What needs to be done to assist the successful implementation of teams/business units?
3. What issues do you think team/business unit members will have to decide?
4. What training will be needed for team/business unit members?
5. What skills are available within the teams/business units.
APPENDIX 4

SURVEY
AUTO MECHANICAL CLIMATE SURVEY

During 1993 a Climate Survey of all employees was carried out for Auto Mechanical (Task Force Consultants 1993). It is repeated below as an example of action taken by the company to improve consultation. Some of the responses are referred to in the body of this thesis. The survey consisted of 36 mandatory and 4 optional questions. 30 questions took the form of a statement based on a Likert 5 point rating scale 4 questions catered for free text comments one required a ranking (1-9) and 5 were coded according to demographic responses. Respondents were asked to tick a box in answer to a statement as set out below as

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Partly Disagree</th>
<th>Undecided</th>
<th>Partly Agree</th>
<th>Agree.</th>
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Approximately 150 Questionnaires were distributed. A software package was utilised to analyse the data using frequency tables cross tabulations ranked order and work frequency as appropriate. 109 surveys were analysed (approx. 73% return rate). Almost 60% of these returns were from Production and 20% were from Quality Engineering and Manufacturing.

Q1. I like the kind of work I do. My job is important to me.
Q2. Management makes all the decisions. There is little scope for making independent judgements.
Q3. I often feel anxious and stressed about some parts of my job. I never seem to get on top of my work.
Q4. My company is a friendly and happy place. I get on well with my co-workers.
Q5. In my work there is importance placed on meeting customer needs. We concentrate on serving the customer.
Q6. I enjoy learning new ways of doing things. It is important to keep up with the latest methods and ideas.
Q7. My company stresses the importance of the workers. Staff morale is high.
Q8. My company emphasises progress and growth through the development of new ideas. Building new products and services is important.
Q9. My company stresses stability and security. Being capable and practical is important.
Q10. My company emphasises getting results. Achieving goals and targets is important.
Q11. My department is well organised and runs efficiently. The quality of work done by my group is high.
Q12. I am well informed about important issues that effect me. I understand fully what is expected of me in my job.
Q13. I do not usually get an opportunity to be involved in decisions that effect my work. Management is not really interested in my views.
Q14. My supervisor encourages me to obtain further education and training. Support for training is widespread in the company.
Q15. Management seems to be concerned about small and unimportant things. They don’t know what’s going on in the real world.
Q16. My company is a personal place. It is like an extended family. People seem to share a lot of themselves.
Q17. My company is a very dynamic and inventive place. People pay attention to rules and procedures to get things done.
Q18. My company is a very formal and structured place. People are concerned with getting the job done.
Q19. My company is a very production oriented place. People are concerned with getting the job done.
Q20. There are no opportunities for me to get a better job in the company. My career is at a stand-still.
Q21. I’m satisfied with the job done by my manager. My manager handles change well in my company.
Q22. I find it difficult to talk freely with my supervisor. Management is generally inaccessible and unapproachable.
Q23. My work area is a healthy and safe environment. The company pays attention to providing good facilities for staff.
Q24. The company is held together by *loyalty and tradition*. Workers feel strongly supportive of the Company.
Q25. The company is held together by a *commitment to innovation* and development. Being first with products and new ideas is important.
Q26. The company is held together by *formal rules and policies*. Following rules is important.
Q27. The company is held together by *task and goal achievements*. Everyone wants to meet their targets.
Q28. I’m encouraged to come up with *better ways* of doing things. I get involved in my job.
Q29. The company is not making the right *changes* necessary to compete effectively. Jobs are at risk.
Q30. I am always treated *fairly* by Management. I rarely if ever think about leaving for another job somewhere else.
Q31. Please indicate what department/group in which you work.
Q32. The best and most reliable means of obtaining information about what’s happening in the company is by:
   - Memorandums
   - Staff Meetings
   - Face to face with Supervisor
   - Company Newsletter
   - Monthly Communication Meetings
   - Union Meetings
   - Friends in Company
Q33. The things that stop me from doing my job better are:
Q34. The best aspects of the work I do are:
Q35. The worst aspects of the work I do are:
Q36. Other relevant comments:
AUTO AIR FOREPERSONS SURVEY

In May 1990 the company undertook a survey of forepersons to ascertain to extent to which this group of managers understood the opportunities provided by the Award restructuring process and concerns they may have about possible changes. The Report of this survey had provides some useful information for this case study and so the questions are repeated below

1. What do you understand ‘Award Restructuring’ to mean?
2. What do you feel will be the benefits of award restructuring?
3. What problems (if any) do you see arising from award restructuring?
4. Do you consider yourself informed about award restructuring?
5. What are the main tasks of your current job as foreperson?
6. Describe the major skills required by you in your present job.
7. How do you think your job will change with award restructuring?
8. What new skills do you feel will be needed to carry out your job?
9. What other factors besides training do you feel are necessary to assist you in moving to this new role?
10. What barriers or obstacles do you see that may get in the way of your moving to this new role? How can these be overcome?
11. What do you believe you will gain from moving to this new role?
12. Do you feel involved enough in the restructuring process? If no How do you feel you can become more involved?