Designing a framework for the alignment of e-business strategy and consultant engagement processes for Australian SMEs: a cross-case analysis

Shirley A. Bode
Edith Cowan University

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Designing a framework for the alignment of e-business strategy and consultant engagement processes for Australian SMEs: a cross-case analysis.

Shirley Ann Bode
Bachelor of Applied Science, (Curtin University)

Thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy, Edith Cowan University

Faculty of Business and Public Management

Date: August 2002
USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.
Abstract

The majority of SMEs have neither the internal expertise nor financial resources to enable in-house development of electronic commerce and therefore turn to the services of website design consultants to assist them. Unfortunately, they often engage consultants without any clear idea of their intended e-business strategy and without due care as to effective engagement processes. This frequently leads to ineffective e-business development and a highly disaffected group of small entrepreneurs. The study suggests that there is a significant gap between the intended strategies of SMEs and the actual e-business strategy implemented.

The study aimed to investigate the relationship between Australian Small and Medium Enterprises, Internet strategy and the engagement of website design consultants. The objectives of the research project were firstly, to identify factors including SME engagement of website design consultants, and other factors presented in previous research that may influence the success of online organizations. Secondly, to construct a framework for analysing those factors which may influence the success of online organizations. Finally, to provide a set of critical development factors that may be used by Australian SMEs to implement the online organisation.

The research methodology chosen used an interpretivist perspective and incorporated a multiple cross-case study approach. Four research instruments were employed in the study to enable triangulation of data and to increase validity and reliability. A pilot study was conducted and the results were used to refine
and develop the data collection methods, procedures and theory development for the main study.

The expected outcomes of the research project included developing a framework to enhance negotiations between website design consultants and Australian SMEs; to design a set of critical development factors, in relation to Internet strategy and consultant engagement, that may be used by Australian SMEs and consultants to facilitate the implementation of the online organization; and to provide a summarised report to Dow Digital in fulfilment of the requirements of the research funding, and to publish a number of papers based on the research project.

This study was funded by the Australian Research Council (ARC) and Dow Digital as an accepted project in the SPIRT scheme 1999-2002. Dow Digital is a privately owned, national, e-business services company with offices in Perth, Adelaide, Melbourne and Sydney, Australia. This study forms part of current research studies on Australian Small and Medium-sized Enterprises (SMEs) on the Internet in the School of Management Information Systems at Edith Cowan University, Perth, Western Australia.
Acknowledgments

I would like to sincerely thank my Principal Supervisor, Professor Janice Burn for her invaluable support and guidance throughout the preparation of this thesis. Her encouragement and advice have been central to the completion of this research. I would also like to thank my Associate Supervisor, Associate Professor Dieter Fink who provided valuable advice, support and critical feedback.

My grateful thanks are extended to the SMEs and consultants who generously gave their time to participate in the study through pilot tests, interviews and being willing subjects of online focus groups.

I express my gratitude to Edith Cowan University and Dow Digital for the three year scholarship to undertake the research for this thesis.

I would also like to thank Kim Gifkins and Jacqui Kingham for their proof-reading of several early chapters and their valuable feedback on the scope and direction of this research.

Finally, I would like to thank my family for their enduring support throughout the time it has taken to write this thesis. I thank Fiona Callan for her warmth, encouragement and belief in my abilities and my daughter Vaya Bode for her innate ability to keep me grounded and for making me laugh.
Declaration

"I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution in higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text."

Signed

Date: 27th August 2023
Table of Contents

1. INTRODUCTION ....................................................................................... 17
  1.1 Background .......................................................................................... 18
  1.2 Significance of the study ...................................................................... 21
  1.3 Research Questions ............................................................................. 22
  1.4 Ethical Considerations ......................................................................... 22
  1.5 Research Limitations ........................................................................... 23
  1.6 Organisation of the Thesis ................................................................... 23
  1.7 Summary ............................................................................................... 25

2. LITERATURE REVIEW ............................................................................. 26
  2.1 Definition of Small and Medium Enterprises (SMEs) ...................... 27
  2.2 Importance of SMEs to the Australian Economy ....................... 31
  2.3 Definitions of Electronic Commerce ................................................. 35
    2.3.1 Small and Medium Enterprises (SMEs) and Electronic Commerce -
          Historical Background ................................................................. 40
  2.4 Opportunities and barriers for SMEs and Electronic Commerce – overview ... 46
    2.4.1 World trends in Internet retailing .............................................. 47
    2.4.2 Electronic commerce opportunities ........................................ 49
    2.4.3 Barriers to SME uptake of business to consumer electronic commerce .... 55
  2.5 Definition of Website Design Consultants ........................................ 68
    2.5.1 Consultant Engagement ........................................................... 70
    2.5.2 SMEs and Consultant Engagement ......................................... 78
  2.6 Internet Strategy .................................................................................. 83
  2.7 Theoretical Framework ...................................................................... 91
  2.8 Summary ............................................................................................ 94

3. RESEARCH METHODOLOGY ................................................................. 97
  3.1 Introduction ........................................................................................ 97
  3.2 Philosophical Perspective – Interpretivist ....................................... 98
  3.3 Methodology ....................................................................................... 101
    3.3.1 Action Research ......................................................................... 101
    3.3.2 Grounded Theory ....................................................................... 102
    3.3.3 Ethnography ................................................................................ 102
<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.4 Case studies</td>
<td>103</td>
</tr>
<tr>
<td>3.3.5 Issues in Case Project Research</td>
<td>108</td>
</tr>
<tr>
<td>3.4 Reliability and Validity</td>
<td>108</td>
</tr>
<tr>
<td>3.4.1 Generalizability</td>
<td>110</td>
</tr>
<tr>
<td>3.5 Ethics</td>
<td>110</td>
</tr>
<tr>
<td>3.6 Data Collection Procedure</td>
<td>112</td>
</tr>
<tr>
<td>3.6.1 Primary Data</td>
<td>112</td>
</tr>
<tr>
<td>3.6.1.1 Interviews</td>
<td>112</td>
</tr>
<tr>
<td>3.6.1.2 Virtual Focus Groups</td>
<td>113</td>
</tr>
<tr>
<td>3.6.1.3 Technical details of the virtual focus groups</td>
<td>116</td>
</tr>
<tr>
<td>3.6.2 Secondary Data</td>
<td>118</td>
</tr>
<tr>
<td>3.6.2.1 Content analysis of consultants' websites</td>
<td>119</td>
</tr>
<tr>
<td>3.7 Online Training Course for SMEs</td>
<td>121</td>
</tr>
<tr>
<td>3.8 Sample</td>
<td>122</td>
</tr>
<tr>
<td>3.9 Data Analysis</td>
<td>124</td>
</tr>
<tr>
<td>3.10 Coding</td>
<td>125</td>
</tr>
<tr>
<td>3.10.1 Verifying the data</td>
<td>126</td>
</tr>
<tr>
<td>3.10.2 N*Vivo database software as a tool for storing, coding and managing the data</td>
<td>127</td>
</tr>
<tr>
<td>3.11 Inter-Rater Reliability</td>
<td>132</td>
</tr>
<tr>
<td>3.12 Pilot Study</td>
<td>132</td>
</tr>
<tr>
<td>3.13 Presentation of the findings</td>
<td>133</td>
</tr>
<tr>
<td>3.14 Summary</td>
<td>135</td>
</tr>
<tr>
<td>4. PILOT STUDY</td>
<td>136</td>
</tr>
<tr>
<td>4.1 Pilot Sample</td>
<td>136</td>
</tr>
<tr>
<td>4.2 Background Information of Pilot SMEs</td>
<td>137</td>
</tr>
<tr>
<td>4.3 Results and Analysis of the pilot study</td>
<td>138</td>
</tr>
<tr>
<td>4.4 Issues arising in the pilot study</td>
<td>140</td>
</tr>
<tr>
<td>4.4.1 Pricing and service</td>
<td>140</td>
</tr>
<tr>
<td>4.4.2 Consultant Experience</td>
<td>141</td>
</tr>
<tr>
<td>4.4.3 Internet Strategy</td>
<td>142</td>
</tr>
<tr>
<td>4.5 Concluding statement of the pilot study</td>
<td>144</td>
</tr>
</tbody>
</table>
4.6 Implications for the main research study ........................................ 145
4.7 Summary ....................................................................................... 147
5. Results and Preliminary Analysis - Interviews and Focus Groups ...... 149
  5.0 Introduction ................................................................................. 149
  5.1 N*Vivo as a data analysis tool .................................................. 150
  5.2 Descriptive Analysis .................................................................. 155
    5.2.1 Characteristics of the Case SMEs .......................................... 155
  5.3 Background Information: Consultants ....................................... 166
    5.3.1 Consultant characteristics .................................................. 166
  5.4 Electronic Commerce Website Activity Model ........................... 168
  5.5 Interview and Focus Group Results ............................................ 171
    5.5.1 Details of the online focus groups ........................................ 172
    5.5.2 Inter-rater reliability ............................................................ 178
    5.5.3 SME Interview and focus group question results .................. 179
    5.5.4 How did you plan the development of your website? ............ 180
    5.5.5 SMEs and Consultant Engagement ........................................ 183
    5.5.6 When engaging the consultant how much input did the SME have in the engagement process? ........................................... 187
    5.5.7 Did the consultant take into account your individual business needs? ................................................................. 191
    5.5.8 Did the costs of building the website meet your stated or expected budget? ................................................................. 193
    5.5.9 Did your consultant have the experience or expertise to strategically manage your electronic commerce initiative ................. 195
    5.5.10 How do you feel the consultant could improve their service. 197
    5.5.11 How would you describe your relationship with your consultant? ................................................................. 201
    5.5.12 How would you describe your experience in engaging a website design consultant? ......................................................... 203
    5.5.13 Electronic Commerce success ............................................. 206
    5.5.14 Previous experience in engaging a consultant ...................... 210
  5.6 Consultant Interview Results ...................................................... 212
    5.6.1 Consultants and Gable's (1991) 12-phase model ................... 213
    5.6.2 Do you have a written policy for working with SMEs? .......... 214
    5.6.3 Do you take into account the SMEs individual business needs? 214
5.6.4 What research do you undertake to assist in planning electronic commerce websites? 216
5.6.5 How would you describe working with SMEs? 217
5.6.6 How would you rate electronic commerce success? 218
5.6.7 How useful do you think consultants are for SMEs? 219
5.6.8 What do you believe makes a good consultant? 220
5.7 Content analysis of consultant websites 221
5.7.1 Themes and patterns in the content analysis 226
5.8 Preliminary Analysis and Summary 232
6. Development Consultant Engagement Online Training Course (CEOTC) for SMEs 236
6.1 Course Development 236
6.2 Planning 238
6.3 Learning Outcomes 239
6.4 Website and Course Development 241
6.4.1 Use of forms in the website 244
6.4.2 Summary of website development 248
6.5 Website Design 249
6.5.1 Colour and layout 254
6.5.2 Navigation of the site 255
6.6 Module 1 255
6.7 Module 2 257
6.8 Module 3 260
6.9 Module 4 263
6.10 Module 5 267
6.11 Summary 270
7. Results – Trial of online training course for SMEs 271
7.0 Introduction 271
7.1 Characteristics of the participants 276
7.2 Learning Outcomes 278
7.3 Questionnaire results 282
7.4 Feedback Form Results 284
7.5 Implications for the study 287
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.6</td>
<td>Summary</td>
<td>289</td>
</tr>
<tr>
<td>8.</td>
<td>DISCUSSION AND CONCLUSION</td>
<td>291</td>
</tr>
<tr>
<td>8.1</td>
<td>Summary of the main findings</td>
<td>291</td>
</tr>
<tr>
<td>8.2</td>
<td>Q1: What explicit e-business strategies do SMEs employ prior to development of a website</td>
<td>293</td>
</tr>
<tr>
<td>8.3</td>
<td>Q2: What is the structure of the engagement process of website consultants</td>
<td>298</td>
</tr>
<tr>
<td>8.4</td>
<td>Q3: How are the alignment of business and web development strategies managed?</td>
<td>305</td>
</tr>
<tr>
<td>8.5</td>
<td>Q4: To what extent do SMEs feel their individual business needs are understood by website design consultants</td>
<td>309</td>
</tr>
<tr>
<td>8.6</td>
<td>Q5: What critical development factors can be identified to enable the successful implementation of online business to consumer strategies for SMEs</td>
<td>313</td>
</tr>
<tr>
<td>8.7</td>
<td>Recommendations for Further Study</td>
<td>316</td>
</tr>
<tr>
<td>8.8</td>
<td>The Significance of the Study</td>
<td>316</td>
</tr>
<tr>
<td></td>
<td>Bibliography</td>
<td>318</td>
</tr>
<tr>
<td></td>
<td>List of refereed publications arising from this research</td>
<td>332</td>
</tr>
<tr>
<td></td>
<td>Appendix 1</td>
<td>333</td>
</tr>
<tr>
<td></td>
<td>Appendix 2: Consent Form</td>
<td>335</td>
</tr>
<tr>
<td></td>
<td>Appendix 3: SME Interview Schedules</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>Appendix 4: Consultant Interview Schedule</td>
<td>339</td>
</tr>
<tr>
<td></td>
<td>Appendix 5: N*Vivo Coding List</td>
<td>342</td>
</tr>
<tr>
<td></td>
<td>Appendix 6: Example of HTML Code for CEOTC</td>
<td>345</td>
</tr>
</tbody>
</table>
List of Tables

Table | Chapter One | Page No:
--- | --- | ---
1. Research areas affecting SMEs and electronic commerce practices | 20

Chapter Two:

2.1 U.S. Census Bureau statistics | 28
2.2 Japanese SME definition | 29
2.3 SME definition used in this study | 30
2.4 SME online activities | 37
2.5 Taxonomy of electronic commerce activities | 38
2.6 Electronic Commerce Website Activity Model | 40
2.7 Technology and People | 66
2.8 Gable's 12-phase model for consultant Engagement | 79
2.9 Consultant engagement for first time computerization in SMEs | 81
2.10 Cragg's Internet Strategy | 88

Chapter Three:

3.1 Seven Principles of Interpretive Research (Klein & Myers, 1991) | 100

Chapter Four:

4.1 Pilot study and Website Activity Model | 137
4.2 Background Information of pilot SMEs | 138
4.3 Pilot SMEs and Gable's 12 phase model | 138
Chapter Five:

5.1 Case SMEs – Background Information
5.2 Business type
5.3 Geographic distribution of businesses
5.4 SME employment profile
5.5 SME staff responsible for website initiation
5.6 Employment increase
5.7 Website start dates
5.8 Website costs
5.9 Increase in customers attributed to website
5.10 Percentage sales turnover increase
5.11 Location of website customers
5.12 Where SMEs found website development consultants
5.13 Consultant Background Information
5.14 Pricing Schedule
5.15 Where consultants located clients
5.16 Case SMEs and the ECWAM
5.17 Inter-rater reliability
5.18 SME primary and secondary goals
5.19 Case SMEs and Gable’s 12 phase model
5.20 Project timelines
5.21 Expected project completion timeframe
5.22 Areas for consultant improvement
5.23 Consultant engagement & adherence to Gable’s 12 phase model
5.24 Participant rated electronic commerce success
5.25 SME and previous consultant experience
5.26 SME responses to previous consultant experiences
5.27 Consultants and Gable’s 12 phase model
Chapter 6:
6.1 Quiz 1 257
6.2 Quiz 2 259
6.3 Quiz 3 263
6.4 Quiz 4 267
6.5 Quiz 5 270

Chapter 7:
7.1 SME employment profile 277
7.2 SME background information 277
7.3 Results of questionnaire 283
List of Figures

Figure | Page No:
--- | ---

**Chapter Two:**

2.1 Small business employment growth in Australia | 32
2.2 ABS statistics: Small business in Australia | 33
2.3 Australian Businesses using I.T. | 44
2.4 Business use of selected Information Technologies | 45
2.5 Worldwide electronic commerce spending 1999-2003 | 48
2.6 Business to business electronic commerce | 50
2.7 Percentage of agency suppliers paid electronically | 52
2.8 Percentage of dollars spent by Australian consumers via the Internet | 54
2.9 Barriers to electronic commerce uptake | 56
2.10 Sonet and SDH bandwidth | 58
2.11 Basic HTML code | 59
2.12 Disclosure of personal identifying information | 61
2.13 Global outsourcing | 71
2.14 Outsourcing growth areas in Australia | 71
2.15 Categories of Consultant engagement | 80
2.16 Henderson & Venkatraman’s Strategic Alignment Model | 89
2.17 Research framework for this study | 93

**Chapter Three:**

3.1 Yin’s Case Research Method | 105
3.2 Virtual Focus Group chat screen | 117
3.3 N*Vivo project screen | 128
3.4 Coded transcript with coding nodes | 130
3.5 Methodology flowchart | 134
Chapter Five:

5.0 N*Vivo coded transcript with coding nodes 152
5.1 Screenshot of online focus group website 175
5.2 SME online focus group in session 176
5.3 Log file of online focus group 177
5.4 Strategic Partnership Model 206
5.5 Word search in N*Vivo 224
5.6 Excel chart – frequency count 225
5.7 Strategic Partnership Model 234

Chapter 6:

6.1 The systems approach to course design 240
6.2 Example of forms and radio buttons in CEOTC 247
6.3 Development of CEOTC 248
6.4 Linear structure of website 250
6.5 Homepage of CEOTC 251
6.6 Screen view of module 1 256
6.7 Working with contracts 266

Chapter 7:

7.1 Coded transcript 275
7.2 Instructional systems design 279
7.3 Strategic partnership model 289

Chapter 8:

8.1 Strategic partnership model 297
8.2 Gable’s 12 phase model 299
8.3 Strategic partnership model 307
8.4 Strategic partnership model 315
### List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1</td>
<td>Statement of Disclosure and Informed Consent</td>
<td>333</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Consent Form</td>
<td>335</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>SME Interview Schedule</td>
<td>336</td>
</tr>
<tr>
<td>Appendix 4</td>
<td>Consultant Interview Schedule</td>
<td>339</td>
</tr>
<tr>
<td>Appendix 5</td>
<td>N*Vivo coding list</td>
<td>342</td>
</tr>
<tr>
<td>Appendix 6</td>
<td>HTML code for Consultant Engagement Online Training Course (HTML)</td>
<td>345</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

Research has found that SMEs have been reluctant to adopt electronic commerce principles and practices in their day- to-day business transactions (DCITA, 2000; Beer, 1999; DIST, 1998; Shern, 1998; Yen, 1998). The majority do not employ IT Managers or specialists. In the SME sector IT decisions and operational factors tend to be relegated to the realm of the Accountant, Manager or Owner-Operator and are mostly seen as a peripheral and sometimes annoying business factor (Prakash, 1998; Shern, 1998; DIST, 1998). Consequently, many SMEs tend to rely on external consultants to design and implement websites and in so doing often outsource their e-business strategy. This study uses the terms electronic commerce and electronic business interchangeably reflecting the shift in the literature over recent years.

In Australia, it appears that Small and Medium Enterprises (SME) are hesitant in their approach to electronic commerce (SBI, 2001; CEC, 1996; DCITA, 2000). Electronic Commerce is not seen as a core activity for most small enterprises in Australia and it is quite often considered too expensive, technologically complicated and unsuitable for the small business environment (SBI, 2001; DIST, 1998a; ISBR, 1998; Small Business Index, 1998). Whilst there has been some growth in SMEs initiating electronic business processes, this growth is still considered slow. In 2001 only 31% of Australian SMEs had a dedicated
homepage, a growth of 19% over the previous 12 months (SBI, 2001). However, in the United States electronic commerce is growing at an exponential rate (USIC, 2000).

This thesis describes the process undertaken to analyse the critical development factors that may be used by Australian SMEs to align Internet strategy with consultant engagement processes. The first factor explored was SMEs engaging website design consultants in an attempt to gauge the extent to which the SMEs felt their business needs were understood and met by the consultants. The second factor explored was the Internet strategies of Consultants and how this may affect the outcomes of the SME client/consultant relationship.

An extensive literature review was conducted, and from this the theoretical framework was developed to examine the interrelationship between SMEs business strategies and Consultant Internet strategies.

1.1 Background

According to recent research Australian SMEs are still reluctant to venture into the world of electronic commerce (ABS, 2001; DCITA, 2000; DIST, 1998a; ISBR, 1998; Poon & Swatman, 1997; SBI, 2001). A report by the Institute of Small Business Research (ISBR, 1998) found that many SMEs were yet to be convinced of the merits of electronic commerce, or its relevance to their own particular business. A “technology phobia” was apparent among the small business operators surveyed. The main concerns identified were electronic commerce setup costs, the “intangible” nature of electronic commerce, security issues and the general hype and confusion surrounding concepts such as “the
Net” and the “Information Superhighway” (Beer, 1999; DIST, 1998a; Hoffman, Novak, & Chaterjee, 1995; Rose, Khoo, & Straub, 1999; Shern, 1998; Yen, 1998). This lead to a lack of trust felt by SMEs toward electronic commerce activities (ISBR, 1998).

The Department of Industry, Science and Tourism (DIST, 1998a) also identified a number of barriers to online participation including “resistance to change, distrust of information technology and perceived lack of need by SMEs to use electronic commerce” (DIST, 1998a, p8). It is believed that SME lack of confidence and trust in electronic commerce activities will ultimately penalise this sector in terms of cost, time and missed opportunities, including Government transactions and access to the global marketplace. It has been estimated that up to 20% of SMEs may fail if they do not adopt electronic commerce practices and integrate these practices into their business strategies and planning processes (DCITA, 2000, p.5).

Building a model for online success would enable SMEs in Australia to overcome the reluctance identified by the above research. Whilst extant research has identified several critical factors for building online success (Angehrn, 1997; Bergeron, Raymond, Gladu, & Leclerc, 1998; Brown, Dalton, Desai, & Harris, n.d.; Centre, 1996; Cragg, 1998; DIST, 1998a; Lawrence & Chau, 1998; Poon & Swatman, 1997), gaps in the literature have also been identified (see Table 1):
<table>
<thead>
<tr>
<th>Factors</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management commitment to the EC process</td>
<td>(DeLone &amp; R, 1992; Gable, 1991; Greenwood, 1981; Harrison, Mykytyn, &amp; Rienenschneider, 1997; Thong, Yap, &amp; Raman, 1996; Yap, Soh, &amp; Raman, 1992)</td>
</tr>
<tr>
<td>Perceived benefit of EC to SMEs</td>
<td>(Centre, 1996; Hoffman et al., 1995; McCombie, 1999; Ng, Pan, &amp; Wilson, 1998; Poon &amp; Swatman, 1997; Prakash, 1998; Shern, 1998)</td>
</tr>
<tr>
<td>Industry Association support</td>
<td>(Centre, 1996; DIST, 1998a)</td>
</tr>
<tr>
<td>Government Incentives to encourage uptake of EC by SMEs</td>
<td>(Centre, 1996; DCITA, 2000; DIT, 2002)</td>
</tr>
<tr>
<td>Internet Strategy</td>
<td>(Angehrn, 1997; Bergeron et al., 1998; Cragg, 1998; Lawrence &amp; Chau, 1998; Poon &amp; Swatman, 1995)</td>
</tr>
<tr>
<td>Gaps in the Literature</td>
<td><strong>Related Research</strong></td>
</tr>
<tr>
<td>Alignment of SME Internet strategy and Consultant Strategy</td>
<td>Strategic Alignment Theories (Burn, 1997, 2001; Henderson &amp; Venkatraman, 1992; Sauer &amp; Burn, 1997)</td>
</tr>
<tr>
<td>SME engagement of Website Design Consultants</td>
<td>SMEs and External Consultants: (DIST, 1998b; Gable, 1989a, 1991; Kole, 1983; Yap et al., 1992)</td>
</tr>
</tbody>
</table>

Based on the above research and identified gaps, the purpose of this study was to develop a framework to identify and analyse other critical factors which may lead to the success of building the online organization in Australia. Based on this premise the researcher designed a website for use as an online training course for SMEs wishing to engage a consultant and outsource or develop an Internet strategy. The course was designed based on the concepts explored in the literature review and the results and analysis of the interviews and focus groups. The aim of the course was to produce guidelines for SMEs considering electronic commerce initiatives and using external expertise to do so. The course was titled 'Consultant Engagement Online Training Course (CEOTC)'.

\[20\]
1.2 Significance of the study

- In Australia there is an estimated 1,112,200 private sector small businesses accounting for more than 51% of the private sector workforce (ABS, 2000a).

- Electronic Commerce is fast becoming an important issue in regard to business-to-consumer transactions; globalization of markets and an area where the Australian SME sector can grow;

- Government departments including the Australian Taxation Office (ATO) and the Department of Industry and Technology (DIT) are moving toward a fully integrated online environment with their industry partners. DIT manages government tenders, the Government Electronic Market (GEM) and the Government Contracting Information Bulletin Board (DIT, 2002). Therefore, if Australian SMEs are reluctant to go “online” they will miss out on Government business;

- No identified research on the impact of website design consultants on the SME sector.

- A research gap exists in relation to SMEs development of e-business strategies and consultant engagement processes and how the two areas interrelate and impact on e-business success.

This study has formulated five research questions that have been developed to systematically address gaps in the literature.
1.3 Research Questions

1. What explicit e-business strategies do SMEs employ prior to development of a website;

2. What is the structure of the engagement process of website consultants;

3. How are the alignment of business and web development strategies managed;

4. To what extent do SMEs feel their individual business needs are understood by website design consultants;

5. What critical development factors can be identified to enable the successful implementation of online business to consumer strategies for SMEs?

1.4 Ethical Considerations

Before conducting interviews and focus groups, the participants were given a Statement of Disclosure and Informed Consent approved by the Human Research Ethics Committee of Edith Cowan University. All participants signed the Statement of Disclosure and Informed Consent which stated that they were aware of the purpose of the research and were willing for the results to be published providing that anonymity was preserved.

Prior to the interviews being conducted the interview schedules were submitted for approval to the Ethics Committee of Edith Cowan University. Following approval from the Ethics Committee, the interviews and focus groups were conducted.

To maintain the anonymity of the participants each respondent was allocated a research code. Each respondent was coded as SME#1 through to SME#30 and were referred to by code throughout the study.
1.5 Research Limitations

The first limitation of the study is the sample population, due to the non-probability sampling plan it was difficult to ensure a representative sample across all SME sectors, therefore introducing sampling bias. Secondly, due to the qualitative nature of the study generalisability to other settings is limited. Offsetting this is the amount of information obtained from the detailed examination used to obtain knowledge about SME, consultant engagement practices and Internet strategies.

1.6 Organisation of the Thesis

This thesis has been structured into eight chapters so as to organize the research study in a cohesive and ordered fashion that follows a logical path from the introduction through to the conclusion.

This study set out to identify the factors which may lead to the success of building the online SME in Australia. The Literature Review is presented in Chapter Two and examines the literature relevant to the understanding of Australian SMEs and business to consumer electronic commerce. The research areas examined include Australian SMEs importance to the economy and employment, the barriers and opportunities faced by SMEs when considering business to consumer electronic commerce. SMEs and consultant engagement practices, Internet strategy and strategic alignment theory.

The literature review included extensive web searching, review of extant research in journals, conference proceedings and monographs, survey results and information gathered from local, interstate and international Small Business Development Organizations and Centres for Electronic Commerce. Definitions of
SMEs, electronic commerce and website design consultants have been included to clarify the boundaries of this study.

Chapter Three outlines the design of the study and describes the stages of the data collection process: interviews with SMEs, interviews with consultants and online focus groups of Interstate SMEs. Details of the data collection are given and the data analysis procedures are explained.

Chapter Four details the pilot study conducted prior to the main study in order to refine and review the data collection methods and procedures.

Chapter five presents the results of the study including the results of the data collected through interviews with SMEs, online focus groups and consultant interviews. Demographic characteristics and descriptive statistics are given to gain a clear understanding of the data and the nature of the sample population.

Chapter Six introduces and describes the design, format and function of the Consultant Engagement Online Training Course (CEOTC). Chapter seven presents the data from the trial of the CEOTC and chapter eight provides a final analysis and interpretation of the data from the study, the chapter then details the conclusions drawn from the results of the present investigation and a number of recommendations are made with respect to SMEs and consultant engagement for website development. The implications of the study are then discussed, with limitations and suggestions for further research being given.
1.7 Summary

Chapter One has introduced the rationale for the thesis. This chapter provided the background to the issues surrounding Australian small and medium enterprises and electronic commerce implementation. The problems in the area have been identified and research questions developed to address these problems. Guidelines in the form of an online training course for SMEs have been developed to assist SMEs in implementing effective electronic commerce initiatives.

The following chapter will present a synthesis of research studies from the literature that relate to these problems. The literature search has focused on studies carried out on Australian SMEs and consultant engagement practices, development of Internet and electronic commerce strategies, and strategic alignment theory.
2. LITERATURE REVIEW

The theoretical framework used to guide this study is described in this chapter and the literature relevant to the understanding of Australian SMEs and business to consumer electronic commerce is examined. The literature review also identifies gaps in the literature and poses essential questions in relation to the research topic. It will be shown that a gap exists in the literature that could outline new approaches to client/consultant engagement processes and Internet strategy for the SME sector.

The research areas examined include the importance of Australian SMEs to the economy, the barriers faced by SMEs when considering business to consumer electronic commerce; SMEs and consultant engagement practices; SMEs and Internet strategy; and strategic alignment theory. The literature review included review of extant research in journals, conference proceedings and monographs, survey results, information gathered from local, interstate and international Small Business Development Organizations and Centres for Electronic Commerce, and extensive web searching. Definitions of SMEs, electronic commerce and website design consultants have been included to clarify the boundaries of this study.

The chapter concludes with a summary of the current literature as it relates to Australian SMEs and business to consumer electronic commerce and provides a framework for the research questions explored in this study.
2.1 Definition of Small and Medium Enterprises (SMEs)

There is no definitive model of a small or medium enterprise in Australia. The Small Business Index defines a small business as having up to 19 full-time employees and a medium business as having between 20 and 200 employees however, these figures do not include agricultural businesses (SBI, 1998). The Small Business Development Corporation (SBDC) of Western Australia's definition of small business is an enterprise with less than 5 employees (micro-business), less than 20 employees in the non-manufacturing sector and less than 100 employees in the manufacturing sector. The SBDC does not define medium businesses (SBDC, 1999).

The Australian Bureau of Statistics (ABS) however, does include agricultural enterprises and defines SMEs as enterprises with less than $400,000 per annum turnover. The ABS has two distinct categories for defining small and medium enterprises. The first is based on management or organisational characteristics, and includes the following criteria:

* A SME is independently owned and operated;
* it is closely controlled by owner/managers, who contribute most or all of the operating capital; and
* the principal decision making functions rests with the owner/manager (ABS, 2000a).

The second definition is statistical and based on employment staffing levels categorised as full-time equivalent staff (FTE). Thus a micro business is defined
as less than 5 FTE staff, small business as employing between 5 and 20 FTE staff, medium business as employing between 20 and 200 FTE staff and large business as employing more than 200 FTE staff (ABS, 2000a).

Worldwide, definitions of SME are varied and inconsistent. In the United States, the US Census Bureau does not give a definition of small business, but provides statistics on employment size, sales and annual turnover as shown in Table 2.1 below (US Census Bureau, 2001).

<table>
<thead>
<tr>
<th>Employment size</th>
<th>Firms</th>
<th>Establishments</th>
<th>Sales or receipts ($1,000)</th>
<th>Employment</th>
<th>Payroll Annual ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer firms covered in Statistics of U.S. Business</td>
<td>5,579,177</td>
<td>6,941,822</td>
<td>n/a</td>
<td>108,117,731</td>
<td>3,309,405,533</td>
</tr>
<tr>
<td>No employees (as of March 12)</td>
<td>711,899</td>
<td>713,512</td>
<td>n/a</td>
<td>0</td>
<td>31,634,539</td>
</tr>
<tr>
<td>1 to 4 employees</td>
<td>2,664,452</td>
<td>2,669,307</td>
<td>n/a</td>
<td>5,584,470</td>
<td>136,798,012</td>
</tr>
<tr>
<td>5 to 9 employees</td>
<td>1,011,849</td>
<td>1,025,904</td>
<td>n/a</td>
<td>6,643,285</td>
<td>159,689,162</td>
</tr>
<tr>
<td>10 to 19 employees</td>
<td>600,167</td>
<td>639,805</td>
<td>n/a</td>
<td>8,047,650</td>
<td>207,062,798</td>
</tr>
<tr>
<td>20 to 49 employees</td>
<td>376,675</td>
<td>468,332</td>
<td>n/a</td>
<td>11,317,087</td>
<td>305,103,236</td>
</tr>
<tr>
<td>50 to 99 employees</td>
<td>117,682</td>
<td>206,171</td>
<td>n/a</td>
<td>8,060,527</td>
<td>226,127,921</td>
</tr>
<tr>
<td>100 to 499 employees</td>
<td>80,075</td>
<td>307,294</td>
<td>n/a</td>
<td>15,411,390</td>
<td>446,353,485</td>
</tr>
<tr>
<td>500 to 999 employees</td>
<td>8,055</td>
<td>99,276</td>
<td>n/a</td>
<td>5,547,037</td>
<td>166,642,047</td>
</tr>
<tr>
<td>1,000 to 1,499 employees</td>
<td>2714</td>
<td>55,034</td>
<td>n/a</td>
<td>3,304,540</td>
<td>104,261,858</td>
</tr>
<tr>
<td>1,500 to 2,499 employees</td>
<td>2,200</td>
<td>70,428</td>
<td>n/a</td>
<td>4,211,469</td>
<td>136,352,742</td>
</tr>
<tr>
<td>2,500 to 4,999 employees</td>
<td>1,654</td>
<td>99,271</td>
<td>n/a</td>
<td>5,717,754</td>
<td>197,883,555</td>
</tr>
<tr>
<td>5,000 to 9,999 employees</td>
<td>869</td>
<td>109,680</td>
<td>n/a</td>
<td>6,086,847</td>
<td>222,289,218</td>
</tr>
<tr>
<td>10,000 employees or more</td>
<td>886</td>
<td>477,808</td>
<td>n/a</td>
<td>28,185,675</td>
<td>969,206,960</td>
</tr>
</tbody>
</table>

The United States Small Business Administration (SBA) used a complex criteria to define small business. Their criteria relied on business size, employment and sales (SBA, 1998). The SBA defines small business Small Office/Home Office (SOHO) as having less than five employees; small business 5-99 employees and
medium business as 100-999 employees. The SBA’s medium business definition would be considered in the medium to large business category in Australia as defined by the Australian Bureau of Statistics (2001).

In the UK, the Department of Trade and Industry (DTI) defines a small enterprise as one with less than 50 employees, medium as 50-249 employees and large more than 500 employees (DTI, 2000). The DTI reported that of the entire business population of 3.7 million enterprises, only 24,000 were medium sized (50 to 249 employees) and less than 7,000 were large (250 or more employees). Small businesses, including those without employees, accounted for over 99% of all businesses, and represented 45% of non-government employment (DTI, 2000).

In Singapore SMEs are generally defined as having at least 30% local equity, fixed productive assets (defined as net value of buildings, machinery and equipment) not exceeding $S15 million. The final criteria is that employment size must not exceed 200 workers for non-manufacturing companies (SPSB, 2001).

Japan bases its definition on both number of employees, industry sector and capitalisation as shown in Table 2.2 below:

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Number of employees</th>
<th>Capitalization (million yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining &amp; manufacturing</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Wholesale</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Retail</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Services</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

Due to the inconsistencies associated with defining SMEs both within Australia and overseas, it was important to formulate a standardised definition of SMEs for
the purpose of this study. Therefore, a definition based on the Australian Bureau of Statistics (ABS) and the Western Australian Small Business Development Corporation (SBDC) criteria were used to provide the following refined definition of a SME, suited to the Australian context.

Four categories were identified based on employment staffing levels and presented in Table 2.3 below. They included non-employing micro businesses (owner/operator); micro business of between 1-5 employees; small businesses 6-20 employees and medium business less than 200 employees.

<table>
<thead>
<tr>
<th>Table 2.3 SME definition used in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-employing micro business (owner/operator)</td>
</tr>
<tr>
<td>micro-business</td>
</tr>
<tr>
<td>small business</td>
</tr>
<tr>
<td>medium business</td>
</tr>
</tbody>
</table>

This definition incorporates all the important categories for classifying SMEs in the Australian context, including micro-business. Micro-businesses are considered a significant contributor to the Australian economy and employment figures. Micro-businesses contribute $20,193 million to industry gross product and employ over one third of small business employees (ISR, 2000).
2.2 Importance of SMEs to the Australian Economy

According to a report by the Organisation for Economic and Cooperative Development (OECD), Promoting SMEs in the new economy is a challenge for governments, SMEs are considered a key factor for economic and employment growth in all OECD member countries. The OECD comprises 30 member countries, including Australia, in an organisation that provides governments a setting in which to discuss, develop and perfect economic and social policy (OECD, 2001). The report states that “SMEs make up over 95% of OECD enterprises and account for 60-70% of total employment in most [member] countries” (OECD, 2000 p.1). The report further states that the SME contribution to economic and employment growth in OECD countries will increase over the next few years. Employment growth projections in the United States indicate that SMEs will be responsible for 60% of employment growth between 1994 and 2005 (OECD, 2000).

The Australian Bureau of Statistics (ABS, 2000) has estimated that there are 1,112,200 private sector small businesses in Australia. The Small Business Development Corporation of Western Australia has found that SMEs account for 51% of the private sector workforce (SBDC, 1999) and therefore make a substantial contribution to the economy. This factor is not unique to Australia but reflected in many developed and developing economies around the world. In the UK SMEs account for 58% of the workforce and in Italy the percentage is 79%, France 63%, Germany 60% (Industry, 2001). In Singapore the figure is 51% (Nishizawa, 2000) and 72.7% in Japan (SMEA, 2001).
As a consequence of this impact on the economy, Australian SMEs have been strongly encouraged by the Government to embrace the new e-business environment and expand their global reach. (DIST, 1998a). Figure 2.1 below shows that the average annual growth for small business employment in Australia has increased at a rate of 5% per annum (micro business category) and 3.4% per annum (small business category) and 3.2% in the medium business category:

![Average annual growth: Businesses by employer size group](image)

*Figure 2.1 Small Business Employment Growth in Australia (ABS, 1999)*

Figure 2.2 below shows the structure of Australian business in relation to the number of businesses, employment, type and size of business. Of the 1,112,200 business estimated to be in operation, the ABS classified 951,100 as non-agricultural small businesses with a total of 3,119,600 employees.
In the non-agricultural private sector over 951,000 or 96% of all businesses were classified as small businesses, employing over 3.1 million people or over 47% of the total non-agricultural private sector workforce (ABS, 2000a). Therefore, the importance of the SME sector to the nation's economy and employment outlook is intrinsic.
A report by the Department of Employment, Workplace Relations and Small Business (DEWRSB) *Under the microscope – microbusinesses in Australia* (DEWRSB, 1998), stated the importance of micro-business as a category within the SME sector. Micro businesses are seen as the "…seedbed for entrepreneurial talent…[and] are often at the forefront of new industries and…have played a major part in pioneering new markets and technologies" (DEWRSB, 1998, p.6). Micro-businesses are also considered the main source of employment growth in Australia, employing 37 per cent of small-business non-agricultural employees (ISR, 2000 p.41). In addition, micro-businesses contribute $20,193 million to industry gross product, a significant contribution to the Australian economy.

It is of prime importance that Australian SMEs are encouraged to participate in electronic commerce to continue this trend in employment growth and consequent contribution to the Australian economy. Additionally, there is a danger that the SME sector may be disadvantaged if it does not embrace the online world within the next few years. Both Federal and State Governments, for example, are conducting business online in the areas of taxation, employment and Government tenders. Business licencing at the Local, State and Federal level will be available online in the near future from the Business Licensing Information Service (BLIS) website (http://www.business.gov.au).

With government departments and larger organisations moving toward wholly online procurement, SMEs will find themselves cut out of the tendering process if they fail to embrace online business practices. Whilst it is acknowledged that Business-to-business electronic commerce is currently a popular research area,
the focus of this study is on business to consumer electronic commerce and the opportunities for Australian SMEs to capture a share of the Internet retail dollar. SMEs have been shown to be integral to the Australian economy and it is therefore considered vital that every effort is made to identify and implement initiatives that enhance SME access to, and use of, electronic business.

The factors leading to successful business to consumer electronic commerce must be identified and critically examined to assess the factors which may influence the success of business to consumer electronic commerce by SMEs. The next section defines electronic commerce as used in this study and gives an overview of the historical background of SMEs and electronic commerce. Opportunities and barriers to the uptake of electronic commerce are also identified and discussed. It should be noted that electronic commerce and electronic business are used interchangeably in this study.

2.3 Definitions of Electronic Commerce
Definitions of electronic commerce are quite diverse, and differ substantially in content and focus. The definitions of electronic commerce range from the very simple and straightforward concept found in the Small Business Index (1998), "the use of the Internet to buy and sell products", to the far more complex definition offered by the Monash Centre for Electronic Commerce, "the process of conducting all forms of business activity between entities using appropriate electronic methodologies and procedures in order to achieve the organisation’s objectives" (Centre, 1996, p.1).
It is unlikely that SMEs themselves have any clear definition of what constitutes electronic commerce. It may be assumed that their e-commerce knowledge is gained through media sources or word of mouth advice that may be misrepresentative.

The Australian National Office for the Information Economy (NOIE) offers the following clear and comprehensive definition of electronic commerce:

Electronic commerce, or e-commerce, is the use of computers and electronic communications networks to do business. This covers a wide range of activities, from using electronic mail (email) and EFTPOS, through to Internet based sales and transactions and web based marketing. (NOIE, 2001).

For this study the above definition appears appropriate as it fully encompasses the concept of electronic commerce. This study found it appropriate to not merely focus on electronic commerce definitions, but to also focus on what use SMEs made of the Internet and electronic commerce. An examination of recent studies found that the most utilised activities were email and research and the least utilised activity was online transactions with the exception of Internet banking (see Table 2.4 below).
<table>
<thead>
<tr>
<th>ISBR classification of SME Internet use in descending order of importance:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• e-mail</td>
</tr>
<tr>
<td>• accessing information</td>
</tr>
<tr>
<td>• promotion/business website</td>
</tr>
<tr>
<td>• electronic banking</td>
</tr>
<tr>
<td>• purchasing placing orders</td>
</tr>
<tr>
<td>• receiving orders</td>
</tr>
<tr>
<td>(ISBR, 1998, p.32)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Small Business Index 2001 classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Research/looking for information</td>
</tr>
<tr>
<td>• Access/exchange information</td>
</tr>
<tr>
<td>• e-mail</td>
</tr>
<tr>
<td>• advertise/promote products</td>
</tr>
<tr>
<td>• another form of communication</td>
</tr>
<tr>
<td>• International market contact</td>
</tr>
<tr>
<td>• Look at products/services</td>
</tr>
<tr>
<td>• Locate new clients/tenders</td>
</tr>
<tr>
<td>• Buying/selling/bookings</td>
</tr>
<tr>
<td>• Fun/browsing</td>
</tr>
<tr>
<td>(SBI, 2001)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Department of Communications, Industry and Technology classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• email</td>
</tr>
<tr>
<td>• business research</td>
</tr>
<tr>
<td>• entertainment</td>
</tr>
<tr>
<td>• academic research</td>
</tr>
<tr>
<td>• news/reference</td>
</tr>
<tr>
<td>• software downloads</td>
</tr>
<tr>
<td>• education</td>
</tr>
<tr>
<td>• chat</td>
</tr>
<tr>
<td>• experimenting</td>
</tr>
<tr>
<td>• hobbies/other</td>
</tr>
<tr>
<td>• hobbies/sport</td>
</tr>
<tr>
<td>• shopping/financial transactions</td>
</tr>
<tr>
<td>• discussion groups</td>
</tr>
<tr>
<td>(DCITA, 2000)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poon and Swatman's classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• email communication</td>
</tr>
<tr>
<td>• webpage marketing and advertising</td>
</tr>
<tr>
<td>• e-transactions (tour bookings, email auction)</td>
</tr>
<tr>
<td>• file transfer or document exchange (incl. business partners, customers)</td>
</tr>
<tr>
<td>• information gathering/research (incl. Usenet and Mailing lists)</td>
</tr>
<tr>
<td>• seek business opportunities</td>
</tr>
<tr>
<td>• software upgrades</td>
</tr>
<tr>
<td>• project coordination (HR Company)</td>
</tr>
<tr>
<td>• improve business relationship by interacting with potential customer</td>
</tr>
<tr>
<td>(Poon &amp; Swatman, 1997)</td>
</tr>
</tbody>
</table>

All of the above research can be classified into four main categories:

*communication, research, promotion and electronic transactions.* These four
categories identify what use SMEs make of the Internet and electronic commerce. Based on these four categories, a taxonomy of electronic commerce activities was identified that examined the four main classifications of SME use of the Internet (see Table 2.5).

<table>
<thead>
<tr>
<th>Communication</th>
<th>Research</th>
<th>Promotion</th>
<th>E-transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>email (incl. national &amp; international)</td>
<td>information seeking</td>
<td>advertising</td>
<td>purchasing/placing/receiving orders</td>
</tr>
<tr>
<td>exchange information, files and documents</td>
<td>seek business opportunities</td>
<td>marketing</td>
<td>electronic banking</td>
</tr>
<tr>
<td>(with business partners/customers)</td>
<td></td>
<td></td>
<td>software downloads</td>
</tr>
<tr>
<td>usenet/mailing lists</td>
<td>tender information</td>
<td>improve business relationships</td>
<td>buying, selling, bookings via email, fax or credit card</td>
</tr>
</tbody>
</table>

The above taxonomy was used in this study to develop an Electronic Commerce Website Activity Model (ECWAM) that was applied to the websites of the SMEs included in this study to identify and analyse their electronic commerce activities and use of their websites.

The activities are divided into the four categories derived from the taxonomy:

**Communication** - website has any or all of the following communication options:
- email
- feedback form
- mailing list for product updates
- usenet list
- contact numbers
- bricks and mortar address

**Research** – SME uses the website for research purposes by:
- information seeking
- seeking business opportunities
- seeking or requesting tender information
3. Promotion – website has any or all of the following promotion options:

- advertising/marketing products and/or services
- samples (available either electronically or available in-store)
- promotional sales
- promotional competitions
- online brochure
- online catalogue

4. Electronic Transactions – website capable of some form of electronic transactions:

- Secure Electronic Transactions (SET) – shopping cart option, credit card enabled
- electronic banking
- email order form – credit card enabled electronically/via telephone
- facsimile order form – credit card enabled electronically/via fax order form or cheque posted to SME
- telephone orders

Based on the above four activity areas the following model has been developed in order to present SME electronic commerce activities. The Electronic Commerce Website Activity Model (ECWAM) presented in table 2.6 below, is designed as a matrix with the far left column signifying each SME in the study and the following four columns the activities undertaken by each SME.
The ECWAM model was developed firstly to identify suitable SMEs for the study (SMEs with websites capable of electronic transactions) and secondly to gauge actual use of the websites as opposed to intended or planned use of the sites.

The next section discusses the historical background of SMEs and electronic commerce. A historical overview of the relationship between SMEs and earlier forms of electronic commerce is useful to place the issues in context and to gain an understanding of the reasons why many Australian SMEs are still reluctant to initiate or adopt electronic commerce practices.

### 2.3.1 Small and Medium Enterprises (SMEs) and Electronic Commerce - Historical Background

The relationship between Small and Medium Enterprises (SMEs) and electronic commerce has been examined by a number of researchers and the findings suggest that many SMEs have been, and still are, reluctant to adopt electronic commerce principles and practices in their day to day business transactions. (Beer, 1999; DIST, 1998a; Hoffman *et al.*, 1995; Shern, 1998; SBI, 1998; Yen, 1998).
This reluctance has been traced to the early forms of electronic commerce, principally Electronic Data Interchange (EDI). EDI transactions were not particularly suited to the SME environment as they were expensive and involved the use of proprietary software which was incompatible with systems used by business partners (DIST, 1998a; Iacovou, Benbasat, & Dexter, 1995; Rose et al., 1999; Turban, McLean, & Wetherbe, 1999). SMEs adopted EDI software in a reactive fashion as larger organisations tended to have stronger financial infrastructures, many customers and the ability to partner with other suppliers. The SMEs who did embrace this technology often felt "locked into" a system that did not provide them with any real economic benefit (DIST, 1998a; Iacovou et al., 1995).

Another barrier preventing the early uptake of e-commerce by the SME sector was the size and scope of small and medium enterprises. The majority of SMEs do not employ Information Technology Managers or specialists. The lack of Information Technology staff within the SME sector has been identified as one obstacle for the wholesale adoption of Information Technology, including e-commerce strategies, (Cragg & King, 1993; Thong et al., 1996; Yap et al., 1992). In the SME sector, Information Technology decisions and operational factors tend to be relegated to the realm of the Accountant, Manager or Owner-Operator and viewed as a peripheral business factor (DIST, 1998a; Prakash, 1998; Shern, 1998).

Many SMEs do not engage in strategic planning for their business. Small businesses, in particular, tend to focus on day-to-day survival, including dealing
with immediate issues that may impact on their business, such as profits, taxation and other areas of compliance (Centre, 1996; DIST, 1998a). This focus inhibits general business planning and would also inhibit developing electronic commerce policies and practices.

According to a report by the Institute of Small Business Research, SMEs have been cautious in their uptake of electronic commerce as it is seen as complex and not perceived as relevant to their organisation (ISBR, 1998). A more recent report by the Department of Communications, Information Technology and the Arts (2000) found that Australian SMEs still remain hesitant in their approach to and adoption of electronic commerce principles and practices. They found that SMEs suffer a mixture of "interia, apprehension, fear and a degree of risk aversion" (DCITA, 2000, p.33) when considering electronic commerce.

Despite these barriers, research has found that access to, and use of, the Internet by SMEs has increased over the last few years. The ABS (ABS, 2000b), found that the percentage of small business connected to the Internet increased from a low of 5% in 1995 to 49% in 2000. In addition, 9% of micro businesses and 24% of small businesses had a web page in 2000 (ABS, 2000b). In medium businesses, 83% had access to the Internet and 46% had a web page in 2000 (ABS, 2000b). The percentage of businesses accessing the Internet and having a web page was related to business size, the smaller the business the less likely they were to have Internet access, a website or engage in electronic commerce activities. (ABS, 2000b).
The ABS survey also explored Information Technology, computer, Internet and website use by specific industries by industry size (illustrated in figure 2.3 below).
<table>
<thead>
<tr>
<th>Employment size</th>
<th>IT staff '000</th>
<th>Computers %</th>
<th>Internet access %</th>
<th>Website %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 persons</td>
<td>415</td>
<td>13</td>
<td>69</td>
<td>50</td>
</tr>
<tr>
<td>5-19 persons</td>
<td>184</td>
<td>22</td>
<td>85</td>
<td>65</td>
</tr>
<tr>
<td>20-99 persons</td>
<td>36</td>
<td>38</td>
<td>97</td>
<td>83</td>
</tr>
<tr>
<td>100 or more persons</td>
<td>6</td>
<td>68</td>
<td>100</td>
<td>95</td>
</tr>
</tbody>
</table>

*Figure 2.3 Australian businesses using I.T. (ABS, 2000b p.2)*

The ABS survey found that the industry sector with the highest percentage of websites were in the electricity, gas and water supply industries, where 56% had websites. The next highest was the mining industry with 30% having websites. The lowest industry sectors were the service industries, construction, accommodation, cafes, restaurants and the retail trade sector (see Figure 2.4 below). Traditionally (with the exception of construction) these sectors are in the small to medium enterprise category (ABS, 2000b).
<table>
<thead>
<tr>
<th>Industry</th>
<th>IT staff '000</th>
<th>IT staff %</th>
<th>Computers %</th>
<th>Internet access %</th>
<th>Web site %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>2</td>
<td>19</td>
<td>82</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>54</td>
<td>20</td>
<td>79</td>
<td>60</td>
<td>23</td>
</tr>
<tr>
<td>Electricity, gas &amp; water supplies</td>
<td>-</td>
<td>46</td>
<td>85</td>
<td>79</td>
<td>56</td>
</tr>
<tr>
<td>Construction</td>
<td>90</td>
<td>10</td>
<td>68</td>
<td>46</td>
<td>6</td>
</tr>
<tr>
<td>Wholesale</td>
<td>45</td>
<td>21</td>
<td>83</td>
<td>62</td>
<td>22</td>
</tr>
<tr>
<td>Retail</td>
<td>112</td>
<td>12</td>
<td>68</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>Accommodation</td>
<td>32</td>
<td>12</td>
<td>61</td>
<td>40</td>
<td>19</td>
</tr>
<tr>
<td>cafes &amp; restaurants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>32</td>
<td>13</td>
<td>64</td>
<td>46</td>
<td>14</td>
</tr>
<tr>
<td>Communication</td>
<td>4</td>
<td>17</td>
<td>77</td>
<td>42</td>
<td>17</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>23</td>
<td>18</td>
<td>81</td>
<td>71</td>
<td>19</td>
</tr>
<tr>
<td>Property</td>
<td>149</td>
<td>29</td>
<td>88</td>
<td>76</td>
<td>19</td>
</tr>
<tr>
<td>Health</td>
<td>51</td>
<td>14</td>
<td>83</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>Recreation</td>
<td>17</td>
<td>15</td>
<td>81</td>
<td>63</td>
<td>26</td>
</tr>
<tr>
<td>Personal &amp; other</td>
<td>30</td>
<td>10</td>
<td>60</td>
<td>39</td>
<td>19</td>
</tr>
</tbody>
</table>

The Small Business Index (2001) stated that SMEs have not yet fully established the connection between use of the Internet and transacting business on the Internet. This confirmed a recent ABS survey, when it was found that only 6% of SMEs surveyed used the Internet to actually buy or sell products (ABS, 2000b). Of all Australian online businesses, 14% offered online ordering yet only 3% used shopping cart technology and only 5% offered online payment facilities (ABS, 2000b).
The above statistics suggest that SMEs using the Internet are e-commerce ready and in need of further information and assistance to make the transition to online trading. With further research on business to consumer electronic commerce opportunities, barriers and strategies, SMEs may gain the necessary knowledge to make the leap from electronic commerce readiness to electronic commerce enabled.

The next section identifies and discusses the opportunities and barriers that SMEs face and must understand prior to making decisions involving electronic commerce uptake. Robert Gottliebsen stated in the foreword to the Department of Communications, Industry and Science report *Taking the Plunge 2000: Sink or Swim* that smaller and medium sized business have not appreciated the implications of the changes taking place around them (DCITA, 2000, p.5). This lack of appreciation is most apparent in the perceived barriers to electronic commerce uptake by SMEs identified below.

### 2.4 Opportunities and barriers for SMEs and Electronic Commerce – overview

Opportunities for SMEs and electronic commerce fall into a number of categories including business to business, business to government and business to consumer electronic commerce. Barriers identified to hinder SMEs electronic commerce uptake include technological impediments, behavioural and psychological aspects, management and regulatory issues.
2.4.1 World trends in Internet retailing

In the United States, access to the Internet has increased from 90,000 users in 1993 to 136.86 million in 2000 (USIC, 2000). In Australia the figure is estimated as 5.5 million users (OIC, 2000). Worldwide the figure is estimated as 304 million users as at March 2000 and expected to increase to 1 billion users by 2005 (USIC, 2000). In 2000, Australians purchased more than $AUD 4.4 billion online (Nicholas, 2001). It is estimated that 64% of online purchases were for goods and services obtained overseas (Twomey, 1999). In the United States in 2000, online purchases worth $US25.8 billion were made by consumers via the Internet (USDC, 2001) The majority of those purchases were made within the United States. Although there is a significant disparity in population size between Australia and the United States, it is clear that Australian business is not gaining a significant slice of the online marketplace from both Australia and overseas.

The predicted trend in world wide electronic commerce spending indicates that the US will lose some of its share of the online market, with a strong shift towards Europe and Japan who are gaining more of the online marketplace. This is illustrated in Figure 2.5. The Asia/Pacific region (including Australia) was included in 'Rest of World' (ROW) sector in 1999, and represented 3.8% of e-commerce spending. The projected growth for 2003 indicates that the Asia/Pacific region, including Australia, will only gain a 4.2% share of the online retailing market.
The above data indicates that Australia needs to become more pro-active in its recognition and pursuit of electronic commerce opportunities, particularly in the Small and Medium Enterprise sector.

The Internet is also being used for banking purposes by Australian SMEs. Although there is no publicly available data on Internet banking usage by SMES in Australia, the Australian Bureau of Statistics did estimate in the three months to December 2000, that more than one third or 36% of all Australian businesses had used the Internet for paying bills or transferring funds (ABS, 2000b). The use of the Internet for online banking includes funds transfer, salary payment, bill payment and statement checking (DCITA, 2000).
2.4.2 Electronic commerce opportunities

The literature on opportunities for SMEs and electronic commerce is still evolving. Electronic commerce is still considered a relatively new area of research and few models or frameworks have been developed or refined to assist the researcher in understanding this phenomenon.

Opportunities for SMEs and electronic commerce may be classified in the following three areas, business to business electronic commerce, business to government electronic commerce and business to consumer electronic commerce:

Business to business electronic commerce


The National Office of the Information Economy (NOIE, 2000) in Australia has confirmed that business-to-business electronic commerce activity is greater than business-to-consumer or business-to-government electronic commerce. NOIE found no reliable figures giving an exact breakdown of business-to-business compared to business-to-consumer electronic commerce. However, it was found that of total electronic commerce activity business-to-business electronic commerce shows dominance over both business-to-consumer and business-to-government electronic commerce.
Business-to-business electronic commerce is a growth area for all Australian businesses (see figure 2.6 above). SMEs can take advantage of this form of electronic business by forming virtual alliances and online trading partners (Kurbel & Teuteberg, 1998).

**Business to Government electronic commerce**

Several Australian State and Federal Government departments are conducting online business with companies, which may have a significant impact on the SME sector. The Department of Industry and Technology (DIT) manages government tenders, the Government Electronic Market (GEM) and the Government Contracting Information Bulletin Board. DIT currently have tender information available online, including advance notice of forthcoming tenders not available in hard copy, which disadvantages smaller business not yet online (DIT, 2002).
The Australian Taxation Office (ATO) in conjunction with the Australian Securities and Investments Commission (ASIC) trialed a new initiative for companies, the eREGISTERs system, (http://www.ato.gov.au). This initiative invited interested companies to “…participate in its eREGISTERs trial in which company officers will be able to lodge their company annual return, view their company information, change their address details and make associated electronic payments via the Internet” [Australian Taxation Office, 1999 #118]. Other Australian Commonwealth Government initiatives that allow business to deal directly with Government via the Internet include:

Lodge A Job - a free service for employers to advertise their vacancies on the Australian Job Search site which provides on line employment services and information for employers and job seekers.

Commonwealth Government's Endorsed Supplier Arrangement - a system for companies in the industries of IT & T, Major Office Machines, Auctioneering Services, Commercial Office Furniture to apply for endorsement or update company details.

Commonwealth Government Information Technology and Communications contracting framework version three (GITC3) - allows buyers and suppliers to contract electronically in relation to Information Technology and Telecommunications (IT & T) products and services (BEP, 1999).

The Department of Communications, Information Technology and the Arts intends to offer all Federal Government Services online from 2001 and is implementing a Commonwealth Electronic Procurement Implementation Strategy whereby the
Federal Government intended to pay all its suppliers electronically by the end of
2000. (DCITA, 1999). By mid 2000 96% of all Commonwealth government
agencies paid at least some of their suppliers electronically (see Figure 2.7
below). This Government strategy will have a huge impact on SMEs, as their
ability to remain suppliers to Government will be intrinsically linked with their
ability to purchase/upgrade the required technology, pay for an Internet
connection and any required software.

The current and future direction in business to Government electronic commerce
will have a wide-reaching effect on the SME sector. Although Government
acknowledges commitment to SMEs (DIST, 1998a), there is no indication within
Government policies and strategies as to how SMEs will be assisted in meeting
the challenges of business to Government electronic commerce.
Business to Consumer

Business to Consumer electronic commerce includes online retailing direct from business to consumer, advertising, marketing, and static web presence (Centre, 1996; Hoffman et al., 1995; McCombie, 1999; Ng et al., 1998; Poon & SWATMAN, 1997; Prakash, 1998; Shern, 1998).

The focus of this study is on business to consumer electronic commerce and the opportunities for Australian SMEs to capture a share of the Internet retail dollar. One opportunity for business to consumer electronic commerce is to compete in the global marketspace. The term “marketspace” was coined by Rayport and Sviokla in 1994 (Rayport & Sviokla, 1994). The marketspace concept was developed to provide a framework for businesses, regardless of size competing internationally via the World Wide Web. The concept of the marketspace was of a virtual marketplace whereby sellers and buyers could negotiate the trade of goods and services in an online environment.

Researchers using this conceptualisation of an international marketspace have produced a framework for analysing market competitiveness (Christiaanse & Zimmerman, 1998). It has been found that marketspace competitiveness appears to be effective in the United States and parts of Europe, but that Australian business lags well behind in its attempts to capture an International online market.

In Australia, business to consumer electronic commerce is slowly growing, but may be losing marketshare to bigger and well established American enterprises.
For example, the ABS in its 2001 report *Use of the Internet by Householders, Australia 8147.0*, stated that 10% of Australian adults purchased goods and services over the Internet in the 12 months to November 2000 (ABS, 2001). It has also been estimated that 64% of online purchases made by Australian consumers go to overseas Internet retailers, primarily to the United States (Twomey, 1999).

Figure 2.8 illustrates how much of the Internet retail dollar is being lost to the Australian business community:

Penetration of the global marketspace by Australian SMES will be affected if the above percentages are not increased in Australia's favour. In the United States, for example, it is estimated that the majority of money spent by consumers via Internet retailing is spent on products and services within the US (USIC, 2000). In Western Europe, electronic commerce spending totalled $US12.2 billion in 2001 with the majority of online consumers purchasing nationally rather than internationally and is expected to surpass $1 trillion by 2003 (O'Boyle Kelly & Asmussen, 2001).
Opportunities for Australian SMEs to engage in electronic commerce initiatives are available and ready to be exploited. Media exposure has provided awareness for SMEs of such opportunities (DCITA, 2000). Concomitantly the media has also created an additional barrier for SME adoption of electronic commerce initiatives with saturation coverage of dot com crashes during 2001. It has also been suggested that Australian SMEs are deliberately ignoring electronic commerce opportunities and alienating whole market segments. One such segment is the high income earning bracket who represent 22 per cent of the Australian population and have 47 per cent of discretionary spending power (DCITA, 2000, p.5). It is estimated that 80 per cent of higher income earners are connected to the Internet and it will seriously disadvantage SMEs to ignore this market sector.

It is the purpose of this study to identify methods for SMEs to harness electronic commerce opportunities, whilst at the same time, minimising the impact of perceived and real barriers to electronic commerce adoption. The next section discusses the barriers, both real and perceived, faced by SMEs considering electronic commerce uptake. The next section identifies and discusses the barriers to electronic commerce uptake by Australian SMEs.

2.4.3 Barriers to SME uptake of business to consumer electronic commerce

Many extant researchers have identified barriers to SME uptake of electronic commerce (Beer, 1999; Borenstein, 1998; DIST, 1998a; Hoffman et al., 1995; ISBR, 1998; Ng et al., 1998; OIC, 2000; Prakash, 1998; Rose et al., 1999; Shern, 1998; Yen, 1998). Barriers identified include: security issues, bandwidth and

Figure 2.9 highlights concerns held by Australian SMEs to electronic commerce uptake.

### Concerns About E-Commerce

![Chart](chart.png)

Based on an analysis of the above research, it was found that barriers to business to consumer electronic commerce fall into four distinct categories *technological barriers, legal/regulatory barriers, management barriers and psychological barriers*: 

---

56
i. Technological barriers (DIST, 1998a; Rose et al., 1999; Srivihok, Ho, & Burstein, 2000) including:

Bandwidth difficulties:

Bandwidth is defined as the measurement of throughput capacity of a given communications network link or transmission protocol (Cisco, 1999). In relation to digital transmission of data, the amount of bandwidth between sender and recipient determines how much data can be transmitted per unit of time. It is measured in bits per second (bps) or Kbps, Mbps (Beekman & E.J., 2000). A typical standard modem for example, may transmit in the range of 28.8 Kbps through to 56 Kbps.

There are two modern standards for bandwidth. These are referred to as synchronous optical network (SONET), largely used in the United States, and synchronous digital hierarchy (SDH), mostly used in Europe, Australia and international networks (DOCITA, 2000, p.237). A synchronous optical mode of transmission (such as that used the U.S.), means that the laser signals flowing through an optical fibre system have been synchronised to an external clock. This gives the U.S. an advantage over Europe and Australia as optical data signals transmit voice, data, and images through the fibre system in a regulated manner so that each stream of light can readily be identified and easily extracted for delivery or routing. The differences between United States, European and Australian bandwidth transmission is presented in figure 2.10.
The availability of fast, high quality and appropriately priced communications bandwidth is considered a significant barrier to the adoption of electronic commerce activities by Australian business. This bandwidth problem affects website design factors. For example, video and audio files take longer to download. Java, a programming language used by many web site developers that can be run on any platform or operating system (Beekman & E.J., 2000, p.111), does not work with older versions of browsers including earlier releases of Netscape and Internet Explorer nor does it work with other browsers including...
Lynx (a text based browser) and Opera. It has been estimated that up to 40% of Internet users cannot access Java enabled web sites (Clark, 2001).

In the early stages of the Internet, a SME with basic technological skills could have designed a website for advertising purposes, email and email or fax ordering. A website could be built using a simple text editor or a word processor that had the ability to save documents as html files (see figure 2.11).

```html
<html>
<head>
<title>Electronic Commerce Website</title>
</head>
<body bgcolor="blue">
<h1><center>Electronic Commerce Website</h1><br>
<br>
<p align=right><a href="mailto:s.bode@ecu.edu.au">
<font color=red><font size=4>to request a catalogue please email</a>
<img src="mail1.gif" align=center>
</body>
</html>

Figure 2.11 Basic HTML code adapted from (Lycos, 2002)

Over the past few years, Internet technology and electronic commerce applications have reached a level of sophistication that require the skills of a highly trained computer programmer to manage the current design requirements. Java script and Java applets require a level of technological skill that would be unlikely to be found in a SME - excluding SMEs that are technology based enterprises. Further, SMEs would need a high level of relational database management skills in order to design and implement catalogue, ordering, pricing and shopping cart technology (O'Leary & O'Leary, 1999).

Therefore, due to the complex nature of website design, SMEs would need to use external expertise to implement and manage their websites. Off-the-shelf
products are a cheap and easy alternative to external expertise, but they tend to be template based and there is a danger that an SME will end up with a website that is exactly the same as one of their competitors. (Tasker, 2001).

Security issues:

Internet information security is a critical requirement to the widespread adoption of electronic commerce by Australian SMEs and is considered a significant barrier to uptake. (Freehill, 2000; Rose et al., 1999). According to Australian Security Standards AS/NZS 4444 (1996, p.7) information security is the:

Protection of information for:

Confidentiality – protecting sensitive information from unauthorized disclosure or intelligible interception.

Integrity – safeguarding the accuracy and completeness of information and computer software.

Availability – ensuring that information and vital services are available to users when required (ANZUS, 2000, p.7)

Users of the Internet remain uncertain about the security of using and transacting on the Internet. Particular concerns that have been identified include:

security of sensitive personal information disclosed over the Internet;

uncertainties about how personally identifiable information may be used or disclosed to third parties;
concern about receiving unsolicited advertising material, spamming and hackers or other intruders interfering with websites (Freehill, 2000, p.2).

The American Federal Trade Commission stated that "the proliferation of readily available personal information...also could jeopardise privacy and facilitate fraud and deception. These risks make consumers reluctant to use the Internet or participate in online transactions and therefore could prevent consumers from obtaining the benefits promised by online commerce" (Federal, 2000, p.28).

The report also found that of 324 American businesses surveyed all collected personal, identifying information from consumers. 52% of the businesses were willing to pass this information to third parties as outlined in Figure 2.12 below:

<table>
<thead>
<tr>
<th>Say Do or May Disclose Personal Identifying Information to Third Parties:</th>
<th>Percent</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>52%</td>
<td>168/324</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.12 Disclosure of personal identifying information (Federal, 2000, p.200)

This is a disturbing trend as third parties may then re-sell the information to other vendors or marketers. In Australia privacy legislation is still in a developing phase the new Privacy Amendment (Private Sector) Act 2000, was passed into law in December 2001. This new legislation includes several National Privacy Principles (NPP). NPP Number 4.1 states "that an organisation must take reasonable steps
to protect the personal information it holds from misuse and loss and from unauthorised access, modification or disclosure” (Privacy Commission, 2001).

This new legislation will have a significant impact on SMEs engaging in electronic commerce, as it will be illegal to sell information to third party vendors. To ensure privacy and security and compliance with NPP 4.1 a business must develop a security policy. The development of a security policy by a business will need to cover all organisational systems used for processing, storing or transmitting personal information (Privacy, 2001) including transactions conducted over the Internet or using electronic commerce tools and technologies.

ii. Legal/Regulatory barriers (Adam, 1997; Axe, 2000; Yen, 1998):

Domain name registrations:

In Australia, generic naming conventions are forbidden (http://www.inww.com.au). Therefore it is not possible to register domains such as house.com.au or gifts.com.au. Generic naming is the norm in the United States and has allowed business to thrive. The inability to use generic domain names hampers Australian SMEs as they are unable to choose intuitive web site names, one factor considered important to electronic commerce success (BCG, 2000; Rose et al., 1999).
Australian Internet censorship laws -

The Broadcasting Services Amendment (Online Services) Act 1999 made Internet Service Providers (ISP) responsible for monitoring client web sites to ensure that consumers were not accessing illegal websites including pornography, violent and terrorist sites (http://scaleplus.law.gov.au/). This legislation is widely considered unwieldy and likely to interfere with electronic commerce initiatives:

Australia's new Internet censorship legislation is among the world's most draconian and should be repealed before it does further damage to the country's reputation and e-commerce industry, the president (Professor Strossen) of the American Civil Liberties Union warned (Hodge, 1999 p. 38).

and:

The Broadcasting Services (Online Services) Bill simply won't work...it will add enormous costs to Internet service providers, create congestion and bottlenecks on the web, set back the development of the information economy, and reduce our personal freedoms (Day, 1999 p.17).

Contract Laws including 'breach of contract' are difficult to implement as legislation differs from country to country (Yen, 1998).

iii. Management barriers (Harrison et al., 1997; Iacovou et al., 1995; Lawrence & Chau, 1998; Thong et al., 1996; van Akkeren & Cavaye, 1999; Yap et al., 1992):
Lack of CEO/Management support

Research has found that a serious barrier to Information Systems success relies on the level of support at the CEO level (DeLone, 1988; DeLone & R, 1992; Gable, 1989b; Greenwood, 1981; Harrison et al., 1997; Thong et al., 1996; Yap et al., 1992). Without CEO/Management support it has been found that IS implementation have either failed or success has been limited (Harrison et al 1997).

DeLone (1988) surveyed 93 small and medium manufacturing firms to gauge successful IS implementation from the perspective of the CEO and IS usage data. The survey included questions related to CEO involvement, usage of the IS system and external expertise. The study found that the single most critical factor in IS implementation success was the involvement of the chief executive. They conclude that without top management support IS implementation would fail, regardless of other issues including external expertise.

Thong and Yap (1996) surveyed 114 small businesses and their findings indicate that top management support is one factor in information systems implementation success. They found that in small businesses the CEO or top manager is often synonymous with the owner/operator of the business and primarily responsible for virtually all decision making within the business. Thong and Yap's (1996) findings act as a qualifier in the importance of top management support to IS success rates. Their research indicates that top management support is not necessarily the primary factor in IS implementation success. Thong and Yap (1996) suggest that issues including external expertise and effectiveness must be considered in
conjunction with management support. Particularly in the small to medium business environment where it has been found that external expertise is more likely to be involved than in the large business sector (Thong and Yap, 1996).

Lack of internal IS/IT expertise

It has been found that the majority of SMEs do not have the internal expertise to enable the in-house development of Information Systems (IS), including electronic commerce (Brown et al., n.d.; DIST, 1998b; Gable, 1989a, 1991; Hunter, Diochon, Pugsley, & Wright, 2002; Kole, 1983; Yap et al., 1992). This issue is discussed in greater detail in the section on "SMEs and Consultant Engagement" below.

Limited financial resources

Many SMEs lack the financial resources to implement electronic commerce and often seek external assistance to facilitate cost-effective implementation of electronic commerce infrastructure (DIST, 1998b; Gable, 1989; Gable, 1991; Kole, 1983; Yap, 1992).

Lack of strategic planning/thinking

It has been found that the majority of SMEs, particularly at the smaller end of the scale do not have the resources or ability to conduct appropriate business planning (Kotey & Harker, 1998).
iv. **Psychological barriers** (Borenstein, 1998; Freehill, 2000; IMRG, 1998; Lin, 1998; Ng et al., 1998)

Fear of technology

The majority of SME owner/operators tend to fall in the 40-65 year old category, an age-group that has a low exposure to computers and Internet technology and a consequent fear of technology (Borenstein, 1998; IMRG, 1998).

Lack of trust in technology

Fear of technology can lead to a lack of trust in technology and SME owner/operators, particularly in the mid age range as identified above, are reluctant to move from traditional paper based work methods toward electronic technology (Borenstein, 1998; IMRG, 1998).

Perception and expectations of what technology can achieve

Many SMEs have either unrealistically high expectations or a perception that technology is too complex or not relevant (ISBR, 1998).

SME perceptions of technology tend to fall into three categories *Cynicism, Naivete and Frustration* (O'Leary & O'Leary, 1999 p.292-293) illustrated in Table 2.7 below:
Table 2.7 Technology & People (O'Leary & O'Leary, 1999 p.292)

<table>
<thead>
<tr>
<th>Cynicism:</th>
<th>Naivete:</th>
<th>Frustration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cynics feel that new technology is overrated and too troublesome to learn...</td>
<td>Naïve people may be unfamiliar or quite familiar with computers. Unfamiliar ones tend to think of computers as magic boxes. Those familiar with technology underestimate the time and difficulty of using technology...</td>
<td>Frustrated users are impatient and irritated about taking time to learn new technology... they have too much to do... and find manuals difficult to understand.</td>
</tr>
</tbody>
</table>

Current research has found that barriers to SME adoption of electronic commerce practices are difficult to overcome. Some SMEs remain apathetic to the opportunities presented by electronic commerce, whilst others see no clear incentives for adopting electronic commerce initiatives. It has been suggested that up to 20% of SMEs will fail if they do not adopt electronic commerce practices and integrate these practices into their business strategies and planning processes (DCITA, 2000, p.5).

As SMEs are integral to the Australian economy and employment growth a 20% failure rate would have a serious negative impact on the fiscal health of the nation. This 20% failure rate is in addition to the current 8% of all small businesses and 5% of medium businesses that fail (Bickerdyke, Lattimore, & Madge, 2000). The impact on employment rates of business failure based on the current failure rates causes up to 160,000 employees per annum to lose their jobs (Bickerdyke et al., 2000 p.38). When multiplied by a possible additional 20% SME business failures, unemployment rates could increase exponentially. An outcome that would have a detrimental effect on the Australian economy.
This study seeks to address how Australian SMEs can maintain and enhance both profitability and efficiency by successfully adopting and engaging in electronic commerce practices. Having examined opportunities and barriers to SMEs and electronic commerce, with a particular focus on business to consumer electronic commerce, the next section of this chapter discusses consultant engagement theory and practice, Internet strategies and strategic alignment theory. Gaps in the literature are identified and arguments developed that culminate in the research framework used to guide this study.

2.5 Definition of Website Design Consultants

Consultants are expected to provide services, for a fee, to assist businesses achieve a particular goal. Website design consultants could be expected to offer services including, strategic management, project planning and website design. Thong and Yap ([1996, #177] state “consultancy services [in information systems] can include performing information requirements analysis, recommending suitable computer hardware and software, and managing implementation of the information systems” (p.251), in this case the information system would be the website development commissioned by the SME.

It is estimated that by 2005 the global Internet consultancy market will be worth $US50 billion (Evamy, 1999). Arthur Andersen estimates the ebusiness consultancy market in the Asia-Pacific region will be worth more than $US8 billion by 2002 (Andersen, 2000). Website design consultancy is a rapidly growing and high profit generating industry sector. It is difficult to define these particular consultants as virtually anyone with an IT diploma and a minor in graphic art can
register a business, hang out the shingle and hope to generate large amounts of money.

Common claims made by Website Design Consultants on their web pages include:

"We offer complete Internet solutions for Western Australian business. PerthWeb's dedicated staff possess the knowledge and experience to assist your business achieve its online goals now matter how big or small." (http://www.perthweb.com.au/index.html).

"We deliver solutions that generate bottom line results by focussing on traditional business objectives. Our teams include experts in marketing, sales and all relevant technical domains." (http://www.iconworks.com.au);

"I.T.Mechanics endeavours to provide 'best practice' solutions to our clients in an ever changing technological world...Using proven methodologies, we aim to build cohesive, flexible systems that provide the maximum benefit for our clients. We understand that systems development is more than building what you ask for, it is determining what you really need, providing options, advice and long term support." (http://www.webmaster.com.au); and

"We don't just manage change we lead change. APL Digital was the first interactive agency in Australia to realise the significance of a thorough, unified strategic approach to internet development and set up a dedicated Strategy division." (http://www.apldigital.com.au/Services/).

Other common terms for Website Design Consultants include, 'Website Developer', 'Internet Developer' and 'Web Page Designer' (Cormier, 1999; Falkenstine, 1996). Regardless of nomenclature, the definition of a Website Design Consultant for the purposes of this study was determined to be a
consultant who claimed to offer a complete solution for the SME venture into business to consumer electronic commerce. In this study the consultants suggested they could offer the case SMEs e-business strategic management, website design, hosting and marketing advice.

2.5.1 Consultant Engagement

Consultant engagement falls within the broader definition of outsourcing, an activity engaged in by all levels of business when internal resources are either unavailable or inadequate for the required project. Outsourcing of business activities including website development may be defined as:

A long-term, results-oriented relationship with an external service provider for activities traditionally performed within the company. Outsourcing usually applies to a complete business process. (Corbett, 2001).

A Dun and Bradstreet report has found that globally, the outsourcing market has virtually doubled in size since 1999 (Ozanne, 2000). The trend is strongest in the United States, Western Europe and in Asia as shown in Figure 2.13 below:
The outsourcing situation in Australia has been found to virtually mirror the boom in North America, with Australians outsourcing Information Technology, financial support functions and sales and marketing support (Ozanne, 2000, p.4) as shown in Figure 2.14 below:

Consultant engagement, as a sub-field within the outsourcing literature, has been examined in a variety of disciplines including Management, Marketing, Information
System and from the perspective of the practitioner. Researchers in the above disciplines have attempted to identify the critical factors leading to consultant engagement success and to devise models to measure engagement success.

A number of important factors have been identified in the literature that impact on consultant engagement success including service quality & client expectations (Kumar, Simon, & Kimberley, 1999; Murphy, 1999; Parasuraman, Zeithaml, & Berry, 1988; Rouhani, 1998). Consultant experience or expertise (Gable, 1991; Hunter, 2002; Krentzman & Samaras, 1984; Kumar et al., 1999; Murphy, 1999; Thong et al., 1996) and communication (Gable, 1991; Kole, 1983; Kumar et al., 1999; Murphy, 1999; Rouhani, 1998). Client/consultant relationship (Gable, 1991; Kumar et al., 1999; Murphy, 1999).

Service Quality

Numerous surveys have shown that service quality is one area that is ranked highly by respondents (Beaumont & Sohal, 1997; Grant & Krishnan, 1994; Kumar et al., 1999; Rouhani, 1998). Kumar (1999) surveyed 391 members of the Institute of Management Consultants and found that 90% indicated service quality as integral to consultant success.

A great deal of thought has been given to the nature of service quality and how this concept can be identified and measured. Early service quality research tended to focus on the retail sector. Keiser (1988) indicated that organisational growth was enhanced by superior customer service and profit margins were maintained or increased by setting high fees in exchange for premium service.
Service quality was defined as a focus on the customer and meeting their needs.

From the late 1980's and into the 1990's the focus of service quality shifted from customer satisfaction to an emphasis on customer expectations and perceptions of service quality.

Rouhani (1998) viewed service quality from the client perspective and used an adaptation of the SERVQUAL model (Parasuraman et al., 1988) as the method of measurement of perceived as opposed to expected service provision. SERVQUAL was originally designed to measure service quality in the service and retailing organisations and Rouhani (1988) modified the measurement scale to identify the service quality of management consultants in Singapore and Australia.

The SERVQUAL model has five dimensions for assessment of service quality:

- **Tangibles**: appearance of physical facilities, equipment, personnel, and communication materials;
- **Reliability**: ability to perform the promised service dependably and accurately;
- **Responsiveness**: willingness to help customers and provide prompt service;
- **Assurance**: knowledge and courtesy of employees and their ability to convey trust and confidence; and
- **Empathy**: the caring, individualized attention the firm provides its customers. (Parasuraman et al., 1988 p.26)

Rouhani (1988) found that the SERVQUAL model was accurate in assessing the difference between "customer expectations (ideal) and perceptions (actual)"

(Rouhani, p.7). In consultant engagement client expectations may differ from
actual experiences, the difficulty here is with the concept of 'perception'.

Perception is the ability to create meaning, it is "the process of putting sensations together into a usable mental representation of the world" (Mitchell, 2001). Whilst expectations may be unrealistic in client/consultant engagement, perception of what occurred may also be problematic. Perception may be affected by faulty memory, negative or positive experiences of the engagement process and lack of objectivity.

Consultant experience/expertise

Research indicates that the issues related to consultant expertise and experience fall into two broad categories: consultants misleading claims and perceived lack of expertise by those engaging consultants.

Krentzman and Samaras (1984) surveyed 200 small business managers and found that consultants regularly presented themselves as highly experienced, but failed to deliver on promised claims. Interestingly, it was also found that 77% of respondents preferred to use the services of a small consulting firm, indicating that a smaller consultancy would be more sympathetic and understanding of the issues faced by the small business operator (Krentman and Samaras, 1984, p.253).

Gable (1991) also identified consultant experience and expertise as a significant factor in consultant engagement success. He supports Krentzman & Samaras' (1984) view that misleading consultant claims can damage the client/consultant relationship. More importantly, Gable (1991) indicated that SMEs should take a
proactive role in assessing the experience and expertise of the consultant prior to engagement.

It may be expected that without this advance knowledge of consultant expertise that SME perception of the engagement process would indicate that consultant experience/expertise would be lacking. Murphy (1999) indicated that SMEs perception of the engagement process was given more positive weighting based on the level of expertise of the consultant.

**Communication**

Communication issues have been identified as a problem area within consultant engagement practices from both the SME and consultant perspective (Gable, 1989b; Kole, 1983; Kumar et al., 1999; Murphy, 1999). Kole (1983) conducted a case study of a MIS implementation in small business and his findings suggest that one consultant characteristic crucial to IS implementation success is the ability to communicate effectively.

Kole's (1983) study indicated that to achieve clear communication the consultant must "sell himself or herself by establishing rapport and trust with all key people" (Kole, 1983. p.265). He further states that the consultant must "offer advice when needed [and] present regular written reports to keep the project on target and all concerned people informed" (Kole, 1983. p.265).

Kumar *et al* (1999) found that 93% of respondents indicated that communication between the consultant and client was of utmost importance. Communication in Kumar's (1999) study indicated that the ability of the consultant to resolve conflict
and take a leadership role was pivotal. She further suggested that even in situations where IS implementation had been completed, respondents considered the implementation as ineffective if the lines of communication were limited or insufficient (Kumar et al, 1999. p.12).

Client/Consultant relationship

The Client/Consultant relationship has also been identified as a critical factor leading to the success or failure of the consultant engagement process. (Gable, 1991; Kumar et al., 1999; Murphy, 1999). It has been found that 30% of outsourcing relationships end poorly, ranging from general dissatisfaction to instigating legal action (Collofello & Smith-Daniels, 1999). It has been further found that 50% of outsourcing relationships are considered to be complete failures (Ozanne, 2000 p.6). Gable (1991) stated that the “misconceived view of the client/consultant role” (p.88) is one of the prime reasons for the breakdown of the client/consultant relationship.

Murphy (1999) examined client/consultant relationship theory and suggested that the relationship between a consultant and client is one of the most important factors in effective engagement processes. Murphy (1999) further stated that the client perceived value of the relationship is integral in determining client satisfaction or dissatisfaction within the boundaries of the client/consultant dialogue. In terms of relationship development, Fogel (cited in Murphy, 1999, p.48) emphasised the view of such relationships as “action and reaction within mutually negotiated consensual frames through which a relationship develops”.

76
Client/Consultant relationship theory (Gable, 1991; Halinen, 1997; Kubr, 1996; Murphy, 1999) primarily focuses on a two-way dialogue between a client and consultant and presupposes a consensual exchange of information based on mutual negotiation. An interesting factor that appears not to be addressed in client/consultant relationship theory is the concept of power, which may have an influence on the concept of 'consensual'.

Foucault conceptualised power as "relations of power which permeate, characterise and constitute the social body" (Foucault, 1980 p.93). In terms of the client/consultant relationship, both parties have the ability to wield power. The client has the economic power to engage the consultant and the consultant has the power of the knowledge and expertise required by the client. Recognition of the power dynamic and the exchange of power may affect the success or otherwise of mutual negotiation.

When considering consultant engagement in the field of Information Systems, it appears that the balance of power may move in favour of the consultant. Information Systems and Information Technology knowledge and expertise can be considered esoteric and often shrouded in mystery with the use of technical jargon and concepts unfamiliar to the client. Therefore, the power dynamic can become unbalanced and may negatively affect the outcomes of the client-consultant project.
2.5.2 SMEs and Consultant Engagement

As stated earlier, the majority of SMEs do not have either the internal expertise or financial resources to enable the in-house development of Information Systems (IS). (Brown et al., n.d.; DIST, 1998b; Gable, 1989a, 1991; Hunter, 2002; Kole, 1983; Yap et al., 1992). Lack of internal IS expertise may also impact on the SME sector’s ability to design, develop and promote websites. Just as SMEs may employ an accountant for their financial expertise, when considering electronic commerce implementation it has increasingly become standard practice for an SME to engage the services of a website design consultant.

There are a number of issues that impact on the success or failure of a SME engaging a website design consultant. Firstly, it may be the SMEs first attempt at engaging an external consultant and the SME may lack the relevant knowledge and experience required for successful engagement. Secondly, website design consultants are often SMEs themselves, and in the current climate of accelerating growth in the electronic commerce area, website design consultants are often business start-ups and consequently, may lack experience in negotiating successful contracts. Finally, consultants tend to view SMEs as one-off jobs and may consequently lack commitment to the project:

small firms were viewed as one-shot opportunities, offering no potential for establishing a long-term relationship. Consultants...would sell the small firms software and hardware, put together a network, and move on to the next company (McCollum, 1999, p.46).
Thong and Yap's (1996) research examined external expertise for the implementation of Information Systems in small business. Their findings suggest that high quality external expertise is a critical factor for successful IS implementation in the small business sector.

Gable, (Gable, 1989a, 1991) identified a number of issues that SMEs need to consider when engaging the services of a consultant. Critical factors included the amount of time and effort the SME contributes to the project and the maintenance of a clear understanding of the role of the SME and the role of the consultant. Without a clear understanding of the mutual roles in the negotiation process, power imbalances as mentioned above may occur and could consequently cause a negative impact on the successful outcome of the project.

Gable, (1989) developed a twelve phase model of consultant engagement to clarify the role of a SME in selecting a consultant (see Table 2.8 below).

<table>
<thead>
<tr>
<th>Table 2.8 Gable's 12-phase model (1989)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. define the problem;</td>
</tr>
<tr>
<td>2. evaluate internal resources available for the project;</td>
</tr>
<tr>
<td>3. canvass the market for prospective consulting firms;</td>
</tr>
<tr>
<td>4. develop a request for proposal (RFP);</td>
</tr>
<tr>
<td>5. check references;</td>
</tr>
<tr>
<td>6. evaluate proposals;</td>
</tr>
<tr>
<td>7. select a firm;</td>
</tr>
<tr>
<td>8. negotiate the contract;</td>
</tr>
<tr>
<td>9. announce the selection;</td>
</tr>
<tr>
<td>10. continuing review and refinement of mutual and individual responsibilities;</td>
</tr>
<tr>
<td>11. continuing monitoring and control of progress and</td>
</tr>
<tr>
<td>12. post-engagement evaluation of the service.</td>
</tr>
</tbody>
</table>
To enhance clarity, Gable’s model has been adapted and categorised into three distinct areas for this study (as illustrated in Figure 2.15 below): The three categories are: preliminary evaluation, engagement process and post-engagement followup:

Gable’s 12-phase model sought to identify the steps required for successful consultant engagement. It is implicit in this hierarchical model that each step should be followed in order to increase the potential for engagement success.

Gable applied the 12-phase model to a study of a single case study of the SME, ‘Singapore Graphic Designs’, in an attempt to identify the problems and issues SMEs encounter when engaging external consultants (Gable, 1989a). His findings indicated that the consultant engaged for the project did not adequately meet several of the steps in the model (see Table 2.9 below).
Table 2.9. Consultant engagement for first time computerisation in small and medium enterprises (Gable, 1989a)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Phase of Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. consultant lack of commitment</td>
<td>5. check references</td>
</tr>
<tr>
<td>2. consultant lacks experience</td>
<td>8. negotiate contract</td>
</tr>
<tr>
<td>3. no methodical approach</td>
<td>10. &amp; 11. continuing review</td>
</tr>
<tr>
<td>4. inadequate vendor appraisal</td>
<td>6. evaluate proposals</td>
</tr>
<tr>
<td></td>
<td>10 &amp; 11. continuing review</td>
</tr>
</tbody>
</table>

Gable, in a later study, introduced the concept of the ‘pro-active client role in small business’ (Gable, 1991, p.89). This concept, in conjunction with the 12-phase model, was used in a study of five Singaporean SMEs attempting first time computerization. In his findings, Gable identified areas where SMEs failed to adequately meet key steps in the 12-phase model. Gable also assessed the impact of client involvement in consultant engagement finding that “effective engagement requires that the problem is well defined and an appropriate consultant is selected with the problem in mind” (Gable, 1991, p.89). He identified three areas where SMEs could improve their consultant engagement process:

- assess client and consultant compatibility (phases 5, 6, 7 & 8);
- identify and address specific organizational roles (phases 1, 2, 11 & 12) and
- accommodate evolving project objectives (phases 11 & 12) (Gable, 1991, p.91).
Gable's studies focused on first time computerization in Singaporean SMEs. However, in Singapore consultants are employed through the Small Enterprise Computerization Program, (Gable, 1989) a Government program which vets consultants for the SME sector. No such program exists in the Australian environment. There is no regulatory body for consultants in Australia and, in fact, Australian consultants do not even have a code for self-regulation, therefore no-one is accountable if the process fails.

The consultancy literature as discussed in this section indicates several problem areas within the client/consultant relationship process. It is the intention of this study to investigate outsourcing problems specifically in relation to website design consultants and Australian SMEs. Consultancy issues in this research paradigm have a relatively long history, yet problems in the client/consultant relationship process continue to be identified worldwide. As yet no effective model for a new approach to these issues has been developed. To this end this study will primarily use Gable's (1991) model as a guide to understand SME consultant engagement processes within the broader context of the consultancy research arena.

The next section discusses Internet strategy and strategic alignment theory and how these two research areas complement client/consultant relationship theory within the context of this study. It is suggested that analysing these three research areas will enable this study to identify gaps in the literature and form an holistic framework for the design of the research model, the implementation of the research methods and the interpretation of the research findings.
2.6 Internet Strategy

Internet and electronic commerce strategy are considered part of Information Systems strategy in the context of this research. Traditional strategic management literature focuses primarily on the big business sector, it is only in recent years that SMEs strategic management practices have been examined and analysed. Strategic management research in the 1970s and 1980s linked strategy formulation with increased and improved company performance. (Dyson & Foster, 1982; Greenley, 1986; Herold, 1972; Karger & Malik, 1975; Nash, 1983; Venkatraman & Ramanujam, 1986).

All the above research used large companies as the standard for researching strategy management and found that strategic planners tended to outperform non-planners in measures of sales, cash flow, cost savings, and stock price. It was also discovered that strategic planning resulted in an increase in intrinsic value for organisations beyond economic measures of success (Greenley, 1986). Venkatraman and Ramanujam (1986) noted that performance measurement is at 'the heart' of strategic management and classified the varied approaches to business performance measurement as the basis for determining the success of strategic management.

Porter (1991) further developed the concept of strategic management and devised a 'dynamic theory of strategy'. Porter moved beyond earlier research and the focus on models and hypotheses and put forward a new concept in the field, a strategy theory based on the dynamic interconnections between organisational needs and the shifting environment (Porter, 1991, p.111). This became a bold
step that moved strategic management research into a new realm for researchers. Porter's primary focus was on competitive advantage and how companies achieve and sustain this advantage over competitors. Porter's dynamic theory of strategy is considered more suited to the large firm environment and he even suggests that his theory could be used to determine the success of cities or even nations (Porter, 1991, p.111).

An important factor in the success of online enterprises is the ability of both SMEs and website design consultants to align business processes with electronic commerce strategy (Angehrn, 1997; Bergeron et al., 1998; Burn, 1997; Cragg, 1998; Poon & Swatman, 1995; Sauer & Burn, 1997).

Strategic alignment is considered one of the most important factors in relation to Information systems management (Burn, 1997; Henderson & Venkatraman, 1993; Sauer & Burn, 1997). Aligning business strategy with IS strategy has been explored by a number of researchers over the last few years. The concept that the ability to align business strategy with IS strategy will affect successful IS implementation within an organisation is generally accepted as standard.

Strategic alignment theory has evolved over the years from an initial focus on larger enterprises to research conducted specifically with the SME sector as the locus of control. Robinson and Pearce (1984) identified four major research areas in relation to SMEs and strategic alignment theory dating from the 1960's. These four areas included examination of:

* The presence of strategic planning practices (1960's);
* The value of strategic planning in small firms (1960’s);
* Examination of features of strategic planning (1970’s); and
* The content of planning strategies within small firms (1970’s & 1980’s).

(Robinson & Pearce, 1984 p.129).

Robinson and Pearce (1984) identified the last research area as the most critical for identifying planning strategy within small firms. The theory of having a planning strategy is generally accepted as being a critical factor for small firm success, but the actual practice in SMEs lags behind the theory.

This has been validated by a number of researchers who have examined SME business planning processes. It has been found that SMEs planning processes tend to be non existent or informal and often developed in an ad hoc and piecemeal fashion (Kotey & Harker, 1998; Levy, Powell, & Galliers, 1999; Robinson & Pearce, 1984; Rue & Ibrahim, 1998). It has also been suggested that SMEs tend to be reactive in their planning and strategy implementation (Kotey & Harker, 1998; Robinson & Pearce, 1984), resulting in a negative impact on the performance and success of the enterprise. Kotey (1998) further suggested that a continuum of strategy type from proactive to reactive existed. Reactive SME operatives were found to be passive and imitative while proactive SME operatives tended toward leadership and higher success rates in business (Kotey, p.9).

Raisinghani (2001) stated “from a proactive strategy perspective, entering the e-business world takes something of a leap of calculated faith [whereas reactive strategy] is a leap of blind faith (Raisinghani, 2001 p.601).
SMEs tend to focus on the day-to-day operational factors associated with running smaller enterprises (Bergeron et al., 1998; Rue & Ibrahim, 1998). Each day the SME owner/manager contends with the struggle involved in creating a profit only to be hampered by adherence to bureaucratic red tape. SMEs spend an inordinate amount of time dealing with issues that may impact on their business, such as profits, taxation and other areas of compliance (Centre for Electronic Commerce, 1996; DIST, 1998a).

The introduction into Australia of the Goods and Services Tax (GST) in 2000 created a new area of pressure for the SME sector. The GST introduced a new level of taxation compliance with which the SME sector, in particular, has found difficult to come to terms.

The new taxation required a certain amount of preparation by SMEs including consulting with accountants and auditors and GST specialists, this preparation was time consuming and costly for virtually all smaller enterprises. In addition to this, SMEs are now required to fill in Business Activity Statements on a quarterly basis to account for the new taxation (Rigney, 2000). This focus on compliance tends to inhibit general business planning amongst SMEs, which leaves the alignment of business planning with IS strategy in a quandary.

Another factor complicating the issue of strategic planning is whether strategic planning theory and methodologies based on large businesses are acceptable for small business operatives or whether SMEs should be considered significantly disparate entities requiring an entirely different planning focus (Levy et al., 1999; Robinson & Pearce, 1984; Rue & Ibrahim, 1998).
A number of models for SMEs and strategic planning have been devised either adapted from big business requirements, or tailored specifically for the smaller end of the scale.

Cragg, (1998) identified four components of Internet strategy that he suggested should be considered by SMEs when engaging in online commerce. The four components are goals, content, process and functional.

The goals component of an Internet strategy was sub-categorised into primary and secondary goals. Primary goals were identified by Cragg (1998) as the main expected outcomes from the Internet strategy and secondary goals were subsidiary goals. It was suggested that a SME should incorporate both primary and secondary goals within the overall Internet strategy in order to identify exactly what they expected from an online presence.

Cragg indicated that the benefit of incorporating primary and secondary goals would enable SMEs not only to recognise potential economic benefits, but also to realise "...that increased sales can only be considered as one indicator of success." (Cragg, 1998, p.101).

The content dimension of an Internet strategy related to the main use of a SMEs website. It was suggested that this component enabled a SME to clarify the content of the site; the sites current major uses, what the site was intended for; and future plans for the site.

The process component related to identification of the initiation and leadership of the strategy. It sought to differentiate the initiation process from the CEO level or
further down the chain of command and ascertain whether the site was built utilising internal or external expertise.

Finally, the functional component of Internet strategy examined the functions of the website. It was suggested that this could incorporate business-to-business electronic commerce, business-to-consumer electronic commerce, or the implementation of a method for increasing and retaining customers (see Table 2.10 below) (Cragg, 1998, p.103).

<table>
<thead>
<tr>
<th>Goal</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary</td>
<td>to reach an international market</td>
</tr>
<tr>
<td>secondary</td>
<td>to market site to potential customers</td>
</tr>
<tr>
<td>Content</td>
<td></td>
</tr>
<tr>
<td>started with</td>
<td>email, catalogue, order form</td>
</tr>
<tr>
<td>major use</td>
<td>marketing/promotion</td>
</tr>
<tr>
<td>WWW site for</td>
<td>product distribution</td>
</tr>
<tr>
<td>future plans</td>
<td>introduce new functions</td>
</tr>
<tr>
<td>Process</td>
<td></td>
</tr>
<tr>
<td>led by</td>
<td>owner/manager</td>
</tr>
<tr>
<td>whose initiative</td>
<td>internal</td>
</tr>
<tr>
<td>built</td>
<td>external</td>
</tr>
<tr>
<td>Function</td>
<td></td>
</tr>
<tr>
<td>functions of site</td>
<td>business-business, business-to-consumer</td>
</tr>
</tbody>
</table>

The four categories of Cragg’s (1998) Internet strategy have been used to guide the strategic planning part of the data collection for this study. By combining the four factors – goals, content, process and function – a complete electronic commerce strategy may be developed.

With little or no knowledge of e-business strategy, the ability to develop an initial Internet strategy eludes the majority of SMEs. This is where the concept of
strategic alignment provides a cognitive fit. Henderson & Venkatraman (1993) devised a model for strategic alignment that links four areas of strategic dimensions: business strategy, information technology strategy, organisational infrastructure and process, and information technology infrastructure and processes (see Figure 2.16 below).

*Figure 2.16 Strategic Alignment Model [Henderson, 1993, p.476 #255]*

In this multi-dimensional model, each strategic imperative is linked and cross-linked to each domain within the model. Each conceptual component – business strategy and I.T. strategy is linked with the operational components –
organisational infrastructure and process and information systems infrastructure and processes. Thus making the connection that conceptual business and strategy planning is linked with the more concrete operational tasks within an organisation. Henderson and Venkatraman (1993) suggested that all four components should be considered when an organisation considers IS planning. Burn (1997) suggested that Henderson and Venkatraman’s (1993) model is a good starting point when examining strategic alignment. She also points out that the model assumes a sense of stasis in alignment, whereas alignment of any two of the four components may cause a mismatch if there is change in a corresponding area.

In this study, strategic alignment is the fit between the SME, consultant engagement and Internet strategy. This has lead to a re-working of Henderson and Venkatraman’s (1993) model to include the strategic alignment of the SMEs internal infrastructure and processes and the SMEs business strategy with the consultant’s SME management strategy, effectively creating a new step in the model. Stasis of the model is assumed in this instance as the strategic alignment is for the purpose of implementing an e-commerce component within the SME business.

It could be suggested that SMEs focus on the bottom left quadrant of Henderson and Venkatraman’s (1993) Strategic Alignment Model – the Organisational, Infrastructure and Processes domain and consultants focus on the bottom right quadrant IS infrastructure and process. To create a more appropriate strategic fit it is proposed that SMEs outsource electronic commerce strategic planning as
well as the more technical and design aspects, thus creating a new dimension of strategic alignment - the fit between the consultants e-commerce strategies and the SMEs strategy requirements. The next section outlines the development of the theoretical framework and research model developed for this study.

### 2.7 Theoretical Framework

The following theoretical framework was formulated to gain an understanding of the relationship between SMEs, Internet strategy and consultant engagement. Firstly, it shows that SMEs need to have a clear idea of their Internet goals and the strategies required to meet those goals, to achieve an effective online presence (Cragg, 1998). It has also been suggested that with little or no knowledge of e-business strategy, the ability to develop an initial Internet strategy eludes the majority of SMEs.

As with consultant engagement the majority of SMEs do not have either the internal expertise or financial resources to enable the in-house planning and development of electronic commerce (DIST, 1998b; Thong and Yap, 1996). This lack of internal IS expertise may also impact on the SME sector’s ability to strategically plan, develop and promote websites.

Therefore, it is suggested that SMEs tend to rely on external consultants to plan, design and implement websites. In order to explore and analyse these assumptions, Gable’s (1991) 12-phase model of consultant engagement was employed to evaluate SME involvement in engaging external consultants to design their website.
Based on the research areas analysed in this literature review a new model of strategic partnership has been designed, which incorporates the major research paradigms of consultant engagement theory, Internet strategy and strategic alignment theory. The new model incorporates the strategic fit between the SME’s business strategies and plans and SME internal infrastructure, processes and skills and the consultant’s management strategy, an area of research that has not been addressed in the literature (see Figure 2.17 below):

Supporting research which underpins the strategic partnership model are identified below:
All four quadrants of the strategic partnership model are required to be in alignment to facilitate a successful outcome in the outsourcing of the SMEs e-commerce initiative. Misalignment of any one of the four quadrants would result in the success of the SMEs e-commerce initiative being adversely affected.
The main objective of this study is to develop a framework to identify and analyse critical factors which may lead to the success of building the online organisation in Australia. The literature has clearly shown that there are significant opportunities for SMEs and electronic commerce, whilst at the same time barriers to participation and uptake by SMEs is still unacceptably high. Therefore, it is suggested that SMEs need assistance in the areas of consultant engagement, planning and strategic management.

An online training course will be developed by the researcher, designed as a website and aimed specifically at the SME sector. The content of the course will include five training modules and be based on an analysis of the research in the literature review, guided by the strategic partnership model and input from SMEs through interviews and focus groups.

2.8 Summary

This chapter has given an overview of the literature on SMEs; Internet strategy; Strategic alignment theory and consultant engagement theory and practices. It examined the literature relevant to the understanding of Australian SMEs and business to consumer electronic commerce.

The research areas examined in this chapter included:

* The importance of Australian SMEs to the Australian economy and employment;
* The opportunities for SMEs when considering electronic commerce;
* The barriers faced by SMEs when considering electronic commerce;
Important research has been identified and examined which led to the formation of the theoretical framework and SME/Consultant Strategic Alignment Model. Research which informs this current study include Gable's 12-phase model for consultant engagement (Gable, 1991); Cragg's (1998) Internet Strategy Framework which identifies four areas of Internet strategy that may be useful for SMEs to consider when engaging in online commerce. Finally, Henderson and Venkatraman's (1993) Strategic Alignment Model was examined and adapted to guide this study and to provide answers to the research questions. Strategic alignment has been considered one of the most important factors in relation to Information systems management (Burn, 1997; Henderson & Venkatraman, 1993; Sauer & Burn, 1997).

The ability to align business strategy with IS strategy which will affect successful IS implementation within an organisation is considered to be a standard concept. Furthermore, as SMEs outsource the technical aspects of website development they concomitantly outsource the strategic planning and management aspects of electronic commerce initiatives. It is therefore considered imperative that, as suggested by the theoretical framework, all four areas of SME/Consultant interaction be in alignment to effect a successful outcome for both parties.

In order to assist SMEs and consultants achieve a more successful client/consultant relationship and to improve the prospects of electronic commerce project success a Consultant Engagement Online Training Course will
be developed by the researcher with specific learning outcomes identified. The course will be trialed on the SME sector to gauge its usefulness.

Chapter Three will discuss the research design and methodology used in the study.
3. RESEARCH METHODOLOGY

3.1 Introduction

To select an appropriate research methodology for this study, a substantial literature review was conducted. Information Systems research encompasses two broad categories quantitative (positivist) and qualitative (interpretive, grounded theory and action research). This study is based on a qualitative rather than a quantitative model of disciplined inquiry. Patton (1991) points out that qualitative research, including ethnomethodology, symbolic interactionism, hermeneutic inquiry, grounded theory, naturalistic inquiry, and ethnography allows the researcher to study phenomena to a greater depth than is possible with quantitative methods. Guba (Guba, 1981) states that in selecting a methodology one should choose a model appropriate to the “phenomenon being investigated” (p.76).

It was felt that qualitative research best served this study, in particular qualitative research was identified in the literature as necessary in exploring issues about perceptions (Patton, 1991). Although a research survey might examine people's awareness and use of consultants, the exploration of attitudes towards consultants and perceptions about electronic commerce success might be more usefully done qualitatively. In particular, research of this type might usefully explore perceptions of consultant service provision and perceived or actual
barriers to successful consultant engagement, such as communication and semantic differences.

3.2 Philosophical Perspective – Interpretivist

The research design and methodology for this study is based on an interpretivist perspective. "The objective of interpretive research is to piece together people’s words, observations and documents into a coherent picture expressed through the voices of the participants" (Trauth & Jessup, 1999, p.26) and as Fisher states "It [the interpretivist approach] does not seek to identify or test variables but to draw meaning from social contexts" (Fisher & Arnott, 1998, p.216). The philosophical background to the Interpretive research approach come from the following traditions:

Hermeneutics: "Hermeneutics is the project of interpretation, especially the process of coming to understand a text. Hermeneutics emerged as a concern with interpreting ancient religious texts and has evolved to address the general problem of how we give meaning to what is unfamiliar and alien" (Boland, 1991, p.439);

Phenomenology: The tradition of Phenomenology as a philosophy is found in the writings of Husserl, a German philosopher, whose intention was to understand the meanings of people and situations through their subjective experience. "What is the structure and essence of experience of this phenomenon for these people?" (Patton, 1990).
Use of the interpretivist approach is to enable the researcher to make sense of the people and organizations involved in a research project. Interpretivist research allows theory development via an inductive process whereby "immersion in the details and specifics of the data to discover important categories, dimensions, and interrelationships; begin by exploring genuinely open questions rather than testing theoretically derived (deductive) hypotheses" (Patton, 1990, p.40).

The interpretivist approach differs from the positivist perspective whereby research is conducted in order to test theory using a deductive process and applying a natural science methodology to social phenomena (Bryman, 1984; Fisher & Arnott, 1998).

Klein and Myers (1999) define positivist research as dependent on "...formal propositions, quantifiable measures of variables, hypothesis testing, and the drawing of inferences about a phenomenon from a representative sample to a stated population" (p.69). Quantitative research gives a more generalisable picture of the problem whereas qualitative research seeks to increase the understanding of the problem (Patton, 1990).

A positivist approach is not considered suitable for this study as positivism assumes the existence of objective or value-free data, whereas interpretivism implies that knowledge is a social construction. Thus, in interpretivist research, "value-free data cannot be obtained, since the enquirer uses his or her preconceptions in order to guide the process of enquiry" (Walsham, 1995).

To ensure rigour and allow transparency of the research process whilst utilising an interpretivist perspective for this study, Klein and Myers (1999) Seven
Principles for Interpretive Field Research were examined to identify which of the
principles were appropriate for this study, see Table 3.1 below:

<table>
<thead>
<tr>
<th>Seven Principles of Interpretive Research (Klein &amp; Myers 1991)</th>
<th>This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. The Fundamental Principal of the Hermeneutic Circle</strong> - This principle suggests that all human understanding is achieved by iterating between considering the interdependent meaning of parts and the whole that they form.</td>
<td>Data collection and data analysis were conducted in an iterative fashion. As data analysis was conducted new patterns emerged &amp; increased the researcher's understanding of the research topic. The focus of the data as individual parts evolved to create meaning as a whole.</td>
</tr>
<tr>
<td><strong>2. The Principle of Contextualization</strong> Requires critical reflection of the social and historical background of the research setting, so that the intended audience can see how the current situation under investigation emerged.</td>
<td>The research subjects are placed in context and examined within the parameters of Cragg's Internet Strategies (1998), Gables 12-phase model of consultant engagement (1989) and Henderson and Venkatraman's (1993) Strategic Alignment Model.</td>
</tr>
<tr>
<td><strong>3. The Principle of Interaction Between the Researchers and the Subjects</strong> Requires critical reflection on how the research materials (or &quot;data&quot;) were socially constructed through the interaction between the researchers and participants.</td>
<td>A pilot study was conducted prior to the main research in order to test and refine the interview questions. Any unclear or convoluted questions were re-worked for the main research study.</td>
</tr>
<tr>
<td><strong>4. The Principle of Abstraction and Generalization</strong> Requires relating the idiographic details revealed by the data interpretation through the application of principles one and two to theoretical, general concepts that describe the nature of human understanding and social action.</td>
<td>The development of theory for this study based on the theoretical framework in Chapter Two. Seeks to address the validity of inferences drawn from the data &quot;...the plausibility and cogency of the logical reasoning used in describing the results from the cases, and in drawing conclusions from them&quot; [Walsham, 1995, p.15 #134].</td>
</tr>
<tr>
<td><strong>5. The Principle of Dialogical Reasoning</strong> Requires sensitivity to possible contradictions between the theoretical preconceptions guiding the research design and actual findings (&quot;the story which the data tell&quot;) with subsequent cycles of revision.</td>
<td>This study used negative case analysis from Minichiello, (1995) to identify incidences of cases that did not fit within the theoretical framework as outlined in Chapter Two. The data collection procedures were not revised as this was considered more in keeping with Grounded Theory research.</td>
</tr>
<tr>
<td><strong>6. The Principle of Multiple Interpretations</strong> Requires sensitivity to possible differences in interpretations among the participants as are typically expressed in multiple narratives or stories of the same sequence of events under study. Similar to multiple witness accounts even if all tell it as they saw it.</td>
<td>The use of multiple sources of data from SMEs, consultants and secondary sources ensured that differences in interpretation were minimized. Inter-rater reliability was also conducted using two independent reviewers. Reliability was calculated using the formula as outlined in Miles &amp; Huberman, 1984, p.64) where reliability equalled the number of agreements divided by the total number of agreements plus disagreements.</td>
</tr>
<tr>
<td><strong>7. The Principle of Suspicion</strong> Requires sensitivity to possible &quot;biases&quot; and systematic &quot;distortions&quot; in the narratives collected</td>
<td>It is suggested that the use of multiple interpretations, multiple SMEs and consultants overcomes the principles of suspicion. The use</td>
</tr>
</tbody>
</table>
from the participants. “This approach goes beyond the understanding of the meaning of the data...it points the researcher to ‘read’ the social world behind the words of the actors” (Klein & Myers, 1999).

of multiple interpretations ensures no singular distortion is evident. Any bias within the ‘stories’ told by the participants indicates that they ‘told it as they saw it’ and is part of the phenomenon being investigated.

It was found that six of the Principles for Interpretive Field Research were directly relevant to this study. The seventh principle was incorporated within the principle of ‘multiple interpretations’. Each of the principles were considered interdependent parts of the whole study and provided an holistic, complex method of understanding the data in relation to the research questions and theoretical framework.

3.3 Methodology

Qualitative research represents a variety of methods that are designed to assist researchers in understanding the people and the phenomenon being studied.

There are four types of research methods that are useful in interpretivist studies, including Action Research, Grounded Theory, Ethnography and Case Studies. Each of these will be examined and analysed for their perceived usefulness for this study.

3.3.1 Action Research

Action research is used to solve specific problems in organisational settings. The main premise of this type of research is for the participants to be actively involved in the research process and for the researcher to produce results that may be implemented in the organisation studied (Eden & Huxham, 1996). The advantages of this method is the potential to resolve problems and the intent of the researcher to change the organisation as a result of the research.
It is not the intention of this study to change or intervene in the workings of the SMEs and therefore an Action Research method is considered inappropriate.

### 3.3.2 Grounded Theory

Grounded theory refers to an inductive process of generating theory from the data (Strauss & Corbin, 1990) and implies a lack of pre-existing concepts and knowledge of the phenomena to be studied. This affects the researcher’s ability to conduct a thorough literature review and mitigates against conducting a pilot study.

Some researchers consider grounded theory to be undisciplined and lacking structure (Brown, G. 1973; Carroll, Dawson, & Swatman, 1998). Grounded theory has been eliminated as a method for this study. It was felt that such an approach would not be suitable for this study as the aim was to develop theory within the parameters of pre-existing theory and research models.

### 3.3.3 Ethnography

Ethnographic research is characterized by extended periods of fieldwork (Barley, 1990). Traditionally, ethnographic research is associated with anthropology, sociology and the study of culture. In recent years it has become more popular among the business disciplines, including Information Systems (Davenport, 1996; Despres, 1996; Schultze, 2001; Neuman, et al 1997). This form of research may have been a useful method for this study but it was not considered practical for a dissertation due to time constraints. Therefore, ethnographic research was eliminated as a method for this study.
3.3.4 Case studies

To find an appropriate research methodology for this study, a review of the literature on research methods in Information Systems, Electronic Commerce and SMEs was conducted. It was decided that theory development using a multiple case study approach would be utilized. As electronic commerce, particularly in Australia, is still in an emergent phase it was felt that the case research methodology would be most appropriate:

Case research is best utilized when the goals of the researcher and the nature of the research topic influence the selection of a strategy. Case research is particularly appropriate for certain types of problems: those in which research and theory are at their early, formative stages. (Benbasat, Goldstein, & Mead, 1987).

A review of the literature into research methodologies highlighted the usefulness of the case methodology in new and relatively new fields (Benbasat et al., 1987; Carroll et al., 1998; Poon & Swatman, 1997; Rose, 1991; Stake, 1994; Yin, 1994).

In a high proportion of Information Systems research case studies are frequently used to test hypotheses. The case studies tend to be modelled on the natural science method of scientific research by adopting a positivist approach (Lee, 1991). As quantitative research methods have been eliminated in this study another perspective on case studies was required.

The case study is a powerful tool that allows the use of "thick description" (Denzin & Lincoln, 1994) to enhance participants' views and actions in situated contexts. It
allows the researcher to cover contextual issues and retain the holistic and meaningful characteristics of real life events.

Yin (1994) further defines a case study as "an empirical inquiry that investigates a phenomenon within its real-life context" (p.13), using multiple sources of data collection. He notes that case studies can be based upon qualitative as well as quantitative data. Yin (1994) developed a model for the steps required in designing case research. Yin starts with theory development as the initial step in case study design “…the initial step in designing the case study must consist of theory development…” (1994, p.49). This study has modified Yin’s design and incorporated the literature review as the first step (see figure 3.1 below). It is believed that theory development as a second step is given strength through an initial review of the literature and the identification of gaps in the research.

The adapted model also includes an additional step, the design of a meta matrix for coding and analysing the data as outlined by Miles and Huberman (1994). A meta matrix is “…the ‘crossing’ of two lists, set up as rows and columns.” (1994, 93). The purpose of this method of analysis is to enable the data to be analysed visually, the data from multiple cases to be easily compared and contrasted, and themes and patterns identified (1994).
Benbasat, et al. (1987), similarly defines case studies as:

A case project examines a phenomenon in its natural setting, employing multiple methods of data collection to gather information from one or a few entities... The boundaries of the phenomenon are not clearly evident at the outset of the research and no experimental control or manipulation is used... The case project researcher may have less a priori knowledge of what the variables of interest will be and how they will be measured. (Benbasat et al., 1987 p.370)

Benbasat, et. al. lists eleven key characteristics of case studies:

1. Phenomenon is examined in a natural setting;
2. Data are collected by multiple means;
3. One or a few entities are examined;
4. The complexity of the unit is studied intensively;
5. Case studies are more suitable for the exploration, classification and hypothesis development stages of the knowledge building process; the investigator should have a receptive attitude towards explorations;
6. No experimental controls or manipulation are involved;
7. The investigator may not specify the set of independent and dependent variables in advance;
8. The results derived depend heavily on the integrative powers of the investigator;
9. Changes in data collection methods could take place as the investigator develops new hypotheses;
10. Case research is addressing "why" and "how" questions…rather than frequency or incidence;
11. The focus is on contemporary events. (Benbasat et al., 1987 p.371).

This study has incorporated all of the above eleven steps as identified by (Benbasat et al., 1987), although step 1 has been modified to incorporate different data collection methods.

Step 1: (Modified) The data collected for this study was obtained at the SMEs business premises (their natural setting). With the exception of data collected via the Virtual Focus Groups see 3.3.1.2 below.

Step 2: The data was collected using in-depth interviewing and online focus groups.

Step 3: Thirty SMEs and five consultants were included in the sample.

Step 4: The cases were studied intensively and analysed in an iterative and overlapping fashion.
Step 5: This study used case study research based on the theoretical framework outlined in Chapter two and the research questions that arose from the Literature Review.

Step 6: No experimental controls or manipulation were involved in this study.

Step 7: The researcher did not specify a set of independent and dependent variables.

Step 8: The results were derived based on the integrative powers of the researcher by analysing multiple data sources within and across the cases, following the interpretivist guidelines as outlined in point 2. above.

Step 9: Changes in data collection methods did take place, from the initial pilot study to in-depth interviews of the SMEs and consultants and online focus groups.

Step 10: This study addressed the "why" and "how" questions relating to the phenomena, rather than frequency or incidence counts.

Step 11: This study is focused on contemporary events relating to Australian SMEs, Internet strategy and engagement of website design consultants.

The following section will discusses issues of validity and reliability in qualitative research.
3.3.5 Issues in Case Project Research

When collecting and analysing qualitative data, the issues of reliability and validity are paramount. Although this research project follows traditional case method research, there are some drawbacks to using case research. The first focuses on the reliability and validity of case research, the second deals with the generalizability of the research results and the third deals with ethics in research.

3.4 Reliability and Validity

As with all research efforts, it was critical that this study displayed both reliable and valid measures of its procedures. Both Lincoln and Guba, (1985) and Miles and Huberman, (1994) discuss methods to ensure reliability and validity in qualitative analysis. Although it was not feasible to employ all suggested methods, multiple forms of reliability and validity checks were necessary to ensure that this study was valid.

Reliability in qualitative research depends "...largely on the skills of the researcher" (Miles & Huberman, 1994 p.38). Miles & Huberman (1994) identified several characteristics to look for to improve reliability in a researcher identified "...as an information-gathering instrument" (p.38). These characteristics are:

Some familiarity with the phenomenon and the setting under project;

Strong conceptual interests;

A multidisciplinary approach, as opposed to a narrow grounding or focus in a single discipline;
Good "investigative" skills, including doggedness, the ability to draw people out, and the ability to ward off premature closure. (Miles & Huberman, 1994 p.38).

The researcher made an effort to ensure all four qualities were present. In terms of familiarity with the phenomenon, the researcher used prior knowledge and experience of small business and electronic commerce to guide the topic. The researcher gained a broader perspective by reading a wide range of literature about SMEs, electronic commerce, Internet strategy and consultant engagement.

To develop strong conceptual interests, the researcher again read a wide range of literature on the phenomena being studied and collected and analyzed secondary data sources and case studies on SMEs, Information Systems success, Internet strategy, consultant engagement and electronic commerce.

A multidisciplinary approach was considered essential from the inception of the study. The primary disciplines this research is based on are: Information Systems and Business Management.

The final characteristic of having good investigative skills is harder to prove. Tenacity is a definite characteristic of the researcher evidenced by the researcher's ability to encourage SME Owner/Managers to be included in the study. SMEs as a group are renowned for having a lack of time to participate in research studies.

Reliability is further increased by the researcher maintaining an audit trail of the research as suggested by [MacMillan, 1999 #132; and Northey, 1997 #116]. Brief case reports and summaries of the interviews were recorded throughout the
research project and direct quotations from participants were used to enhance and support the research findings.

This study also employed triangulation of sources to enhance both the validity and the reliability of the findings. Triangulation is a method of increasing validity and reliability by using a combination of sources and/or methods for collecting data. Relying on one source of data may incur bias and triangulation of data seeks to ameliorate this problem (Burgess, 1984).

Triangulation of sources for this research project included interviewing SMEs and consultants, conducting focus group interviews, analysing secondary data sources and content analysis of consultants' websites.

3.4.1 Generalizability

One of the most significant criticisms of case studies is that they are not generalizable to a population. Although this may be the case, all research methods have some type of drawback. Case research maximises contextual realism but one outcome of this is the loss of some generalizability and control [McGrath, 1982 #224]. The use of multiple cases in this research seeks to partially offset this loss and allow some confidence in generalizability of the findings to the Australian SME population.

3.5 Ethics

In case research, as in all research, ethics are an issue that need to be addressed, particularly for any study involving human participants. Several books and articles have identified ethical issues that the qualitative researcher must
consider prior to conducting a study. These issues include confidentiality, informed consent, data access and ownership (Patton, 1990; Reynolds, 1979).

This study received ethics approval from the Committee for the Conduct of Ethical Research of Edith Cowan University. The ethical requirements of the Committee were met by adherence to the following guidelines:

- All participants were voluntary and there was no coercion to participate and no reward offered for participation. Informed consent was obtained from all participants.

- All Participants were given a Statement of Disclosure and Informed Consent approved by the Human Research Ethics Committee of Edith Cowan University (see Appendix 1).

- All participants voluntarily signed a consent form (see Appendix 2) that detailed the scope and intention of the study and outlined the rights of the participants.

- Participants were informed that they could withdraw from the research at anytime without penalty.

- Anonymity was guaranteed for all participants and all interviews were given coded numbers and not referred to by name. Participants in the Virtual Focus Groups were able to login using pre-assigned coded numbers.

- All identifying information was removed from interview transcripts and care was taken to avoid identification of participants in direct quotes within the study.

- Permission to tape and record interview data was requested prior to interviews.
• All participants received complete copies of interview transcripts and were invited to comment.

3.6 **Data Collection Procedure**

Two types of data were used in the research: primary and secondary data. The primary data collected consisted of interviews and online focus groups.

3.6.1 **Primary Data**

3.6.1.1 **Interviews**

Interviews were conducted with participants in order to ask for opinions and experiences in consultant engagement processes. Data was collected from semi-structured interviews with the Owner/Managers of fifteen Western Australian SMEs and five Website Design Consultants (see Appendix 3 for Interview Schedules). Information was gathered on the participant's demographic details, Internet strategy, e-commerce goals and consultant decision making process based on Gable’s (1991) and Cragg’s (1998) models.

The interviews were semi-structured so that participants were able to offer their own ideas for discussion and the interview was flexible enough to allow the following up of new themes.

The equipment used for the face-to-face interviews was a Sanyo micro-cassette recorder with inbuilt microphone.
3.6.1.2 Virtual Focus Groups

Focus groups are designed dependent on their purpose (Knodel, 1993) and offer another method of triangulation. The importance of focus groups is that a small group of well informed individuals brought "together as a discussion and resource group, is more valuable many times over than any representative sample" (Frey & Fontana, 1993 p.24).

The purpose of the focus group is to generate debate on a particular topic or number of issues and allow all members to participate freely. The value of Virtual Focus Groups is the anonymity of the process. This anonymity allows differences in status to be ignored and allows the debate to be open and accessible to all participants.

Virtual Focus Groups are a relatively new form of Computer Assisted Interviewing (CAI). CAI has been adopted by researchers in diverse disciplines and early forms of CAI can be dated back to early telephone market research in the United States in the 1970's and in Holland in the 1980's (de Leeuw & Nicholls, 1996).

This form of data collection has been widely used to collect survey data and utilized quite extensively in quantitative studies (Coomber, 1997; de Leeuw & Nicholls, 1996; Porst, Schnied, & van Brouwershaven, 1994; Saris, 1991).

Virtual focus group interviews have only been possible with the development of the Internet and the World Wide Web during the 1990's. The advantages of VFG interviews include the ability to reach geographically dispersed populations, maintain anonymity (interviewees can login using pseudonyms) and minimization of travel and time constraints (Murray, 1997).
Most researchers have conducted asynchronous focus groups either through email correspondence, a listserv or bulletin board (CEC, nd; Coomber, 1997; de Leeuw & Nicholls, 1996; Hanman, 1996; Kralik, 1999; Murray, 1997). For this study two separate synchronous focus groups of 7 and 8 participants were conducted in real time. This allowed participants to function as a group and respond to each other’s comments in order to enhance the interview process. “The object is to get high-quality data in a…context where people can consider their own views in the context of the views of others” (Patton, 1990, p.335).

Virtual focus groups were conducted for this study to capture data from interstate SMEs. Virtual focus groups were considered a valid and unusual data collection method for this study as they allowed a broader inclusion of participants Australia wide. Australia is a geographically immense country and Interstate travel to conduct face-to-face interviews was not considered possible due to financial and time constraints.

Within qualitative research, focus groups have particular strengths for gathering the breadth and depth of participants’ opinions on issues specified by the researcher (Murray, 1997).

Patton (1990) has described focus group interviews as a method of exploring issues with groups of between 6 to 8 people and generally conducted within a timeframe of between 30 minutes and two hours. Within the focus group interview, participants discuss the topics introduced by the researcher and have the opportunity to respond to each other’s statements. Minichiello (1995)
suggests that focus groups have the benefit of alerting the researcher to "what is considered significant and/or contentious within that arena" (Minichiello, Aroni, Timewell, & Alexander, 1995, p.67). Patton (1990) further elaborates that focus groups are an appropriate technique for gathering data and provide "credible and useful results...when conducted carefully and used appropriately" (Patton, 1990, p.337).

In addition focus groups offer several advantages as noted by (Dreachslin, 1998). Focus groups allow respondents to react and to build upon the responses of other group members which may result in much broader and deeper data. The comment of one member may trigger a chain of responses from other respondents. As (Asbury, 1995) explains "focus groups are a data collection technique that capitalizes on the interaction within a group to elicit rich experiential data" (p. 414).

However, focus group research has its limitations. The number of questions asked is limited to allow for responses from all participants within the timeframe of 30 minutes to one hour (Patton, 1990). The researcher has less control over the data produced (Morgan, 1988) than in one-to-one interviewing. The nature of focus group research is open-ended and cannot be easily or entirely predetermined. In this study, the researcher attempted to reduce the limitations of this type of research by developing an interview schedule based on the schedule for the one-to-one interviews.

For the focus group interviews the researcher and the participants used standard pentium PCs or Apple Macintosh computers with Internet access using either
Netscape Navigator or Internet Explorer browser software. Each participant had either an inbuilt or external modem of 28.8bps or higher and the researcher had access to the Universities ISDN line and permanent Internet access. The participants relied on dial-up Internet access and were given written advice on steps to take if access was disconnected during the focus group sessions.

3.6.1.3 Technical details of the virtual focus groups

The researcher designed a website with technical assistance and hosting from Dow Digital (the consultancy group that assisted in the funding of this study). The website included a free “shareware” chat room for conducting virtual focus groups over the Internet. The researcher acted as the moderator of the group, introducing each question and keeping the participants on track whilst allowing the ‘flow’ of information to develop unimpeded.

The website was structured to encourage ease of navigation by the SMEs, colours were kept simple and clear to avoid visual overload and the website was designed to be cross-platform and multi-browser compatible. Once participants accessed the website they were greeted by a welcome screen with information about the study and information on how to access and use of the chatroom. At the bottom of the screen was an “enter” button to access the chat room and a series of menu buttons were located on the left of the screen to allow participants to access the initial ‘home’ page, chat, a help page and contact page. Figure 3.2 below is a visual representation of the chat room within the website.
The chat window is where all of the discussion entered by the participants appeared. The thin window below the chat window is the text window command.
line. Participants were directed to click in the text window command line to begin discussion, comments could be keyed into the command line and to add the discussion to the chat window participants were instructed to hit the ‘enter’ key.

There were two principal reasons why information was collected from the focus groups. The first was to use each group as a resource to identify themes and patterns not identified in the one-to-one interviews. The second was to validate findings from the one-to-one interviews. Thus the virtual focus groups were a valuable adjunct in the data collection procedure. The next section discusses the other data sources used in this study.

3.6.2 Secondary Data

In order to gain a richer picture of the SME environment in Australia additional literature reviews were conducted. They included searches in the popular press (magazines and newspapers), IS journals, academic journals, and web sites. Additional sources of secondary data included:

ABS statistics

Government publications

Small Business Development Centre publications

Chambers of Commerce publications

These documents provided a strong background for the researcher to gain an understanding of Australian SMEs.
3.6.2.1 Content analysis of consultants' websites

Traditional content analysis involves the study and analysis of written texts, in the form of documents, plans, records, written correspondence and any other written or recorded format (Mayring, 2000, p.2). Krippendorff defines content analysis "...as a valid method for making specific inferences from text to other states or properties of its source" (Krippendorff, 1980, p.103). As a method, content analysis follows a set of steps that allows the researcher to make valid inferences from a text based source (Weber, 1985).

Krippendorff, (1980, p.110) suggests that there are five steps involved in the processing of conducting content analysis. Firstly, a research question(s) or hypothesis is formulated. Second, a sample is selected the sample size is dependent on the purpose and goals of the study. The third step in this process is defining coding categories. The fourth step is choosing the coder(s) and having their coding checked (inter-rater reliability). Fifth, the data collected is analysed and interpreted, the tools used to analyse the data is determined by the type of data collected and the research questions addressed in the study (Krippendorff, 1980).

The steps followed in this study are developed as a procedure whereby coding categories are formulated based on the theoretical framework and research questions, which then allow themes and patterns in the data to emerge.

The content being analysed in this study involved online web pages from website design consultants and therefore the unit of text had to be determined. Websites may consist of one static page through to hundreds of dynamically linked web...
pages. To conduct a content analysis of a large dynamically linked web site would be counter-productive and not suited to the purposes of this study.

For this study the unit of analysis was determined to be the homepage, or initial screen of the site or the page where claims regarding experience and expertise were relegated. In some instances, the consultant made use of the homepage to set out their claims. Other consultants had special client sections linked to the home page. When a small and medium enterprise client section was identified this was determined to be the unit of analysis and was examined for any claims regarding experience and expertise.

Information identified through this source was sought to verify and expand on information gained from other sources (Yin, 1994, p.81) and not given in the spoken form (Hodder, 1994, p.395).

Each consultant website had their written content analysed individually. Each website was downloaded and the written content was entered into the N*VIVO database (see 3.7.2 below for an explanation of N*VIVO as a qualitative coding tool). The data was coded and themes and patterns identified. During the preliminary analysis, searches were conducted for descriptive phrases and incongruities with the consultant interviews. At times clarification was sought from the consultants about meanings or reasons for particular statements on their websites.
3.7 Online Training Course for SMEs

As the focus of this research was to identify critical development factors to increase the success of Australian SMEs engaging in online commerce, an Internet based online training course was developed and tested as both a data collection procedure. The online training course was developed when the results of the primary and secondary data collection had been analysed. This data was then used to inform the design, development and implementation of the online training course. It was envisaged that the online training course would consist of five training modules. The modules would include: consultant engagement, planning and strategic management components. Other possible modules were to be determined following evaluation and analysis of interview and focus group data. Each of the modules were designed with a series of quizzes to test the memory retention of the SMEs.

The online training course was tested on 18 SMEs who had not yet engaged a consultant for their website development, but were considering hiring a consultant in the near future, one of the SMEs had originally been a website design consultant. The object of the trial of the CEOTC was to gain high-quality feedback from the participants and to evaluate the usefulness of the course for SME practitioners and as a tool for future research. The development of the online training course is discussed in chapter six and the results from the trial discussed in chapter seven.

The following section describes the selection of participants used in the case studies for the interviews and focus groups.
3.8 Sample

The study sample was selected using a non-probability sampling method. There are several forms of non-probability sampling including *quota sampling*, *snowball sampling* and *theoretical sampling* (Minichiello et al., 1995).

*Quota* sampling, also known as *consecutive* sampling, refers to the selection of participants by segment e.g. age or gender and consecutively selecting them until the required number was reached. This was not considered suitable for this study as the sample population had to meet predetermined criteria and consecutive selection was not possible.

*Snowball* sampling involves the researcher selecting an initial cohort of participants in a particular social or organisational situation and using them as contacts to reach other people within their network until the required number was met (Minichiello, p.161). Again, this method of sample selection was not considered suitable for this study as not all SMEs are actively engaged in electronic commerce and the *snowball* may have hit a dead end early on in the process.

For this study, the sample was chosen via a deliberate theoretical sampling plan as outlined by Minichiello (1995, pp162-164). The basic premise of theoretical sampling implies that participants are chosen deliberately to suit the parameters of the research.

In this study, the parameters included online Australian SMEs whose websites were designed by a Website Design Consultant. As Burgess (1984) states “Theoretical sampling…involves researchers in observing groups with a view to
extending, modifying, developing and verifying theory" (Burgess, 1984, p.56).

Minichiello et al, (1995) adds that theoretical sampling must be relevant to the evolving data. He further suggests that theoretical sampling requires 'purposeful' selection of informants that "have been identified as relevant categories in the literature" (p.163).

Five Internet directory sites were reviewed: aussie.com.au; perthwa.com.au; webwombat.com.au and www.sydney.directory.citysearch.com.au, http://www.excite.com.au/directory/categories/technology/internet/web_site_design/web_designers/. From this, fifteen consultants were identified and approached to participate in the research study. The consultants were chosen based on the following criteria:

* Located in Australia

* Provided electronic commerce services for small and medium enterprises

* Offered strategic planning and development

* Offered website design and implementation

* Offered project management.

Five consultants fitting the above criteria agreed to participate in the research. The SMEs were chosen from the client pages of the original thirty consultant websites. From this, 250 online SMEs and approached to participate in the research study.

The SMEs were chosen based on the following criteria:
* non-employing micro business (owner/operator)
* 1-5 employees (micro business)
* 6-20 employees (small business)
* <200 employees (medium business)
* Retail or service business;
* Websites capable of electronic transactions;
* Website designed by an external consultant; and
* Business located in Australia.

Thirty SMEs fitting the above criteria participated in the research, fifteen in Western Australia and fifteen from Sydney, Melbourne, Brisbane, Adelaide and Tasmania.

3.9 Data Analysis

Following completion of the data collection, an in-depth analysis of the data was undertaken. Information sources such as interview transcripts, documents and websites are not in themselves data but are sources from which data must be interpreted by some form of analysis (Denzin & Lincoln, 1994). Therefore, as Patton (1990) suggests, the researcher must find key links were plausibility is established and analysis is conducted inductively (Patton, 1990).

Next, the content of the interviews was analysed. The aim of this analysis was to identify themes and patterns that reappear within or between interviews or focus group discussion. Further, the interview data was examined to provide verbatim
examples of participants' point of view. In this way the results present the participants' interpretation of events not the researchers.

The categories of the theoretical framework outlined in chapter two were used in the final report writing. The cases are discussed in chapter six in the context of the theoretical framework and the research questions of this study. The combination of data collected from the thirty case studies allowed for in-depth development of themes and patterns that emerged. When presenting the themes taken from the cases, the participants' words have been used to assist in keeping the participants voices as the focus.

3.10 Coding

All interviews were taped and transcribed by the researcher. All transcriptions from the Virtual Focus Groups were captured and saved electronically without editing or otherwise altering the data.

All transcripts were read to gain an overall feel for the interviews. A coding key was then devised to facilitate coding of the data and subsequent analysis. The transcribed data was coded by key words based on the research questions, secondary data sources, key words from Gable's (1989) 12-phase model of consultant engagement and Cragg's (1998) Internet Strategy components. The key words were grouped and analysed to determine whether any repetition or close relationships existed. In addition, the constant comparative method (Glaser & Strauss, 1967) was utilized to analyse the interview data. The steps involved were as follows:
Comparing incidents applicable to each category, incidents in the data were coded into as many categories of analysis as possible.

Integrating theoretical properties of the categories, a move from comparing incidents with other incidents to comparing incidents to the underlying principles of the categories.

Delimiting the theory, modifications to the coding categories decreased as more data was analysed.

Writing, in this phase the coding categories that had emerged from the data were described (Glaser & Strauss, 1967).

3.10.1 Verifying the data

During the data collection period, the researcher was conscious of not imposing her interpretations on the participants. During the interview process the researcher would ask questions of participants to verify the meaning of responses. In this way, a chain of corroborated evidence was built by linking information from diverse sources validated by the participants. The interview transcripts for both the one-to-one and focus groups were returned to participants for comment and validation.
3.10.2 *N*Vivo database software as a tool for storing, coding and managing the data

The *N*VIVO qualitative database software package (http://www.qsr.com.au) was used to facilitate the ease of data transcription, coding and cross-case analysis for this study. Computer software has increased the efficiency and thoroughness of coding data. It is now possible for researchers to indicate the boundaries of text segments, allowing quoting of interview responses, which can then be placed into categories and sub-categories for sorting, and allows themes and patterns to emerge. Using a computer program increases thoroughness in qualitative analysis and may lead to greater depth and consistency in exploring emergent themes and issues (Becker, 1984).

The interviews in this study were analysed with the use of *N*VIVO, as this program is capable of handling non-numerical and unstructured data by "supporting processes of indexing, searching and theorising" (Richards, 1999).

See Figure 3.3 below:
N*Vivo allowed the data to be coded either by word, sentence or paragraph and each unit of code was deemed a 'node'. A node is any part of the text or graphics within a transcript or document (Richards, 1999).

Interview transcripts could be created in any word processing software and saved as a Rich Text File (RTF) and exported directly into the N*Vivo database. For this study the transcripts were processed using Microsoft Word 97. Transcripts captured as computer log files from the Virtual Focus Groups were copied to MS Word 97 as plain text documents and also exported directly into the N*Vivo database. All transcripts were stored in N*vivo and coded within the database.
This study looked at issues in terms of consultant engagement, Internet strategy and strategic alignment. The coding schema used these categories and the research questions as the main coding nodes with several sub and related nodes across the main categories. The researcher was able to create nodes that were interrelated and hierarchically organised.

A strong advantage of N*Vivo over other text based qualitative data analysis software is its ability to code data by the word, sentence, partial sentence, paragraph or partial paragraph. The full meaning of data segments were captured and extraneous dialogue discarded.

The main categories of the coding schema allowed the researcher to create nodes that were interrelated and hierarchically organised and are presented in table 3.4 (for a full code listing see Appendix 4):

Each interview and focus group transcript was coded and stored in the N*Vivo database. One of the advantages of using data analysis software is the ability to store large amounts of data and the ability to search across data sets to identify themes and patterns in the data and to generate reports based on node searching (Richards, 1999). Figure 3.4, below, is a screen view of one section of the data set with the coding nodes in the right hand box.
Q.18 Do you feel the consultant could have improved the service?
Well, their service in setting up the site was pretty good, but once it was up they didn’t contact us for the updates and I’d send the information through, but it was as if they weren’t interested. The bloke’s gone now, out of business I reckon and that’s why the site is totally out of date and I’d like from you is some advice on how to plan the site and what I might include on it, how can I right market?

Q.19 How would you describe your relationship with your consultant?
Non-existent now, good in the beginning and poor after the initial setup.

Q.20 Who has responsibility for future updates of your site?
Nobody at the moment, we’re going to have to close down the entire site now, but we need some maintenance for the future, because otherwise it’s too time consuming. But for the new site I want don’t have the time.

According to the N*Vivo users guide, the database allows researchers to manage documents and ideas easily, rigorously and flexibly. It provides “a range of tools for handling rich data records...for browsing and enriching text...and for coding visually or at categories and gaining access to data swiftly and accurately” (Richards, 1999 p.4).

Once the data had been coded, N*Vivo allowed the researcher to generate reports about the data, including actual text segments. Reports generated included cross-referencing to other categories and nodes and assisted the identification of themes and patterns in the research.
This cross-referencing and report generation assisted in the creation of a meta-matrix as outlined by Miles and Huberman (Miles & M, 1994). The purpose of this method of analysis was to enable the data to be analysed visually. The data from all cases were easily compared and contrasted, and themes and patterns easily identified (Miles and Huberman, 1994). Miles and Huberman (1994) also suggest that the use of data management software assists in the creation of meta-matrices, the alternative of wall charts or index cards can tend to become somewhat unwieldy for large research studies.

For this study cross-referencing of nodes allowed easy comparison of data sets, for example an N*vivo report was generated to compare data on consultant engagement practices and consultant experience. With N*vivo it was possible to conduct Boolean searches using standard operators AND/OR/NOT. Using the OR operator would find data coded anywhere within the database whereas the AND operator would only find data if it was coded at more than one node. The use of Boolean searching allowed the researcher to conduct broad searches or carefully defined narrow cross-searches.

Each search result then created its own node within the coding categories and all searches were automatically saved in the database and easily retrieved for later analysis. Reports were then generated on any one or combination of coding nodes or search nodes and assisted in the analysis of the data. The ability to run searches on the data increased confirmation and support for emerging patterns and themes.
3.11 Inter-Rater Reliability

Inter-rater reliability was calculated using the formula outlined by Miles and Huberman (1994, p.64) whereby reliability equaled the number of agreements divided by the total number of agreements plus disagreements.

\[
\text{Inter-rater reliability} = \frac{\text{number of agreements}}{\text{total number of agreements + disagreements}}
\]

Miles and Huberman (1994) recommend an agreement rate of at least 80% initially and 90% overall to ensure the coding scheme is accurate. Two independent coders were engaged to review the data and coding categories so that subjective interpretation by the researcher was kept to a minimum.

3.12 Pilot Study

A pilot study was conducted prior to the main research in order to test and refine the interview questions “the pilot case study helps investigators to refine their data collection plans with respect to both the content of the data and the procedures to be followed” (Yin, 1994, p.74).

The pilot study was conducted by interviewing two Western Australian online SMEs who had contracted website design consultants to produce their sites. Both respondents were asked to respond to the questions and to identify those questions that were not clear. A brief discussion with the respondents gave the researcher a better idea of what they did not understand and assisted the
researcher in refining the interview questions prior to the main study. The pilot study is presented in chapter four.

3.13 Presentation of the findings

A method of reporting qualitative research results for multiple case studies recommended by Yin (1994) was to have no separate sections or chapters for individual cases, but to report results as descriptive cross-case analysis. “…the information from the individual cases would be dispersed throughout each chapter or section” (Yin p.135). Yin suggests that this facilitates a comparison of the cross-case results, produces a chain of evidence and allows pattern matching and themes to develop.

Miles and Huberman (1994) further suggest that cross-case analysis facilitates the development of sophisticated descriptions and more powerful explanations. The key factor in writing up qualitative research is “…[it] is not merely a major and lengthy task; it is intrinsic to the ‘analysis’ the ‘theory’ and the ‘findings’ “ ([Atkinson, p.164 #273].

Bogdan & Biklen highlight three common approaches to writing up research: a proposition put forward and argued; a theme or theory that emerges from the data; and a unit of a particular aspect being studies. (Bogdan & Biklen, 1992). One problem with writing up qualitative research is the sheer volume of data that is collected. This volume of data allows for 'thick description' (Denzin & Lincoln, 1994) and enhances the richness and sophistication of the findings. The researcher must ensure that the findings are presented succinctly to avoid overwhelming the reader, yet maintain credibility in research findings.
The research methodology for the project has been presented as a flow chart to enable a visual representation of the research plan (see Figure 3.5):

Methodology

Multiple case studies (Carroll et al, 1998; Rose, 1991; Stake, 1994; Yin, 1994)

Develop case protocol (Yin, 1994)

Select sample

Data collection

Conduct multiple cases

Triangulation (multiple data sources)

Analyse data meta-matrix (Miles & Huberman, 1994)

Interpret findings

3.5 Methodology flow chart
3.14 Summary

This chapter has described the epistemological and philosophical background to this study and the methods used to collect and analyse the data necessary to answer the main research questions. The research was conducted in a qualitative fashion, using an interpretivist approach and multiple case study analysis. This allowed the themes and patterns in the data to be identified. The various types of data collected were triangulated, SME interview data with focus group data and consultant interviews with secondary data, and this allowed multiple perspectives on the issues adding strength to the validity and reliability of the study.

N*Vivo qualitative data analysis software was used to facilitate the ease of data transcription, coding and cross-case analysis for this study.

Chapter four presents the findings of the Pilot Study.
4. PILOT STUDY

4. Introduction

A pilot study was conducted prior to the main research in order to test and refine the interview questions "the pilot case study helps investigators to refine their data collection plans with respect to both the content of the data and the procedures to be followed" (Yin, 1994, p.74). The purpose was to validate the research methods and refine the techniques to be used in the main study. The results and conclusions of the pilot study, and some of the implications for the main study, are detailed in this chapter.

The pilot study incorporated a case study of two Western Australian online SMEs who contracted website design consultants to produce their sites. The SMEs chosen were established retail businesses rather than start-ups as it was felt that established businesses would already have a general business plan or strategy. Both SMEs used the services of different website design consultants.

4.1 Pilot Sample

Initially the researcher scanned the client pages of five Western Australian website design consultants. From this several online SMEs were identified and their websites assessed based on the following model of website activities (see Table 4.1).
Table 4.1: Pilot study and Website activity model.

<table>
<thead>
<tr>
<th>Use of Site</th>
<th>SME One</th>
<th>SME Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Educational products supplier</td>
<td>Lingerie retailer</td>
</tr>
<tr>
<td>Promotion</td>
<td>email for client queries</td>
<td>email for client queries</td>
</tr>
<tr>
<td>E-transactions</td>
<td>site promoted for local, national &amp; international customers.</td>
<td>site promoted for local, national &amp; international customers.</td>
</tr>
<tr>
<td>online via email order form — products available in a variety of languages. Pre-payment is a requirement.</td>
<td>can order products via email order form, Prices are not included in catalogue.</td>
<td></td>
</tr>
</tbody>
</table>

The SMEs were chosen based on the following criteria:

♦ Retail business;
♦ Websites capable of electronic transactions;
♦ Website designed by an external consultant and
♦ Business located in Western Australia.

4.2 Background Information of Pilot SMEs

SME #1 was a supplier of educational products and had been in business for four years. The website was designed and implemented by an external consultant and went “live” in November 1998. Since May 1999 the website has been developed and maintained in-house.

SME #2 was a lingerie retailer and had been in business for two years. The site was designed and implemented by an external consultant and went “live” in May 1999 (a delay of three months from the expected date due to copyright errors).

The Owner/Manager intends to undertake a short course in HTML editing and
then further develop and maintain the site in-house. Table 4.2 summarizes the background information of the two pilot SMEs.

Table 4.2: Background Information of pilot SMEs

<table>
<thead>
<tr>
<th>SME</th>
<th>Founded</th>
<th>Staffing</th>
<th>Annual Turnover</th>
<th>Date website started</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME #1 Educational products supplier</td>
<td>1995</td>
<td>2 full-time 2 part-time</td>
<td>$200,000</td>
<td>November 1998</td>
</tr>
<tr>
<td>SME #2 Lingerie retailer</td>
<td>1997</td>
<td>1 full-time 2 part-time</td>
<td>not stated</td>
<td>May 1999</td>
</tr>
</tbody>
</table>

4.3 Results and Analysis of the pilot study

The data was analysed using a combination of Gable's 12-phase model for consultant engagement (1989) and Cragg's Internet Strategy components (1998).

Table 4.3 illustrates how closely the two SME cases adhered to the guiding principals of Gable’s 12-phase model for consultant engagement:

Table 4.3: Pilot SMEs and Gables (1989) 12-phase model

<table>
<thead>
<tr>
<th>Gable's 12-phase model</th>
<th>SME #1</th>
<th>SME #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. define the problem</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>2. evaluate internal resources available for the project</td>
<td>♢</td>
<td>♢</td>
</tr>
<tr>
<td>3. canvass the market for prospective consulting firms</td>
<td>◊</td>
<td></td>
</tr>
<tr>
<td>4. develop a request for proposal (RFP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. check references</td>
<td>◊</td>
<td></td>
</tr>
<tr>
<td>6. evaluate proposals</td>
<td>♦</td>
<td>♦</td>
</tr>
<tr>
<td>7. select a firm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. negotiate the contract</td>
<td>◊</td>
<td></td>
</tr>
<tr>
<td>9. announce the selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. continuing review and refinement of mutual and individual responsibilities</td>
<td>♦</td>
<td></td>
</tr>
<tr>
<td>11. continuing monitoring and control of progress</td>
<td></td>
<td>♦</td>
</tr>
<tr>
<td>12. post-engagement evaluation of the service</td>
<td>♦</td>
<td>♦</td>
</tr>
</tbody>
</table>

Legend: ♦ completed step
◊ partially completed step
Neither of the case SMEs utilized each of the steps in Gable's model (see Table 4.3). SME #1 completed six steps and partially completed two and SME #2 only completed four of the steps. Neither SME canvassed the market nor did they develop a request for proposal, although interestingly both SMEs stated that in hindsight they would have canvassed the market and asked for full quotations “...in hindsight I would have looked around more and found someone more capable and experienced....” Both SMEs relied on the recommendation of their Internet Service Provider (ISP), trusting that the ISP would know the market and make an appropriate recommendation.

SME #1 viewed the refereed sites suggested by the consultant, but did not contact the sites for either a verbal or written reference. SME #2 did not consider asking for references. Again, both SMEs stated that in hindsight they would have requested either verbal or written references from the consultants’ client sites.

Neither SME had a formal written contract with their consultants although SME #1 had negotiated a verbal contract in relation to pricing for the design of their site. A written contract outlining the roles of both parties, requirements for the sites, pricing, timeframes and contract variations would have been useful for both SMEs when engaging a website design consultant and this will be expanded on in the following discussion on pricing, service and consultant experience.
4.4 Issues arising in the pilot study

4.4.1 Pricing and service

In the analysis of the data, pricing and service were recurrent themes for both case SMEs and the importance of clarifying the role of consultant and client was very clearly highlighted. In both cases, it appeared that the SMEs passively trusted the consultant to produce results at minimal cost. Gable stated that the "misconceived view of the client role" (1991) is one of the prime reasons for the breakdown of the client/consultant relationship.

Both SMEs felt that they had been overcharged and did not receive value for money from their website design consultants. SME #1 had discussed a budget with the consultant and was unaware that changes to the site would incur additional charges "...but that's when the money came into it and it ended up costing for every little tiny change and that's until we got the bill and said 'hey this is much more than what you said', I told him we had a really strict budget and it was just blown right out..."

SME #2 linked pricing and service provision several times throughout the interview "...if I've got to constantly be telling them what to do I think paying $90 an hour is a bit ludicrous" and "I don't think I got value for money...basically I think they charged me an hourly rate for the work that they did, the fact that they had no ideas of their own should have been taken into account when billing me".

Interestingly, neither SME voiced their concerns with the consultants and as can be seen from the comment of SME #2 above, assumptions regarding billing were
made but not explicitly drawn to the consultant's attention to enable any potential rectification.

This lack of feedback from the client to the design consultant confirms Gable's (1991) statement. This is further highlighted in comments made by both SMEs in regard to a perceived lack of follow-up service provision. SME #1 "It was me contacting him rather than him coming out at the end and going through it and saying right this is it it's final and saying are you happy? It didn't close up at all." SME #2 "I haven't heard from them since May and it's now July..if it was me, you know, a week or two later I would have phoned and said 'how's it all going'."

4.4.2 Consultant Experience

One of the client concerns identified by Gable in his analysis of consultant engagement is that consultants often appear to have minimal relevant experience. He stated that this can be overcome if selection of a consultant were guided by his 12-phase model. The two case SMEs in this study lend support to this statement as they did not adhere strongly to the guidelines of Gable's model and very clearly felt that their consultants lacked essential experience.

For example, SME #2 believed their consultant was technically competent, but lacking in original ideas. "I don't think they have any ideas of their own. I think they are very good technically, but I don't think either artistically or marketing wise that they are particularly well clued up". SME #1 stated "We gave them our catalogue, we thought they'd come up with something wizzbang but they copied exactly what
we had done. We could have done that ourselves...they gave us the basis but that was all, there wasn't any extras...we fed them the ideas.”

The development and evaluation of a Request for Proposal (RFP), steps 4 and 6 in Gable’s model, may have clarified for the SMEs exactly what they were seeking from a website design consultant. In conjunction with the RFP, the preparation of a firm contract (step 8) may have assisted in circumventing these problems.

4.4.3 Internet Strategy

Neither of the SME’s had a formal written business plan or Internet strategy as suggested by Cragg (1998). Instead, both SMEs had entered the world of online retailing in a relatively adhoc manner. Both SMEs relied on ideas, memory and hopes for the future success of their sites. SME #1 had ongoing discussions between the partners of the firm to generate ideas and future plans based on their original goals of reaching an International market and increasing overall profits. SME #2 stated that they did not have a written plan “just ideas, obviously I’d like to develop it to other things”.

When interviewed, both pilot SMEs could verbally identify their primary and secondary goals, but were less clear in regard to content strategy. Both SMEs had future goals for their sites but had not formulated a structure for ensuring their ideas were captured, that plans and timeframes developed, or that future costs were identified.
SME #1 felt that they had achieved their first goal of reaching an International marketplace “We’re pleased with the response we’re getting from people all over the world”. Although they did not feel that they had achieved the second goal of increased profits “... the fact that we’re not getting any follow up is really disheartening, at the moment I wouldn’t rate it an economic success.” The procedure for ordering was complex. An initial inquiry had to be sent via email from the customer to the SME, then a catalogue was posted to the customer and at this point most of the transactions halted.

One of the company’s future goals was to incorporate shopping cart technology, an online catalogue and credit card ordering. SME #1 felt this would be an improvement in the websites capabilities and hoped an increase in actual orders from the site would follow. However, SME #1 also stated that the major use for content strategy was for promotion and they considered this an intangible measure of success.

SME #2 on the other hand felt strongly that they had not achieved their primary goal of establishing mail order, “sales off that have been minimal”. Yet their secondary goal of reaching a wider audience was seen as quite successful “we’ve had about 200 requests for catalogues off the site in two months which is pretty good, people are walking around with our catalogues.”

SME #2 also stated that they had achieved the contents strategy of marketing/promotion of the website. This was seen by SME #2 as an intangible measure of success and that economic success would follow once the website had been reassessed and redesigned internally.
4.5 Concluding statement of the pilot study

It was found that many factors affect the success of SMEs entering the world of online commerce and the pilot study focused on two possible factors. Firstly, consultant engagement for web design was investigated using Gable’s (1991) 12-phase model for consultant engagement, and secondly Internet strategies were explored using Cragg’s (1998) Internet strategy framework.

It was felt that prior to consultant engagement, a SME needs to have a clear idea of their Internet goals and the strategies required for achieving those goals as suggested by Cragg (1998). However, neither of the pilot case SMEs appeared aware of this concept. Although both SMEs could identify their primary, secondary and content goals verbally, both relied on ideas, memory and hopes for the future success of their online venture.

Neither SME had allocated an ongoing budget for future maintenance and development of the sites nor had they clearly articulated or formalized future aims, identified time-frames or developed clear strategies for achieving any of these objectives.

The analysis of the pilot interview data showed that Gable’s (1991) 12-phase model for consultant engagement was a worthwhile tool for evaluating SME involvement in engaging external consultants to design their website. One aspect of this model that was found to be particularly useful was its potential for clarifying the mutual roles and obligations of the client/consultant relationship.

The findings from the two pilot case studies indicated that neither SME felt that their individual business needs were understood nor met by the website design
consultants. In fact the SMEs themselves appeared unable to articulate their own business needs.

These findings indicate that SMEs outsourcing their website design and implementation are implicitly outsourcing the strategic management of the project. This has helped the researcher in restructuring the interview schedule to include additional questions in regard to strategic goals and management and expectations of consultant engagement processes.

The data and results from the pilot study have been used to refine and develop the data collection, procedures and theory development for the main study.

4.6 Implications for the main research study

In view of the findings of the pilot study it was decided to undertake a much more extensive investigation of Australian small and medium enterprises and website design consultants. It was believed that the findings of the broader investigation might lead to understanding what explicit e-business strategies SMEs employ prior to development of a website. This in turn is expected to lead to the development of a tool that will enable the successful implementation of online business to consumer strategies for SMEs.

The main study will incorporate interviews and virtual focus groups as data collection methods along with analysis of secondary sources as outlined in chapter three. Both SMEs and consultants will be interviewed to gain a broad perspective of the issues and to ensure effective triangulation of data sources.
The intent of the virtual focus groups was to verify the in-depth interview results, strengthen the theoretical framework and to collect information from SMEs nationally. The nature of focus groups as discussed in chapter three, offer a different perspective in data collection methods. It was considered that the interaction of participants in the focus groups may add additional and useful insight into the phenomena under study, which may have not been apparent in one-to-one interviews.

To locate participants for the study, five Internet directory sites were reviewed:

aussie.com.au;

perthwa.com.au;

webwombat.com.au;

www.sydney.directory.citysearch.com.au; and


The Internet directory sites were chosen as representing the top five Australian Internet directories identified by the University of NSW (University, 2001). Consultant websites listed within the directories were examined to identify website design consultants that fit the research criteria for this study.

The criteria identified consultants as those who claimed to offer a complete solution for the SME venture into business to consumer electronic commerce. The consultants website claims suggested they could offer the case SMEs e-business strategic management, website design, hosting and marketing advice. Twenty
consultancies fit the above criteria and the SMEs listed on their websites as clients were approached to participate in this study. In total 250 online SMEs were identified, 80 within Western Australia and 170 in other states of Australia.

It was decided that thirty SMEs would be selected for the study, fifteen in Western Australia and fifteen from other states of Australia. Thirty was considered an optimum number for a qualitative research sample. DePaulo (2000) suggests that a qualitative sample size of N=30 can be considered useful to reveal the full range of potentially important participant perceptions. DePaulo (2000) further suggests that an N=30 sample size reduces the probability of missing a perception to less than 5 percent (p.5).

In keeping with the case study format, the participants were asked not only to state the facts of the matter but also to provide opinions about events (Yin, 1994: 84). Semi-structured interviews using mainly open-ended questions were used to allow the participants the opportunity to fully explore the issues under question. The interview schedule was developed with questions based on the main topics of the research.

4.7 Summary

This chapter has described the design and findings of a pilot study that was developed to validate the research methods and refine the techniques to be used in the main study. The pilot study incorporated a case study of two Western Australian online SMEs who contracted website design consultants to produce their sites. The results and conclusions of the pilot study, and some of the
implications for the main study, were detailed in this chapter. Chapter five presents the results and preliminary analysis of the main study.
5. Results and Preliminary Analysis - Interviews and Focus Groups

5.0 Introduction

This chapter presents the results of the data analysis of the interviews and focus groups. Firstly, background information of the case SMEs will be presented as descriptive statistics. Secondly, the SMEs will be ranked in relation to the Electronic Commerce Website Activity Model (ECWAM) as outlined in chapter two. Finally, the data from the in-depth interviews and focus groups will be presented using Gable's 12-phase model of consultant engagement and Cragg's Internet Strategy model.

This study follows the Interpretivist paradigm, whereby the goal is to describe meanings, understand participants' definitions of the situation and examine how objective realities are produced. Interpretive research is fundamentally concerned with meaning and it seeks to understand participants' definition of a situation (Schwandt, 1994). Further, the interpretivist paradigm requires the researcher to allow the participants' meaning to be heard and therefore the results of the interview and focus group data is presented with participants' meanings and interpretations shown through the interview question responses. Gephart (1999) suggests that central to interpretivist studies is the concept of subjective meanings, "how individuals or members of society or an organisation apprehend, understand and make sense of events and settings (the idea of interpretation) and
how this sensemaking produces features of the very settings to which sensemaking is responsive (the concern for reflexivity)" (Gephart, 1999 p.23).

This study sought to understand the participants' perspective as a critical element in the interpretivist paradigm. It is this understanding in situated contexts that allows access to contextual issues that are important to consider in an holistic interpretivist research study. Therefore, verbatim quotes from the respondents are presented as an integral part of the research results, allowing the participants to speak for themselves.

In the final chapter, the research findings presented in this chapter are further analysed for meaning, discussed and conclusions drawn.

5.1 N*Vivo as a data analysis tool

This study looked at issues in terms of consultant engagement, Internet strategy and strategic alignment. The coding schema used these categories and the research questions as the main coding nodes with several sub and related nodes across the main categories. The researcher was able to create nodes that were interrelated and hierarchically organised.

A strong advantage of N*Vivo over other text based qualitative data analysis software is its ability to code data by the word, sentence, partial sentence, paragraph or partial paragraph. The full meaning of data segments were captured and extraneous dialogue discarded.

The main categories of the coding schema allowed the researcher to create nodes that were interrelated and hierarchically organized.
Each interview and focus group transcript was coded and stored in the N*Vivo database. One of the advantages of using data analysis software was the ability to store large amounts of data and the ability to search across data sets to identify themes and patterns in the data and to generate reports based on node searching (Richards, 1999). Figure 5.0, below, is a screen view of one section of the data set with the coding nodes in the right hand box.
Q.18 Do you feel the consultant could have improved the service?

Well, their service in setting up the site was pretty good, but once it was up they didn't contact us for the updates and I'd send the information through, but it was as if they weren't interested. The bloke's gone now, out of business I reckon and that's why the site is totally out of date and I'd like from you some advice on how to plan the site and what I might include on it, how can I right market?

Q.19 How would you describe your relationship with your consultant?

Non-existent now, good in the beginning and poor after the initial setup.

Q.20 Who has responsibility for future updates of your site?

Nobody at the moment, we're going to have to close down the entire site now, but we need some maintenance for the future, because otherwise it's too time consuming. But for the new site I want don't have the time.

According to the N*Vivo manual, the database allows researchers to manage documents and ideas easily, rigorously and flexibly. It provides "a range of tools for handling rich data records...for browsing and enriching text...and for coding visually or at categories and gaining access to data swiftly and accurately" (Richards, 1999 p.4).
Once the data had been coded, N*Vivo allowed the researcher to generate reports about the data, including actual text segments. Reports generated included cross-referencing to other categories and nodes and assisted the identification of themes and patterns in the research.

This cross-referencing and report generation assisted in the creation of a meta-matrix as outlined by Miles and Huberman (Miles & M, 1994). The purpose of this method of analysis was to enable the data to be analysed visually. The data from all cases were easily compared and contrasted, and themes and patterns easily identified (Miles and Huberman, 1994). Miles and Huberman (1994) also suggest that the use of data management software assists in the creation of meta-matrices, the alternative of wall charts or index cards can tend to become somewhat unwieldy for large research studies.

For this study cross-referencing of nodes allowed easy comparison of data sets, for example an N*vivo report was generated to compare data on consultant engagement practices and consultant experience. With N*vivo it was possible to conduct Boolean searches using standard operators AND/OR/NOT. Using the OR operator would find data coded anywhere within the database whereas the AND operator would only find data if it was coded at more than one node. The use of Boolean searching allowed the researcher to conduct broad searches or carefully defined narrow cross-searches.

Each search result then created its own node within the coding categories and all searches were automatically saved in the database and easily retrieved for later analysis. Reports were then generated on any one or combination of coding
nodes or search nodes and assisted in the analysis of the data. The ability to run searches on the data increased confirmation and support for emerging patterns and themes.

The major themes and patterns identified in this study include the following:

*Planning

*Strategy

*Consultant engagement issues
  
  Consultant experience/expertise

  Client/consultant relationship

*Financial costs/budgeting

*Electronic commerce success and failure.

One of the advantages of using the N*Vivo software package for qualitative analysis was the ability to run continual checks and cross-checks on the data to get confirmation and additional support for emerging themes and patterns. Cross-checking was used to ensure that the emerging themes and patterns were not being gleaned from one-off or strong statements but rather were themes and patterns that appeared across multiple interviews.

N*Vivo assisted in the production of a coding scheme that allowed the emerging themes and patterns to be clearly identified. The coding scheme then had to be organized and consolidated so that it did not overwhelm the researcher by creating too many or extraneous categories. Efforts were made in this study to
create a coding schema that resulted in the greatest understanding of the emerging findings of the study.

5.2 Descriptive Analysis

To gain a clear understanding of the data and the nature of the sample population, descriptive statistics were collated. These included characteristics of the SMEs, data relating to the implementation of the SME websites and data relating to the consultants. The mean average method was used to calculate percentages. All results are expressed as a percentage to facilitate comparisons across the data sets.

\[
\text{number of responses} \times 100 \quad \text{total number of responses}
\]

5.2.1 Characteristics of the Case SMEs

Table 5.1 Case SMEs – Background Information

<table>
<thead>
<tr>
<th>Length of time in business</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>0</td>
</tr>
<tr>
<td>1-2 years</td>
<td>4</td>
</tr>
<tr>
<td>3-5 years</td>
<td>11</td>
</tr>
<tr>
<td>6-10 years</td>
<td>2</td>
</tr>
<tr>
<td>10-20 years</td>
<td>5</td>
</tr>
<tr>
<td>20-50 years</td>
<td>8</td>
</tr>
</tbody>
</table>

The majority, (86%) of the SMEs were established businesses and eight SMEs established between 20 and 50 years ago (see Table 5.1 above). The number of
new businesses, in operation for less than two years was small (13%), with the highest number falling within the three to five year range (36%). This finding is consistent with ABS (1999) data that found 55% of Australian small businesses had been in operation at least five years.

Table 5.2 Business Type

<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail store</td>
<td>25</td>
</tr>
<tr>
<td>Service</td>
<td>3</td>
</tr>
<tr>
<td>Food &amp; beverages</td>
<td>2</td>
</tr>
</tbody>
</table>

The majority (83%) of the SMEs were retail stores with 10% in the service industry and 6% in the food industry (see Table 5.2 above). This is an expected result as the thrust of the research for this study was on business to consumer electronic commerce, therefore retailers were the primary SME category.

Half of the businesses were located in Western Australia and the other half in other states of Australia. This was to be expected as the in-depth interviews were conducted with local businesses and the virtual focus groups with Interstate respondents, as can be seen in Table 5.3.

Table 5.3 Geographic distribution of businesses

<table>
<thead>
<tr>
<th>Location</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Australia</td>
<td>15</td>
</tr>
<tr>
<td>New South Wales</td>
<td>3</td>
</tr>
<tr>
<td>Victoria</td>
<td>5</td>
</tr>
<tr>
<td>South Australia</td>
<td>3</td>
</tr>
<tr>
<td>Queensland</td>
<td>3</td>
</tr>
<tr>
<td>Tasmania</td>
<td>1</td>
</tr>
</tbody>
</table>
Only 10% of the SMEs employed no staff, whilst 40% employed 1-5 staff.

Owner/Operator only SMEs and those with up to five employees are classified as micro businesses (ABS, 2000a) and half of the businesses belonged to this category. Table 5.4 summarises the SMEs employment profile.

Table 5.4 SME Employment profile

<table>
<thead>
<tr>
<th>Number of employees</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1-5</td>
<td>12</td>
</tr>
<tr>
<td>6-10</td>
<td>4</td>
</tr>
<tr>
<td>11-19</td>
<td>4</td>
</tr>
<tr>
<td>&gt;20</td>
<td>7</td>
</tr>
</tbody>
</table>

Three of the SMEs were owner/operators and sole proprietors. Twenty were private companies and seven were partnerships. The majority of owners considered their business a form of self-employment, which is consistent with DIST (1995) findings that many small business owner/operators start businesses as an alternative to being employed as waged labour.

The majority (73%) of SMEs owner/operators were responsible for initiating and implementing the websites, whilst three SMEs in the medium category had an IT Manager and five SMEs delegated the task to a lower level Manager (see Table 5.5 for the breakdown).

Table 5.5 SME staff responsible for website initiation & implementation

<table>
<thead>
<tr>
<th>Employment Classification</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner/Operator</td>
<td>22</td>
</tr>
<tr>
<td>IT Manager</td>
<td>3</td>
</tr>
</tbody>
</table>
Interestingly, 43% of the SMEs felt the need to increase their staffing level to cater for the implementation of their websites, a summary of this employment increase is seen in table 5.6.

Table 5.6 Employment increase

<table>
<thead>
<tr>
<th>Additional staff employed</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>.5 FTE*</td>
<td>7</td>
</tr>
<tr>
<td>1 FTE</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>30</td>
</tr>
</tbody>
</table>

*Legend FTE = Full time Equivalent or part thereof

Table 5.7 Website start dates

<table>
<thead>
<tr>
<th>Date/Year</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>2</td>
</tr>
<tr>
<td>1997</td>
<td>3</td>
</tr>
<tr>
<td>1998</td>
<td>6</td>
</tr>
<tr>
<td>1999</td>
<td>10</td>
</tr>
<tr>
<td>2000</td>
<td>8</td>
</tr>
<tr>
<td>2001</td>
<td>1</td>
</tr>
</tbody>
</table>

63% of the respondents had started their websites within the three years prior to this study and only 37% between 1996 and 1998. This is not surprising as business to consumer electronic commerce only really began with the introduction of the World Wide Web in the early to mid 1990’s.
The cost of building the websites ranged from $300 to $42,000 (see Table 5.8). One SME had his website built for free on the proviso that he took out an ongoing maintenance contract for $150 per month. This broad range in costs is to be expected as the sites vary in levels of functionality, sophistication and technological innovation. The equipment costs were directly related to the implementation of respondent’s websites and electronic commerce. The majority of the SMEs had not anticipated the total costs involved and were unprepared for the final bill. This had a strong negative impact on thirteen of the SMEs as they were not able to allocate additional funds to manage and update the sites. Three respondents declined to state the cost of building their website (see Table 5.8 below):
### Table 5.8 Website Costs

<table>
<thead>
<tr>
<th>SME</th>
<th>Equipment costs</th>
<th>Website costs</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$20,000</td>
<td>$4,800</td>
<td>N</td>
</tr>
<tr>
<td>2</td>
<td>$10,000</td>
<td>$10,000</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>$0</td>
<td>$300</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>$5,500</td>
<td>$42,000</td>
<td>$250/month</td>
</tr>
<tr>
<td>5</td>
<td>$500</td>
<td>$2,500</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>$0</td>
<td>$15,000</td>
<td>N</td>
</tr>
<tr>
<td>7</td>
<td>$3,000</td>
<td>not stated</td>
<td>N</td>
</tr>
<tr>
<td>8</td>
<td>$0</td>
<td>$900</td>
<td>N</td>
</tr>
<tr>
<td>9</td>
<td>$4,000</td>
<td>not stated</td>
<td>not stated</td>
</tr>
<tr>
<td>10</td>
<td>$0</td>
<td>$9,500</td>
<td>N</td>
</tr>
<tr>
<td>11</td>
<td>$0</td>
<td>$0</td>
<td>$150/month</td>
</tr>
<tr>
<td>12</td>
<td>$0</td>
<td>$5,000</td>
<td>$90/month</td>
</tr>
<tr>
<td>13</td>
<td>$0</td>
<td>$6,000</td>
<td>N</td>
</tr>
<tr>
<td>14</td>
<td>$0</td>
<td>$4,500</td>
<td>N</td>
</tr>
<tr>
<td>15</td>
<td>$0</td>
<td>$3,000</td>
<td>N</td>
</tr>
<tr>
<td>16</td>
<td>$0</td>
<td>$2,000</td>
<td>N</td>
</tr>
<tr>
<td>17</td>
<td>$375</td>
<td>not stated</td>
<td>$100/month</td>
</tr>
<tr>
<td>18</td>
<td>$0</td>
<td>$12,000</td>
<td>N</td>
</tr>
<tr>
<td>19</td>
<td>$0</td>
<td>$10,000</td>
<td>N</td>
</tr>
<tr>
<td>20</td>
<td>$5,000</td>
<td>$3,000</td>
<td>N</td>
</tr>
<tr>
<td>21</td>
<td>$0</td>
<td>$2,500</td>
<td>N</td>
</tr>
<tr>
<td>22</td>
<td>$0</td>
<td>$4,000</td>
<td>$150/month</td>
</tr>
<tr>
<td>23</td>
<td>$0</td>
<td>$2,500</td>
<td>N</td>
</tr>
<tr>
<td>24</td>
<td>$0</td>
<td>$8,000</td>
<td>N</td>
</tr>
<tr>
<td>25</td>
<td>$3,500</td>
<td>$12,000</td>
<td>$100/month</td>
</tr>
<tr>
<td>26</td>
<td>$0</td>
<td>$2,000</td>
<td>N</td>
</tr>
<tr>
<td>27</td>
<td>$0</td>
<td>$5,500</td>
<td>ad hoc</td>
</tr>
<tr>
<td>28</td>
<td>$5,000</td>
<td>$2,000</td>
<td>N</td>
</tr>
<tr>
<td>29</td>
<td>$0</td>
<td>$4,000</td>
<td>N</td>
</tr>
<tr>
<td>30</td>
<td>$0</td>
<td>$14,000</td>
<td>N</td>
</tr>
</tbody>
</table>
Only seven of the SMEs had allocated ongoing funds for maintenance of the websites, one declined to comment and one managed *ad hoc* updating when financially possible. The remaining 21 respondents had neither allocated nor allowed for website maintenance in their budget. The consequences included respondent’s inability to update their sites.

Questions were also asked in relation to customer increase directly related to the website and how these increases were measured. Table 5.9 summarises this increase.
Table 5.9 Increase in customers directly related to the website

<table>
<thead>
<tr>
<th>SME</th>
<th>Increase in customers</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>direct sales, customer inquiries,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>repeat customers</td>
</tr>
<tr>
<td>2</td>
<td>Y</td>
<td>customer inquiries</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Y</td>
<td>direct sales, customer inquiries,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>repeat customers</td>
</tr>
<tr>
<td>5</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>7</td>
<td>Y</td>
<td>site counter</td>
</tr>
<tr>
<td>8</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Y</td>
<td>inquiries, site counter</td>
</tr>
<tr>
<td>10</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>11</td>
<td>Y</td>
<td>direct sales, inquiries, site</td>
</tr>
<tr>
<td></td>
<td></td>
<td>counter</td>
</tr>
<tr>
<td>12</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>13</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Y</td>
<td>inquiries</td>
</tr>
<tr>
<td>15</td>
<td>Y</td>
<td>direct sales</td>
</tr>
<tr>
<td>16</td>
<td>Y</td>
<td>site counter</td>
</tr>
<tr>
<td>17</td>
<td>Y</td>
<td>direct sales, inquiries, repeat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>customers</td>
</tr>
<tr>
<td>18</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>19</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>21</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Y</td>
<td>direct sales</td>
</tr>
<tr>
<td>23</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>25</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
<tr>
<td>26</td>
<td>Y</td>
<td>inquiries</td>
</tr>
<tr>
<td>27</td>
<td>Y</td>
<td>direct sales</td>
</tr>
<tr>
<td>28</td>
<td>Y</td>
<td>inquiries</td>
</tr>
<tr>
<td>29</td>
<td>Y</td>
<td>direct sales</td>
</tr>
<tr>
<td>30</td>
<td>Y</td>
<td>direct sales, inquiries</td>
</tr>
</tbody>
</table>
23% of respondents had not had an increase in their customer base with the implementation of electronic commerce. 13% of the SMEs felt they had an increase in customers based on inquiries received via their websites and 7% measured customer increase by the hit rate on their website counters. The remaining 57% of respondents measured customer increase by direct sales from their websites.

The SMEs were also asked about sales turnover increases directly related to their website customers, summarised in Table 5.10.

<table>
<thead>
<tr>
<th>SME</th>
<th>Sales turnover increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>7</td>
<td>1%</td>
</tr>
<tr>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>9</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>11</td>
<td>10%</td>
</tr>
<tr>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>13</td>
<td>1%</td>
</tr>
<tr>
<td>14</td>
<td>0%</td>
</tr>
<tr>
<td>15</td>
<td>3%</td>
</tr>
<tr>
<td>16</td>
<td>0%</td>
</tr>
<tr>
<td>17</td>
<td>3%</td>
</tr>
<tr>
<td>18</td>
<td>2%</td>
</tr>
<tr>
<td>19</td>
<td>0%</td>
</tr>
<tr>
<td>20</td>
<td>2%</td>
</tr>
<tr>
<td>21</td>
<td>0%</td>
</tr>
<tr>
<td>22</td>
<td>1%</td>
</tr>
<tr>
<td>23</td>
<td>0%</td>
</tr>
<tr>
<td>24</td>
<td>20%</td>
</tr>
<tr>
<td>25</td>
<td>20%</td>
</tr>
<tr>
<td>26</td>
<td>0%</td>
</tr>
<tr>
<td>27</td>
<td>5%</td>
</tr>
<tr>
<td>28</td>
<td>0%</td>
</tr>
<tr>
<td>29</td>
<td>10%</td>
</tr>
<tr>
<td>30</td>
<td>3%</td>
</tr>
</tbody>
</table>
Ten respondents had 0% increase in their sales turnover, with the remaining twenty having increases from 1% to 30%. These figures are considered of interest as sales increases, directly attributed to electronic commerce, can be seen as a clear economic measure of success. The qualification must be stated that it is difficult to translate these figures into actual dollar amounts as the SMEs were reluctant to reveal any information on their actual annual turnover. Therefore, these figures cannot be said to indicate anything of great significance. Further analysis of electronic commerce success factors will be discussed later in this chapter and will include an analysis of intangible measures alongside tangible measures.

Respondents were also asked to give a percentage breakdown of the location of their website customers, summarised in table 5.11.
Table 5.11 Location of website customers

<table>
<thead>
<tr>
<th>SME</th>
<th>Local(WA)</th>
<th>Regional</th>
<th>Interstate</th>
<th>Europe</th>
<th>USA</th>
<th>Asia/ Other</th>
<th>Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>2</td>
<td>50%</td>
<td>15%</td>
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<td>20%</td>
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<td>4</td>
<td>50%</td>
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<td>40%</td>
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<td>6</td>
<td>80%</td>
<td>20%</td>
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<td>7</td>
<td>60%</td>
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<td>10%</td>
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<td>8</td>
<td>100%</td>
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<td>10%</td>
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<tr>
<td>11</td>
<td>70%</td>
<td>10%</td>
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<td>20%</td>
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<td>12</td>
<td>100%</td>
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<tr>
<td>13</td>
<td>95%</td>
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<td>5%</td>
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<tr>
<td>17</td>
<td>70%</td>
<td>10%</td>
<td>5%</td>
<td>5%</td>
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<td>5%</td>
<td>5%</td>
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<tr>
<td>18</td>
<td>100%</td>
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<td>19</td>
<td>100%</td>
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<td>20</td>
<td>100%</td>
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<td>100%</td>
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<td>23</td>
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<tr>
<td>24</td>
<td>100%</td>
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<tr>
<td>25</td>
<td>80%</td>
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<td>20%</td>
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<td>26</td>
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<tr>
<td>27</td>
<td>100%</td>
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<tr>
<td>28</td>
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<td>-</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>30</td>
<td>100%</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Ten of the respondents stated that they had reached a new customer base through the use of their websites, particularly in the Asia/Pacific region.
The following table (5.12) outlines how the SMEs located their consultants:

<table>
<thead>
<tr>
<th>Method of choosing website designer</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Service Provider (ISP)</td>
<td>7</td>
</tr>
<tr>
<td>Business Associate/Colleague</td>
<td>5</td>
</tr>
<tr>
<td>Friend/relative</td>
<td>5</td>
</tr>
<tr>
<td>Consultant approach (cold calling)</td>
<td>5</td>
</tr>
<tr>
<td>Marketing Agency</td>
<td>1</td>
</tr>
<tr>
<td>Yellow Pages (telephone directory)</td>
<td>3</td>
</tr>
<tr>
<td>Request for Proposal</td>
<td>1</td>
</tr>
<tr>
<td>Psychic</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
</tr>
</tbody>
</table>

57% of the SMEs relied on recommendations from friends, relatives, colleagues or their ISP, trusting that the recommendations were appropriate. Only one SME developed a request for proposal and obtained several quotes. 17% of the SMEs were approached by unknown consultants calling and touting for business. 10% consulted the local telephone directory and 7% could not remember where or how they had located their consultants.

5.3 Background Information: Consultants

Descriptive statistics were also collated for the consultants interviewed for this study and are outlined in the following section.

5.3.1 Consultant characteristics

One of the client concerns identified by Gable (1991) in his analysis of consultant engagement is that consultants often appeared to have minimal relevant experience. The background of the five consultants involved in the site designs of the case SMEs is shown in Table 5.13. All of the consultants explicitly stated...
strategic management skills of some kind and emphasised project management skills.

Table 5.13 Consultant Background Information

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Founded</th>
<th>Staffing</th>
<th>Services (other than web design)</th>
<th>Date website started</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>1996</td>
<td>35-40</td>
<td>Business Strategy</td>
<td>1997</td>
</tr>
<tr>
<td>#2</td>
<td>2000</td>
<td>6</td>
<td>e-commerce strategy</td>
<td>2000</td>
</tr>
<tr>
<td>#3</td>
<td>1997</td>
<td>3</td>
<td>Strategic management</td>
<td>1997</td>
</tr>
<tr>
<td>#4</td>
<td>1998</td>
<td>4</td>
<td>Strategic management</td>
<td>1998</td>
</tr>
<tr>
<td>#5</td>
<td>2000</td>
<td>6</td>
<td>Business management</td>
<td>2000</td>
</tr>
</tbody>
</table>

The five consultants were also SMEs, four in the micro/small category and one a medium sized enterprise. All five were relative newcomers to the consultancy business. The oldest company was established in 1996 and all five considered website design and strategic management as core business.

Pricing was generally found to be an informal process and where hourly rates were used, no predefined maximum hours were agreed between the client and consultants (see Table 5.14 below):

Table 5.14 Pricing Schedule

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Pricing Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>milestones – 20% initially; 25% test site; 30% site completion; 25% site live.</td>
</tr>
<tr>
<td>#2</td>
<td>set rate – based on project timeframe &amp; tasks</td>
</tr>
<tr>
<td>#3</td>
<td>hourly rate</td>
</tr>
<tr>
<td>#4</td>
<td>hourly rate</td>
</tr>
<tr>
<td>#5</td>
<td>hourly rate</td>
</tr>
</tbody>
</table>

The consultants were also questioned in regard to their method of locating clients (see Table 5.15 below). Of the five consultants, only one admitted to 'cold calling'
SMEs via telemarketing using telephone and business directories. The rest obtained their clients through referrals or direct approaches from the SMEs. Two of the consultants offered rewards for referrals from current clients.

Table 5.15 Where consultants located potential clients.

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Method of locating SMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>SMEs find consultant through referrals; relationships (business &amp; informal)</td>
</tr>
<tr>
<td>#2</td>
<td>Through consultant website &amp; referrals from current clients (consultant offers 'rewards' for referrals); consultant 'cold calls' SMEs via telemarketing using telephone white pages and yellow pages;</td>
</tr>
<tr>
<td>#3</td>
<td>Recommendations from ISP &amp; current clients (consultant offers incentive to clients for referrals)</td>
</tr>
<tr>
<td>#4</td>
<td>SMEs locate consultant through website.</td>
</tr>
<tr>
<td>#5</td>
<td>Referrals from Industry Associations; business colleagues &amp; web developers directory</td>
</tr>
</tbody>
</table>

5.4 Electronic Commerce Website Activity Model

As outlined in Chapter Two an Electronic Commerce Website Activity Model (ECWAM) was developed and applied to the websites of the SMEs included in this study to identify and analyse their electronic commerce activities. The ECWAM was used to assess the actual use of the website by the case SMEs as opposed to Cragg's (1998) Internet strategy model which sought to identify the intentions for initiating a website. The distinction between the two models is made, as intention for use can be fundamentally different from actual use. Therefore, although the two models may appear to have a superficial similarity, their use in this study is intrinsically different in meaning.
The ECWAM identified four categories of electronic commerce activities conducted by the SMEs including Communication, Research, Promotion and Electronic Transactions. The results are presented in Table 5.16 below:

<table>
<thead>
<tr>
<th>SME</th>
<th>Communication</th>
<th>Research</th>
<th>Promotion</th>
<th>E-transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>email for client queries</td>
<td>research not conducted</td>
<td>local, national &amp; international customers</td>
<td>order online via email form – products available in a variety of languages. Pre-payment req.</td>
</tr>
<tr>
<td>#2</td>
<td>email phone fax address</td>
<td>information seeking</td>
<td>local, national &amp; international customers</td>
<td>order products via email order form. Prices not included in catalogue.</td>
</tr>
<tr>
<td>#3</td>
<td>email</td>
<td>tender information</td>
<td>local, national &amp; international customers</td>
<td>full secure electronic transactions (SET) via shopping cart, credit card enabled.</td>
</tr>
<tr>
<td>#4</td>
<td>email ; online newsletter &amp; calendar of events</td>
<td>not conducted</td>
<td>local, national &amp; international customers</td>
<td>Searchable database of music. Orders placed via a SET Server using credit card or International money order. Currency converter incl.</td>
</tr>
<tr>
<td>#5</td>
<td>email fax address</td>
<td>not conducted</td>
<td>local, national &amp; international customers</td>
<td>Product catalogue with email/fax back order information.</td>
</tr>
<tr>
<td>#6</td>
<td>email newsletter, address</td>
<td>not conducted</td>
<td>local &amp; national customers</td>
<td>Searchable database of makes &amp; models – links to car manufacturers.</td>
</tr>
<tr>
<td>#7</td>
<td>email, phone number address</td>
<td>seeking product information</td>
<td>local &amp; national customers</td>
<td>Searchable database – secure online e-transactions via credit card</td>
</tr>
<tr>
<td>#8</td>
<td>email / newsletter (subscription only) for clients address</td>
<td>comparing websites</td>
<td>local, national &amp; international customers</td>
<td>online catalogue, secure online e-transactions via credit card</td>
</tr>
<tr>
<td>#9</td>
<td>email, phone number fax</td>
<td>information seeking</td>
<td>local &amp; national customers</td>
<td>online catalogue, secure online e-transactions via credit card</td>
</tr>
<tr>
<td>#10</td>
<td>email, mailing list, calendar of events</td>
<td>not conducted</td>
<td>local customers.</td>
<td>information of products &amp; services, special offers, email/fax back forms for purchases.</td>
</tr>
<tr>
<td>#11</td>
<td>email, address</td>
<td>seeking product comparisons</td>
<td>local &amp; national</td>
<td>online catalogue SET online &amp; credit card facilities</td>
</tr>
<tr>
<td>12</td>
<td>email, phone</td>
<td>comparing websites</td>
<td>local &amp; national</td>
<td>online catalogue, phone to arrange</td>
</tr>
<tr>
<td>fax</td>
<td>comparing websites</td>
<td>local &amp; international</td>
<td>online catalogue, SET</td>
<td>payment</td>
</tr>
<tr>
<td>------------</td>
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<td>-----------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>email fax</td>
<td></td>
<td></td>
<td></td>
<td>fax orders – credit card details, not secure</td>
</tr>
<tr>
<td>email fax</td>
<td>research not conducted</td>
<td>national &amp; international</td>
<td></td>
<td>email or fax order C.O.D.</td>
</tr>
<tr>
<td>email fax</td>
<td>product/price comparisons</td>
<td>local &amp; national</td>
<td>email enquiry form</td>
<td>fax order form</td>
</tr>
<tr>
<td>email fax</td>
<td>research not conducted</td>
<td>local &amp; national</td>
<td>email enquiry form</td>
<td>fax order form – credit card details</td>
</tr>
<tr>
<td>email fax</td>
<td>information seeking</td>
<td>national &amp; international</td>
<td>SET – credit cards – currency converter online catalogue</td>
<td>fax order form</td>
</tr>
<tr>
<td>email newsletter</td>
<td>not conducted</td>
<td>local &amp; national</td>
<td>email enquiry form</td>
<td>SET – credit card facility</td>
</tr>
<tr>
<td>email address</td>
<td>website comparison</td>
<td>local, regional</td>
<td>email order form</td>
<td>fax order form</td>
</tr>
<tr>
<td>email phone address</td>
<td>not conducted</td>
<td>national &amp; international</td>
<td>fax order form</td>
<td>fax order form</td>
</tr>
<tr>
<td>email fax address</td>
<td>not conducted</td>
<td>international</td>
<td>fax order form</td>
<td>fax order form</td>
</tr>
<tr>
<td>email phone address</td>
<td>information seeking, price comparisons</td>
<td>national &amp; international</td>
<td>email &amp; fax order form</td>
<td>email order form SET – credit card facility</td>
</tr>
<tr>
<td>email newsletter</td>
<td>not conducted</td>
<td>international</td>
<td>email order form</td>
<td>email order form SET – credit card facility</td>
</tr>
<tr>
<td>email phone address</td>
<td>website comparison</td>
<td>local &amp; international</td>
<td>fax order form – currency converter</td>
<td>fax order form</td>
</tr>
<tr>
<td>email phone address</td>
<td>not conducted</td>
<td>local &amp; national</td>
<td>fax order form</td>
<td>fax order form</td>
</tr>
<tr>
<td>email address</td>
<td>information seeking</td>
<td>local &amp; national</td>
<td>email or fax order form</td>
<td>email order form</td>
</tr>
<tr>
<td>email phone address</td>
<td>not conducted</td>
<td>local, national &amp; international</td>
<td>email – SET credit card facility</td>
<td>fax order form</td>
</tr>
<tr>
<td>email phone address</td>
<td>not conducted</td>
<td>local &amp; national</td>
<td>email order form</td>
<td>email order form</td>
</tr>
<tr>
<td>email phone address</td>
<td>website comparison</td>
<td>local &amp; national</td>
<td>email order form</td>
<td>email order form</td>
</tr>
</tbody>
</table>

All of the SMEs had email as a communication option. Only 33% included a street address, 47% included a telephone number and 17% had email only details on their websites. 50% of the SMEs conducted some form of research including seeking information on similar websites, price comparisons and product comparisons. Only 33% of the SMEs offered secure online transaction (SET).
ordering facilities and only 10% offered a currency converter. 50% of the SMEs hoped to reach an international customer base, whilst the remaining 50% aimed for a local, regional or national increase in customers. It is suggested that the majority of the SMEs had not included SET or a currency converter as they were in a transitional stage of electronic commerce. Also, the lack of prior planning and forethought mitigated against implementing relatively inexpensive requirements such as a currency converter, particularly as 50% of the SMEs hoped to reach an international market.

5.5 Interview and Focus Group Results

The data for the interviews and focus groups were combined as they were based on the same interview schedule and therefore followed the same order of questions. Combining both data sets also allowed for more meaningful presentation and analysis of the results.

The semi-structured interview data were analysed qualitatively. The comments were examined and divided into themes and patterns developed within the previous chapters of this thesis. The transcripts were then coded using N*Vivo qualitative analysis software.

All of the interviews were conducted in the offices of the respective participants and they were recorded via audio tape. All participants agreed to be taped and participant permission was gained prior to the recording, none of the participants appeared inhibited by the taping.

The interview schedule included mostly open-ended questions in order to elicit candid responses that were meant to shed light on the research questions.
Repetition in the form of different structured questions and answers, confirmation and peer-interaction (in the focus groups) and agreement provided evidence of corroboration. Information extracted from secondary data sources as outlined in the Literature Review (chapter two), was incorporated into all interviews. This helped focus the interviews more clearly and elicited additional trust from the participants by the researcher exhibiting knowledge of electronic commerce and consultant engagement. The interview questions moved from those seeking basic information about the issues to those designed to elicit more insightful reflections.

At times the interviewer was asked for their opinions and recommendations on the issues but decided not to share the researcher's current knowledge with the participant during the interview process, so as to not "taint" the flow of the interview. During the interviews the interview schedule was present in order to remind the interviewer to cover all areas and it appeared that all interviews took on an open, informative and reflexive tone. Information obtained in the interviews allowed a rich variety of answers to be obtained from the study participants. Question replies were grouped to show the pattern of replies and the frequency of each answer.

5.5.1 Details of the online focus groups

The intent of the focus groups was to verify the in-depth interview results, strengthen the theoretical framework and to collect information from SMEs in other parts of Australia. A total of fifteen SMEs participated in two focus groups that covered five states and territories in Australia.
DePaulo advises that separate focus groups are needed for optimum results because any one group may be idiosyncratic and valuable information may be overlooked (DePaulo, 2000. p.2). Fifteen online SMEs were identified, based on the same criteria as for the in-depth interviews, and approached to participate in the research study.

Initially, 30 SMEs were approached by email in February 2001 and invited to participate in one of two online focus groups. Two possible participation dates were proposed: Friday 16th February 2001 between 9am and 12 noon and Friday 2nd March 2001 between 9am and 12 noon. Four of the SMEs responded to the email and two agreed to participate in the focus groups. The remaining 26 were telephoned and a further 13 agreed to participate, making fifteen in total.

For the Virtual Focus Groups the researcher acted as the group moderator and introduced each question. The researcher did not participate in the discussion in order to encourage participants to share their ideas with the group as much as possible. The participants not only answered the researcher's questions but also introduced their own ideas agreeing or disagreeing with others in the group.

The researcher developed a procedure for conducting the virtual focus groups:

The researcher acted as the moderator of the group;

Informed consent was obtained from all participants prior to conducting the groups;

Anonymity was guaranteed for all participants;

Permission to record interview data was requested prior to conducting the VFG;
Each VFG was limited to sixty minutes;

Participants were informed that answering questions was voluntary;

Questions were based on the schedule for the face-to-face interviews; and

All participants were offered full copies of interview transcripts and were invited to comment.

The researcher designed a website with technical assistance from Dow Digital (http://www.dowdigital.com.au/webcentre/). The website included a free "shareware" chat room for conducting virtual focus groups over the Internet. The website home page gave an introduction to the research and the purpose of the focus groups. Once in the website, the respondents could proceed to the chat room or access a help screen or contact screen for further information. Anonymous logins were used to access both the website and the chatroom.
Edith Cowan University & SME Online Chat Room

This is a series of national SME focus groups designed to investigate the relationship between Australian SMEs, Internet strategy and the engagement of website design consultants.

Each SME will log in using a non-identifying log-in (to guarantee anonymity) emailed by Shirley Bode, Principal Researcher, prior to each focus group session;

The focus group will run for approximately 40 minutes and each session will be facilitated and led by the key researcher Shirley Bode;

The facilitator will pose questions relating to the topic and each participant is free to contribute - all questions are voluntary and people who do not wish to respond need not do so;

It is agreed that you authorise Edith Cowan University and Shirley Bode to use and/or reproduce the research data in the preliminary and final research material.

The chat room allowed all responses to be viewed in order of submission to the discussion. It was felt that this would encourage the flow of the discussion and minimize the number of steps taken by the participants.

As the participants entered the chat room they were greeted by the Moderator and invited to participate in the group discussion. The following figure illustrates the chat room in session:

Figure 5.1. Screen Shot of online focus group website.
Each participant was asked to introduce themselves by prior arranged code name. The moderator referred to a topic guide summarising the questions and issues for discussion. The moderator actively encouraged all participants to discuss the issues by referring directly to that participants code name.

Each focus group discussion was captured in a log file and transferred into the N*VIVO qualitative analysis database. This provided a complete record of the focus group interviews and facilitated in the analysis of the data and the identification of themes and patterns. See Figure 5.3 for an example log file excerpt.
In the first focus group one of the participants was late as he had difficulty in logging onto the site, he telephoned the moderator and asked for advice on accessing the chat room. The chat room also included a help button on the main chat room screen that linked to a help screen that advised participants what to do if they were "bumped" (accidentally removed) from the focus group session.

Accidental removal from the session could have occurred if the participant's browser crashed; if the dial up access line dropped out; or if they suffered a screen freeze.
5.5.2 **Inter-rater reliability**

Of the 50 SMEs approached to participate in the research 30 agreed resulting in a 60% response rate. It was felt that 30 SMEs was an optimal number for in-depth interviews and the two 7 and 8 member focus groups.

After the interview transcripts were coded by the researcher, 10% of the transcripts were then independently coded by two other researchers, both university academics. A set of instructions was prepared for the coding, with examples of coded text. The procedure for inter-rater reliability was as follows:

The researchers were given the transcripts, coding categories and descriptions of what each category meant. Each of the two coders independently coded the same transcript, when they finished the two coders compared their independent codings and discussed with the researcher any discrepancies, noted areas of disagreement and negotiated a solution for coding any discrepant areas of text.

Inter-rater reliability was calculated using the formula outlined by Miles and Huberman (1994, p.64) whereby reliability equalled the number of agreements divided by the total number of agreements plus disagreements.

\[
\text{Inter-rater reliability} = \frac{\text{number of agreements}}{\text{total number of agreements + disagreements}}
\]

Miles and Huberman (1994) recommend an agreement rate of at least 80% initially and 90% overall to ensure the coding scheme is accurate. In summary, overall reliability between the two coders was excellent and suggests that there
were no systematic differences between the coders and the researcher. Table 5.17 shows the agreement figures for the independent coders.

Table 5.17 Inter-rater reliability measurement

<table>
<thead>
<tr>
<th>% Agreement</th>
<th>Independent Coder #1</th>
<th>Independent Coder #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall total percentage agreement</td>
<td></td>
<td>92%</td>
</tr>
</tbody>
</table>

This calculation of inter-rater reliability indicates that the coding schema was clear and easily understood by the independent coders and therefore enhances the reliability of the results.

5.5.3 SME interview and focus group question results

The collected interviews were assembled and analysed in line with the four main steps of qualitative interview analysis proposed by Lamneck (cited in (Sarantakos, 1994 p.305).

1. Transcription:

The audio recordings were transcribed onto both hard copies and computer database formats. The transcripts were reviewed and cleaning and editing undertaken.

2. Individual Analysis

Each interview was analysed separately and responses grouped into themes.
3. Generalisations

Differences and similarities between the interviews were identified and a series of themes and patterns were developed into which responses could be grouped across interviews. Where possible the same themes were used as had been developed during the Literature Review and inline with Gable's consultant engagement model (1991) and Cragg's (1998) Internet strategy model.

4. Control

The information was verified by continual reference back to the original audio recordings and initial transcripts. Effort was made to ensure that responses were not taken out of context.

The interview data produced a range of themes which are analogous with those developed within the literature and within this study.

The following section describes the responses provided by the research participants to the semi-structured interview questions. The questions are clustered to reflect the dominant themes of the study: Internet/e-business strategy, consultant engagement, the alignment of business and web development strategies and the alignment of SME strategies with consultant strategies.

5.5.4 How did you plan the development of your website?

In chapter two it was found that prior to consultant engagement a SME should have a clearly defined Internet strategy. The research indicated that SMEs
planning processes tended to be non existent or informal and often developed in an *ad hoc* and piecemeal fashion (Kotey, 1998; Levy, 1999; Robinson, 1984; Rue, 1998). It was also suggested that SMEs tended to be reactive in their planning and strategy implementation (Kotey, 1998; Robinson, 1984), resulting in a negative impact on the performance and success of the enterprise. Kotey (1998) further suggested that a continuum of strategy type from proactive to reactive existed. The results of this study tend to support the notion of SMEs as “reactive” planners. Further research showed that an important factor in the success of online enterprises was their ability to align business processes with website strategy. (Angehrn, 1997 Poon & SWATMAN, 1995 Cragg, 1998, Bergeron *et al.*, 1998; Lawrence & Chau, 1998).

The theoretical framework developed for this study *The Strategic Partnership Model* (chapter 2) indicated that all four quadrants of the model needed to be in alignment to achieve a successful e-business outcome. The lack of planning evidenced by the SMEs indicated a misalignment between the first and second quadrants, SME business plans and strategies (quadrant #1) and consultant management strategies (quadrant #2).

In this study it was found that 20% of the SMEs actually planned the development of their website. Of this, 78% specifically outsourced the planning strategy to the website design consultant. The remaining 80% did not plan their websites at all or assumed it was part of the consultants brief. Typical comments included: “we didn’t plan it at all”; “no, no planning - just ideas”; “we thought, let’s just get on the web and see where it goes from there” and “that’s what the consultant was for”.

181
Only one of the SMEs had a written plan for their website development prior to consultant engagement. The remainder either explicitly or implicitly expected their consultants to prepare a written plan.

Cragg, (1998) identified four components of Internet strategy that he suggested should be considered by SMEs when engaging in online commerce (goals, content, process and functional). The goals component of an Internet strategy was sub-categorised by Cragg into primary and secondary goals. Primary goals were identified by Cragg (1998) as the main expected outcomes from the Internet strategy and secondary goals were subsidiary goals. It was suggested by Cragg that a SME should incorporate both primary and secondary goals within the overall Internet strategy in order to identify exactly what they expected from an online presence.

Cragg (1998) indicated that the benefit of incorporating primary and secondary goals would enable SMEs to recognise potential economic benefits. When interviewed, the SMEs could verbally identify their primary and secondary goals. Identification of goals was not an easy task for the SMEs in this study, several participants had to give it a great deal of thought prior to responding. Table 5.18 below illustrates the SMEs primary and secondary goals:
Table 5.18 SME Primary and Secondary Goals

<table>
<thead>
<tr>
<th>Goals - Primary</th>
<th>Distribution</th>
<th>Goals- Secondary</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>To increase profits</td>
<td>20%</td>
<td>To increase profits</td>
<td>27%</td>
</tr>
<tr>
<td>Advertise</td>
<td>20%</td>
<td>Advertise</td>
<td>23%</td>
</tr>
<tr>
<td>Increase customer base</td>
<td>37%</td>
<td>Increase customer base</td>
<td>50%</td>
</tr>
<tr>
<td>Alternative to shopfront</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat of competition</td>
<td>3%</td>
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<tr>
<td>Total</td>
<td>100%</td>
<td>Total</td>
<td>100%</td>
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</tbody>
</table>

Twenty two of the SMEs had future goals for their sites and six had no future plans or goals and two SMEs weren't sure. Of the twenty two SMEs who had future goals and plans, 45% described future goals as functional e.g. "we'll continue to look at putting new products on the site...", "we might put in a few applets, to pop up around the place on the site"; "continue to update our price menu, other than that I can't see any other changes from what we are doing at the moment". Whilst 27% (of the 22 SMEs with goals), intended to completely redesign their entire websites.

When asked if they were satisfied with the level of strategic planning and management offered by their consultants 93% of the SMEs were either dissatisfied or extremely dissatisfied with the strategic skills of their consultant.

5.5.6 SMEs and Consultant Engagement

In Chapter two Gable's (1989) 12-phase model for consultant engagement was examined and categorised into three distinct areas: preliminary evaluation, consultant engagement process and post-engagement followup.
Gable’s (1989) 12-phase model sought to identify the steps required for successful consultant engagement. It was implicit in the model that each step should be followed in order to increase the potential for engagement success. Each of the thirty SMEs and the five consultants were analysed using Gable’s model and areas where they did not adhere to the steps are easily identified. Table 5.19 illustrates how closely the SME cases adhered to the guiding principals of the 12-phase model (Gable, 1989) for consultant engagement:
## Table 5.19 Case SMEs & Gable’s 12-phase model for consultant engagement

<table>
<thead>
<tr>
<th>Gable's 12-phase model</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>12</th>
<th>13</th>
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<tbody>
<tr>
<td>1) Define problem</td>
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<td>2) Evaluate internal resources</td>
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<tr>
<td>3) Canvass the market</td>
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<td>4) Develop RFP</td>
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<td>5) Check references</td>
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<td>6) Evaluate proposals</td>
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<td>7) Select firm</td>
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<td>8) Negotiate a contract</td>
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<tr>
<td>9) Announce selection</td>
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<tr>
<td>10) Review of responsibilities</td>
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</tr>
<tr>
<td>11) Monitoring &amp; control</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>12) Post-engagement evaluation</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

### Legend:
- • completed step
- 0 partially completed step
- Blank indicates step not completed
There does not appear to be any consistent pattern in how the SMEs adhered to Gable's (1989) model. Although it was found that all of the SMEs missed certain phases for example, two of the steps were not considered by the SMEs, step 6 (evaluate proposals) or step 9 (announce selection). Only 10% of the SMEs had canvassed the market (step 3), and only one SME had developed a "request for proposal" (step 4). Only two of the SMEs had fully checked references by consulting the refereed websites suggested by the consultants and contacting the businesses for confirmation. A further 50% had checked refereed websites, but had not confirmed the accuracy and authenticity of the refereed sites.

Two SMEs had negotiated a written, formal contract with their consultants and four had informal contracts variously referred to as: "a gentleman's agreement", "a handshake agreement" and a "letter of agreement". Only 17% of the SMEs had reviewed the mutual responsibilities of the project (step 10) and 30% considered that they had monitored and controlled the engagement process.

Interestingly, only 17% of the SMEs had conducted a formal post-engagement evaluation of the process (step 12), whilst a further 20% had informally evaluated the process. None-the-less 97% of the SMEs had, or were in the process of, severing the consultant/client relationship. For the majority of the SMEs this decision was not merely a cost-cutting exercise, all felt they lacked control over the site and could manage the site better internally.
5.5.7 When engaging the consultant how much input did the SME have in the engagement process?

The SMEs in this study varied in their input in the consultant engagement process. 33% stated that they had no direct input into the process, had engaged the consultant and left them to manage the entire project:

"The CEO gave them the main ideas and then left it up to them to do it";

"Not any at the beginning and after the initial set up we haven't heard from them since";

"No input at all, it was all up to the consultant to do the job";

"No, we virtually trusted them";

"They had no idea of our business, but we expected them to be experts in e-commerce and left them to get on with it".

The remaining 67% of SMEs felt that they had a great deal of input in the consultant engagement process. 16% described the input as a 50/50 arrangement, but were unable to clearly articulate what was involved in a 50/50 arrangement:

"It was a fairly 50/50 arrangement, we gave them the information and they would do the work and contact us to say 'is that alright?'";

"I would say it was 50/50. He knew how to achieve, we knew what we wanted presented and we actually didn't change it from the original presentation format. I’d say 50/50 on what the final product looks like."
Those that had a higher level of input in the consultant engagement process felt that the input was warranted and necessary to ensure they achieved the best possible results:

"There was lots of consultation, but it still took three attempts to get it right",

"Quite substantial input in choosing the products, helping him design the front page, how the site would actually work, how customers would choose from the site, going through page to page, different products and right to the end, so it was quite substantial",

"Yeah, a fair bit because he really couldn't get his head around what we do here and his image of what we do and our image of what we do were well, took quite a bit of explaining. Once I got it through his head that his image of what we do isn't on, then it all started to come together",

"Quite a bit, because he knows nothing about my industry, so I had to tell him what I wanted to say to these people. So apart from the layout of the actual pages he actually had nothing to say on how to promote the business, basically he has no idea about what makes the market tick, what turns them on so to speak. So, it was mainly me."

To further clarify SME input in the consultant engagement process questions were asked on the actual time spent by the SME and the consultant on the entire project and the timeline for the entire project. Table 5.20 illustrates the timelines for the projects.
Table 5.20 Project Timelines

<table>
<thead>
<tr>
<th>Timeline - project</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;3 months</td>
<td>27%</td>
</tr>
<tr>
<td>3-6 months</td>
<td>33%</td>
</tr>
<tr>
<td>6-12 months</td>
<td>27%</td>
</tr>
<tr>
<td>&gt;12 months</td>
<td>3%</td>
</tr>
<tr>
<td>not sure</td>
<td>10%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The project timelines were mainly based on expectations rather than explicit agreement between the client and the consultant on project completion times. Over 95% of the SMEs did not state a completion time for the project and surprisingly all of the consultants were equally vague on expected completion times. Comments on project timelines are presented to add an interesting dimension to the above data:

"He put the whole thing together in a three week period, but he definitely didn't work full-time. He seemed to be working full-time somewhere else, I could never find him when I had a question he was always on 'another job'";

"He seemed to set it up pretty quickly, it was within 3 days or so. It was up and running";

"It took him a whole year, I couldn't believe it";

"It was a long, slow and painful implementation process".
Table 5.21 illustrates the SMEs expectations in regard to project completion times:

Table 5.21 Expected project completion timeframe

<table>
<thead>
<tr>
<th>Project met expected completion time</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within timeframe</td>
<td>15%</td>
</tr>
<tr>
<td>Not within timeframe</td>
<td>75%</td>
</tr>
<tr>
<td>Unknown</td>
<td>10%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

75% of the SMEs felt that the projects went over their expected completed timeframes, yet they had not agreed to an acceptable timeframe with their consultants prior to the project start date. Gable (1991) stated that client expectations and communication play a critical role in the success of the client/consultant relationship.

SMEs were also asked how many hours they had contributed to the project and the responses varied between no time allocated to the project to the following:

"In real terms, around 500 hours";

"I was working 18 hours a day on it for about three weeks, I prepared all the text and images and I'd calculate that at around 380 hours";

"I'd have to say my work probably took about 100 hours";

"I spent about an hour and a half per week over 2-3 months";

"I spent a fair bit on time in actually writing the pages with the information to go on the pages. Because I was writing blind, I didn't
have a complete concept or understanding of what I was doing, so I found it a bit difficult. I actually provided all of the wording and they kind of just linked it all through, took me about a year all up";

"I have no idea".

38% of the SMEs spent more than 50 hours of their time on preparing written or visual information for their websites; discussing the issues with the consultant and making decisions on content and design. 57% of the SMEs spent no time on the project and left it entirely to the consultant to manage and the remaining 5% were unsure how much time had been allocated.

5.5.8 Did the consultant take into account your individual business needs?

It was found that 40% of the SMEs felt that the consultant considered their individual business needs. Whilst 10% of SMEs felt that their business needs were met after additional negotiation with the consultants and 50% of the SMEs felt that their business needs had not been met.

Of the 40% of SMEs who felt their business needs had been met, 17% made qualifying comments including:

"Yes, I think she did - within the best way she could understand it. I felt her general business knowledge was a bit scant but she did try very hard to get a grasp of what was required."

"Yes, that was a tough thing. I think they didn't quite understand us and that's kind of a reasonable thing I don't think people can come in and actually understand what we do and what we're about unless they're actually part of us. So it was more of a case of hammering that home and just going no that's not us and no we don't do that, yes this is what we want to do. It's a funny thing because obviously people who are in the business of working with businesses they're going to try and supply business solutions and I guess you've got to hear them when you're going into a new kind of thing or new area
but we were very aware at the time like going all the time yeah that might be a good idea but that's not us and we won't do that so it's trying to get them as close as possible to us".

The following quote states that the SME felt their business needs were met, yet it could also be suggested that the qualifying statement more clearly indicates that the business needs were not met in an adequate manner:

"Well yes I'd have to say they did, but then they did make quite a few errors on the site that now that I'm in charge of the site I can see what is wrong. You can't find the contact details from the home page, you have to go to another section and then find contacts listed under staff directory. We didn't actually stipulate this in the contract, we just allowed them to make those decisions. But those kinds of mistakes make it hard to navigate round the site and we might lose customers who can't figure out how to contact us easily."

Of the remaining 50% of SMEs who felt their business needs were not met, 4% felt that it was a mutual problem of the SME and the consultant. For example one SME stated:

"I think there's a failure on my part to not impart enough information and it's a failure on her part not to try and interpret the information I did give her."

and

"We talked about that when they sent us out a survey to do, because we felt that really they didn't understand our business and we didn't really at that time understand websites. So we found that a bit of a difficulty. I think we might have done it differently, a bit, if we'd known more."

Several of the SMEs felt that it was virtually impossible to get the consultants to understand their business needs and this is reflected in the following comments:
"I tried to explain to him that we do something different here and he had to get his preconceived ideas out of his head, we had to get him out of that and to understand what we were talking about. I had to use some choice four letter words to get him to understand."

"Well, he wasn't aware really of the industry I'm in and he wasn't aware of the market. I mean obviously he realised it was to increase sales, to increase business you know it was the prime reason. But no, he wasn't that knowledgable about my particular needs until I explained that I obviously wanted to increase sales. I don't think he had a lot of general business or marketing acumen."

5.5.9 Did the costs of building the website meet your stated or expected budget

The SMEs were also asked whether the costs associated with the websites were kept within budget or whether the costs had exceeded limits either stated or anticipated.

All of the SMEs (100%) indicated that budgets were exceeded. 90% of the SMEs stated they had informed the consultants of their budget limits. 8% had not discussed a budget figure with the consultant, had been informed of an hourly rate by the consultant, but were unaware of how the hourly rate was managed until presented with an unexpectedly high invoice.

For example several SMEs did not realise that consultant hourly rates depended on the type of work conducted: project management was a higher rate than graphic design and data entry was at a lower rate compared to html editing. The remaining 2% had either received a written quote or had an unwritten agreement on the cost of building the sites.
"they said it was $5000 and originally it was a $1500 quote, something like that and over the six month period it just increased by about 333%. They said it was a variation over time and I had a go at them and I said no way that's too expensive, it seems like every word cost $100. I still can't figure how it increased over 300% from the original quote";

"it was 40% higher than budgeted which I think is an enormous amount";

"they never seem to be very much in contact with the realities of budgets, which has been proven in this situation because the budget was blown";

It all seems to go through the roof, I do feel a bit ripped off. When they said $8000 in the end I nearly fell to the floor";

One SME was so concerned with the level of fee increases that he actually started to replicate the work himself to get a clear estimation of the time required and to see if it matched what he was being charged:

"I found if I did it myself it stopped them from hitting me with extra costs as well - saying they spent 3 hours on this, where if I sat down for an hour and a half and said ok it's taken me an hour and a half and you're a professional it'll take you this - and then you can sort of estimate how much you're going to be charged with the quotations the estimates that they've put down for the hourly rate. I found that I could keep them under control and the invoices became a bit more reasonable".

and

"no, it didn't stay within budget - especially not when we received invoices for work we didn't even ask for and invoices for work that is not completed."
5.5.10 Did your consultant have the experience or expertise to strategically manage your electronic commerce initiative

Research has shown that one of the critical factors leading to consultant engagement success is consultant experience or expertise (Gable, 1991; Hunter, 2002; Krentzman & Samaras, 1984; Kumar et al., 1999; Murphy, 1999; Thong et al., 1996). The SMEs in this study were questioned on their perception of consultant expertise in strategic management, website design skills and consultant experience.

98% of the SMEs in this study felt that their consultant lacked either the appropriate expertise in website design, electronic commerce and strategic management and/or lacked experience as a consultant. The majority of the SMEs had quite strong feelings in regard to consultant experience and expertise and this is reflected in the following statements:

"It seems like a lot of people out there promote themselves as being able to do things, but when it comes to actually hands on and making it happen they can't do it, they have to make phone calls or they have to get back to you or ring someone else and that was actually very disappointing";

"They always think at a MYER level [large department store] and not at a small shop level. They never think about other businesses in the area, how you are going to affect them how they are going to affect you. There's a whole scenario out there that's missing with consultants and small business.";

"I don't think that they have any ideas of their own. I think they are very good technically, but I don't think either artistically or marketing wise that they are particularly well clued up. They really don't have
any idea about advertising, marketing, the look of things or anything like that.

"Unfortunately, there's been three implementations of this site. The first implementation I got very little of what I'd asked for, she didn't hear what I'd actually said. She tried to reprocess what I'd said and we were actually missing things that we'd needed. So, she tried to streamline the whole thing, but in the process it deleted what we needed";

"There's lots of consultants out there who have no idea of what they are doing. They will bullshit in your face to try and get money out of you, but they don't actually solve your problems. He wasn't aware of what someone needs in business and it's like we're speaking two different languages and that's not a healthy situation for anyone in business. I don't think that the case was that he looked for solutions until he was prodded";

and

"The unfortunate thing is her business acumen is in the toilet."

The level of disappointment in consultant experience was extremely high and disparaging comments about consultant experience and expertise was the norm. Gable (1991) examined the client/consultant engagement process and found that consultants often appeared to have minimal relevant experience. This factor is supported by the findings of this study.

In this study, consultant experience was considered severely lacking, although as stated in point 5.3.1 above, all of the consultants explicitly stated strategic management skills of some kind, emphasised project management skills and web development skills. These results support views raised in the relevant literature, especially that espoused by Thong and Yap (1996); Kumar, (1999); Krentzman,
(1984); Murphy, (1999) and Gable (1991) that consultant expertise is an integral factor in the success of the client/consultant engagement process.

5.5.11 How do you feel the consultant could improve their service.

This question was asked as a logical next step from the question related to consultant experience and expertise. As the client/consultant relationship is one of the primary indicators of consultant engagement success it was felt that insight from the SME perspective would be a valuable adjunct. It was found that suggestions for improvement fell into five broad categories: functional; staffing issues; client/consultant relationship; fee structure and no suggestion. The following table (Table 5.22) illustrates the areas suggested by the SMEs for improvement by the consultants. The percentages do not equal 100% as SMEs could choose multiple areas.

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>40%</td>
</tr>
<tr>
<td>Staffing</td>
<td>60%</td>
</tr>
<tr>
<td>client/consultant relationship</td>
<td>85%</td>
</tr>
<tr>
<td>Fee structure</td>
<td>70%</td>
</tr>
<tr>
<td>No suggestion</td>
<td>1%</td>
</tr>
</tbody>
</table>

Functional issues included ensuring the website worked prior to allowing the site to "go live". 40% of the SMEs found errors when checking the sites after project completion. Examples included linking areas within the site, the site not working or unavailable and errors with design and layout.

"it's been a long process we've found this is a problem and we've found quite a few problems along the way and I've found that
there's been a few errors that if they'd run through the site completely themselves, that it should never have been a problem, that it should have been fixed even before it got to us. Whereas now I've had to go back and say, look this is a problem, I've now found this is a problem and I've found it annoying."

"The amount of times I've gone on the site and noticed that it wasn't coming up and I haven't been able to access it and I ring them and they say 'Oh isn't it going?' 'Oh that must be one of our smaller servers', because they use different servers. It died on the weekend and Richard says 'Oh, I'm on call I should have known about that' and I said 'well Richard, it's been out for three days', this is over a long weekend. And it's my business, people look at websites on the weekend and they can't access mine."

Staffing problems were divided into two sub-categories: staffing levels and staff experience. Of the 60% of SMEs that indicated staffing as an area for consultant improvement over half felt that consultant staffing levels were inadequate:

"...he could do with some more staff. He's now working more and he's got quite a few more sites and he's probably working 20 hours a day so he's hard to contact and there's no-one else there."

"Yes, when I required something to be changed it took a long time for them to get back and I'd ring up and say don't tell me your problems, if you haven't got enough staff then get some staff."

"...he works internationally as well we have breaks in between and you sort of have to sit there and twiddle your thumbs until he comes back so they should really put somebody in who is professional to replace him whilst he's away and not just leave it to either the secretary or somebody who doesn't know."

The other staffing issue was the experience of staff. It was found that all of the consultants delegated the projects to less experienced staff once they had been engaged. This resulted in a high level of frustration and anger amongst the
SMEs, who felt they had been duped once the projects began and palmed off on to junior, less experienced staff.

"...that was one of the most frustrating exercises we went through and also part of the thing they tried to develop was an online shopping cart and that got half way through and stopped because the frustration, they had four young guys straight out of Uni cutting code. We ended up persevering for nine months more than what we were prepared for then stopped the project, so it hasn't gone beyond that..."

"It's absolutely shocking, when I first saw them I thought "my kids are older than them". They were absolutely shocking, absolutely shocking. We got burnt badly. I've been working in this industry since the mid to late 80's and I've never had such trouble like I have with these people."

"We're still struggling with them now up to a week or so ago we had four or five weeks where the website was unavailable for parts of the day and clients were going berserk it was really affecting our business. We got hold of the owner who was a gentleman in his 50's and been around business for a fair while, he just can't control the young guns he really needs to get some experienced staff."

The client/consultant relationship was a major factor in SME disappointment in the consultant engagement process. Gable (1991) and Murphy (1999) examined client/consultant relationship theory and suggested that the relationship between a consultant and client is one of the most important factors in effective engagement processes. It is interesting to note that 85% of the SMEs in this study felt that the client/consultant relationship process needed improvement and indicated that communication between the parties was often considered non-existent or of a low quality.
"When talking to the consultants when I have a problem they won't pass you on to the person you need to speak to, they'll say they'll talk to them and then I'll get back to you so it's like they try to cut out the process of you because to the technical guy, because you'll say can you put that there, and that guy's probably going to go yeah ok sure I'll just fix that up - it's the cost, the way they do it the Account Manager says yeah, I've spoken to so and so and he can do it and then none of it gets done."

"I must have an Internet presence and be able to sell using electronic commerce, but I know absolutely nothing about it, but I'll hire an expert in and they'll know exactly what I should be doing. And the expert knows what the expert should be doing but they don't know what the business should be doing because they don't know the business - and it's not necessarily a difficult thing to do it's not like you've got to run that business for a year, it's just being open and receptive. I found that they had a lot of difficulty in doing that. And consequently you end up with those situations where we have forked out a lot of money getting something we don't really need because they don't really tell us what they're doing."

"I guess they could have offered more advice. It was obvious that we didn't know much about website development and we guessed they'd know what would work, but even though they said they were experienced we question that like for example, not being able to find our way around the site easily."

and

"I think perhaps he should have come here and gone through it while we were together, rather than me ringing up on the phone and saying look we just had another look and we don't like this. So it was kind of me constantly contacting him rather than him coming out at the end and going through it and saying right this is it it's final we're finished with it, just rounding it all off and saying are you happy, yes we're happy and that's it. It didn't close up at all."
Again, these results support views raised in the relevant literature particularly those of Kumar, (1999); Murphy, (1999) and Gable, (1991) all of whom stress the importance of the client/consultant relationship.

Finally, the fee structure was a problem for 70% of the SMEs. As stated in point 5.7.2.3 above, 100% of the SMEs indicated that their budgets were exceeded. In terms of improvement of consultant service the SMEs indicated that the fee structure could have been more straightforward.

"They could really improve their service by telling us that the changes were going to cost us extra money. It was a real shock when we got the final bill because I told him how much money I had to work with and he just went way over anyway and didn't tell me."

"If I'd known the full cost of the site I'd have been happier, they could've been more up front on the charges. In the end I've spent a thousand dollars for nothing really, if I could get the thousand dollars back, I'd be satisfied but at this stage it doesn't look like it."

5.5.12 How would you describe your relationship with your consultant.

80% of the SMEs in this study rated their relationship with the consultant as poor or very poor. The remaining 20% described their relationship as average or good. Gable (1991) suggested in his study of SMEs and consultant engagement that "a good client relationship is the most important variable of successful implementation" (Gable, p.89). He further suggested that the nature of the client/consultant relationship could have a substantial impact on the project direction and outcome.
N*Vivo facilitates word counts in its text search reporting option. A preliminary count was conducted of the above words, exported to an Excel spreadsheet and a graph generated to highlight the frequency distribution (see Figure 5.6 below):

![Frequency Count Graph](image)

*Figure 5.6 Excel chart - frequency distribution for selected words*

The above does not lead to meaningful analysis. Firstly, there is the issue of semantics, words may have multiple meanings depending on context. In the above example the word quality may indicate quality of consultant service provision or it may mean quality of website design.

Ultimately, content analysis may be considered a method of interpretation with its own inherent weaknesses. One major weakness of content analysis is the inference of particular meanings, intentions or understandings from the text alone (Eco, 1994, p.94). It is the researchers responsibility to limit these weaknesses and ensure that the analysis is as reliable as possible.
Krippendorff (1980) drew a distinction between data validity, results and procedure. He suggested that for the data, codes are related to the words in the text (semantic validity). Results can be validated by comparison with other results, in this case with the results from the interview and focus group data. Finally, procedural validity is ensured by developing a coding frame that embodies the theoretical framework for the study.

Inter-rater reliability for the coding frame was calculated using the formula outlined by Miles and Huberman (1994, p.64). For content analysis Inter-rater reliability is considered to be very high at .90, high at .80 and acceptable in the range 0.66 to 0.79 (Cohen, 1960). The overall percentage agreement for the consultant website content analysis coding in this study was 81%.

5.7.1 Themes and patterns in the content analysis

The consultant websites made a number of claims in regard to their experience and expertise, strategic management skills and specifically stated they had the ability to increase SME profit margins. Obviously the consultants claims are a marketing technique, but with an Industry that is completely unregulated in Australia, what happens when those claims are vastly overstated? The literature review identified the issue of the misconceived view of the client/consultant role as one of the prime reasons for the breakdown of the client/consultant relationship.

If the consultant claims are largely unsubstantiated then their role is not only misconceived it could be suggested that it may be entirely erroneous. Although, Gable (1991) went on to suggest that SMEs should take a proactive role in
assessing the experience and expertise of the consultant prior to engagement. 
Thus, making the relationship one of mutual responsibility.

The following themes and patterns were identified in the analysis of the consultant 
website claims.

1. Strategic and Project Management skills

All of the consultants explicitly stated in the interviews and on their websites that 
they provided strategic management and project management skills. They 
commonly suggested that they offered a "total solution" to an SMEs electronic 
commerce requirements and could implement a website that would increase the 
SMEs profits exponentially:

We offer a thorough, unified strategic approach to internet development and have set up a dedicated strategy division. Since 1995 we have provided management consulting and internet strategy services to SMEs seeking to grow their businesses on the Internet;

We endeavour to provide 'best practice' solutions to our clients in an ever changing technological world to allow you to increase your profits;

It's our focus on our client objectives that will give you the best solutions for your business. We will manage your entry to the world of e-commerce with our team of web specialists and our award winning design team will guarantee you increase your bottom line;

If you want a quality website that captures the essence of your business and catapults it onto the web for the world to see, we will deliver and you will see your customer base soar;

We are here to provide exceptional services to our clients through working in an ego-less, nurturing environment. Our trained experts
will assess your current needs and tailor a solution that fits your needs as well as the budget;

We aim to provide SMEs with a well designed and aesthetically pleasing website to facilitate entry to the online world. It is our mission to provide the customer complete satisfaction, we work in consultation with our customers to develop optimum solutions.

Of the SMEs who had planned their websites the majority specifically outsourced the planning strategy to the website design consultant. Therefore, consultant strategic and project management skills would have been a high priority for those SMEs engaging a consultant and requiring that particular skillset. Yet a high level of dissatisfaction was found amongst the SMEs in regard to the skill level of the consultants. The following question could be posed: Are the consultants overstating their abilities or do the SMEs have unrealistic expectations? This issue will be discussed in greater depth in the concluding chapter of this study.

2. Claims of experience and expertise in implementing electronic commerce initiatives for SMEs

The SMEs and the consultants both stated that experience and expertise were pivotal concepts in what makes a 'good' consultant. The consultants claim they have the requisite experience and expertise, yet the SMEs suggest that experience and expertise is one of the main criteria that is missing in the equation. The following excerpts from the consultants websites indicate they offer a high level of skills and experience, the question will be: do they deliver?

Our teams include experts in marketing, sales and all relevant strategic and technical domains, it is a multifaceted team with a broad range of experience and expertise;
We are professional, unique, creative, tangible, diverse and interesting. With the ability to create innovate and unique solutions to your e-commerce experience...we offer simple answers to what may seem impossible problems;

We understand that electronic commerce development is more than building what you ask for, it is determining what you really need, providing options, advice and long term support;

Our team of expert consultants combine experience, research and analysis to accurately deliver e-commerce solutions to you. With your vision combined with our experience we translate this knowledge into value for our clients. We don't just manage change - we lead it!

It could be suggested that consultants must be able to market themselves, particularly in an almost saturation point sector, in order to differentiate themselves from their competitors. This competitive differentiation was identified by Porter (1991) when he suggested companies need to position themselves differently from their competitors. Porter (1991) further suggested that competitive differentiation could be achieved not necessarily by an organisation discovering their core competency but rather by figuring out where the opportunities in the industry lie.

In Australia SMEs are one such opportunity. Consultants may find the SME sector difficult to deal with, but for website design consultants in particular, SMEs are the biggest source of potential clients as they are the sector where electronic commerce uptake has not yet reached significant proportions.

If the consultant claims are accurate then they would appear to be offering value-for-money services. Yet the results from this study indicate that the claims may be less than accurate.
3. Claims of economic success

All the consultants claimed on their websites that they could increase the SMEs sales turnover. Four of the five also suggested that there were other types of success that could be achieved in addition to economic success. The claim of increasing economic success is a particularly tenuous claim, difficult to achieve and hard to prove.

One third of the SMEs in this study had no increase in sales turnover and of the two thirds who did experience an increase the majority indicated that it was not significant. This was further highlighted when the costs of implementing the electronic commerce initiative were taken into account and it was found that the costs, in general, far outweighed the economic benefits. Some of the websites had been operating for at least 12 months and were yet to show any significant increase in profit. This may be due to the SMEs lack of marketing skills, inability to understand how electronic commerce works and ineffective strategic planning. None-the-less, a high level of cynicism existed amongst the SMEs towards consultant claims of "guaranteed" success. The following excerpts highlight the types of claims the consultants made in relation to economic and intangible success:

Advertising and selling your products on the Internet allows you to reach a huge audience worldwide;

We will help you reach your target audience, create brand identity and sell your products or services;
Give your business the edge over your competitors, extend the reach of your business and we guarantee your success. We will show you how to make efficient use of today's technology and be successful.

We have what it takes, talk to us and start making REAL money with your website;

Business Owners, welcome to the site that could add a new dimension to the words profit potential. Greater Profits are something we all want and need. Let me show you how to Increase your PROFIT POTENTIAL, without greatly increasing your operating or start-up expenses.

The above statements clearly indicate that consultants are, in some instances, virtually guaranteeing an increase in profits for SMEs. Again, in an unregulated industry sector, wildly inaccurate claims may be made as there is no mechanism to ensure that the claims have any basis in reality. Obviously, SMEs have to be cautious in their approach to electronic commerce uptake, particularly when outsourcing both strategy and project management.

The literature clearly indicated that the majority of SMEs lack the technical and other skills needed to make informed decisions about electronic commerce initiatives. This information gap may then lead the SMEs into unsuitable arrangements based on ignorance of both electronic commerce and appropriate consultant engagement practices. There appears to be a need for SMEs to gain relevant and useful information in regard to consultant engagement processes. When the SMEs gain this knowledge they can then make informed, logical and careful decisions about the right consultant for their business.
5.8 Preliminary Analysis and Summary

This chapter presented the results of the SME interview and focus group data, consultant interviews and content analysis of consultant websites. The results from the focus groups and interviews indicated that SMEs did not strongly adhere to Gable's (1991) 12-phase model of consultant engagement nor did they adequately plan or strategically manage the implementation of their electronic commerce initiatives.

The analysis of the interview data collected from the consultants showed that they were similarly deficient with respect to strategic formulation - this is less surprising when one considers that the majority (4 out of 5) were also SMEs.

Gable's (1991) 12 phase model highlighted the need for a clear understanding of the mutual roles and obligations of the client/consultant relationship. The model could be used in order to guide negotiations and relations between the client and the website design consultant to achieve a more successful outcome.

The development and evaluation of an RFP, steps 4 and 6 in Gable's (1991) model, would have clarified for the SMEs exactly what they were seeking from a website design consultant. In conjunction with the RFP, the preparation of a firm contract (step 8) would have assisted in circumventing these problems.

The findings from the website content analysis indicate that the consultants, whilst using standard marketing hype, lack an understanding of the responsibility needed in their advertising techniques. Responsible advertising in this sense is more accurate yet still allows the consultant to position themselves favourably in the marketplace. When an industry sector is unregulated, either by Government
or a self-regulating Industry body, then mavericks can and do thrive at the expense of both legitimate consultants and unsuspecting and naive SMEs.

The results presented in this chapter highlight the structure of the engagement process of website consultants and emphasizes areas of success and failure in the client/consultant relationship. The alignment of business and web development strategies are poorly managed. In terms of the strategic partnership model discussed in chapter two it is apparent that there is limited development of strategy by the SMEs and serious gaps are evident in the fit between the SME's business strategy and plans and the SME internal infrastructure, processes and skills and the consultant's management strategy. In particular, it is suggested that SMEs tended to focus on the bottom left quadrant of the model (quadrant #3), the SME internal infrastructure, processes and skills quadrant and consultants tend to focus on the bottom right quadrant (quadrant #4) Information technology/technical skills and expertise (see figure 5.7). This failure to align the two quadrants could provide an explanation for the high level of dissatisfaction indicated by both SMEs and consultants with the client/consultant relationship process.
To address quadrant misalignments in the strategic partnership model, the results from the study have been used to design and implement a Consultant Engagement Online Training Course (CEOTC) for SMEs. The following chapter (chapter six) provides an in-depth discussion of the design and implementation of a website that was developed as an online training course for SMEs considering consultant engagement and Internet strategy.

The course design was based on the concepts explored in the literature review and the results and analysis of the interviews and focus groups. The aim of the course was to produce guidelines for SMEs considering electronic commerce initiatives and the use of external expertise. The website was then trialed by 18
SMEs and the results from the trial are presented and discussed in the penultimate chapter.
6. Development - Consultant Engagement Online Training Course (CEOTC) for SMEs

6.1 Course Development

This study involved the design of a website as a Consultant Engagement Online Training Course (CEOTC) for SMEs considering consultant engagement and Internet strategy. The course was designed based on the concepts explored in the literature review and the results and analysis of the interviews and focus groups. The aim of the course was to produce guidelines for SMEs considering electronic commerce initiatives and using external expertise to do so. The CEOTC can be found at http://www.knight-web.net/smeresearch/, the website is the entire online and text versions of the training modules and quizzes.

This chapter describes the way the online training course was developed and includes discussion of the design processes, including website structure, graphical user interface (GUI) and the content of the site. The following chapter then discusses the results of the trial and evaluation of the online training course.

The results of this study indicated that prior to consultant engagement, a SME needed to have a clear idea of their Internet goals and the strategies required for achieving those goals. However, none of the case SMEs appeared aware of this concept. Although the SMEs could identify their primary, secondary and content goals verbally, they tended to rely on ideas, memory and hopes for the future success of their online venture.
Only seven of the SMEs had allocated an ongoing budget for future maintenance and development of the sites. None of them had clearly articulated or formalized future aims, identified timeframes or developed clear strategies for achieving their objectives. It was found that none of the case SMEs fully adhered to Gable's 12-phase model and the thirty SMEs in this study each felt a strong measure of disillusionment with the consultant engagement process and also with the resulting e-business strategy.

The analysis of the interview data collected from the consultants showed that they were similarly deficient with respect to strategic formulation - this is less surprising when one considers that the majority (4 out of 5) were also SMEs. Gable's (1991) 12 phase model highlighted the need for clear understanding of the mutual roles and obligations of the client/consultant relationship. The model could be used in order to guide negotiations and relations between the client and the website design consultant to achieve a more successful outcome.

The development and evaluation of a Request for Proposal (RFP), steps 4 and 6 in Gable's (1991) model, would have clarified for the SMEs exactly what they were seeking from a website design consultant. In conjunction with the RFP, the preparation of a firm contract (step 8) would have assisted in circumventing these problems.

Frequently during the course of this study a small business owner indicated that they lacked sufficient understanding on electronic commerce to really specify what was required. Far more information is required by SMEs and this can be achieved through practical workshops to introduce the concepts of electronic commerce.
commerce with hands-on experimentation. The workshops should not be driven by vendors or consultants but rather by government and academics. There is a real need to cut through the hype of “e-business” and demonstrate how SMEs can turn these opportunities to their own advantage.

The Online Training Modules discussed in this chapter is considered one solution that can begin to address these concerns. The theory of consultant engagement and Internet strategy is discussed and the SME is able to test their knowledge through a series of short online quizzes related to each module.

This chapter describes the way the website was developed and includes discussion of the design process, information included and how the website can be used as an instructional tool for SMEs.

6.2 Planning

Planning for the website began in conjunction with the literature review, data collection and data analysis phases of this thesis. It was decided to structure the initial site based on Gable's (1991) 12 phase model of consultant engagement and Cragg's (1998) Internet strategy model. This became the basis for the first two modules. The three remaining modules were developed as the data was collected and analysed to allow the information gathered from the SMEs to inform the design and content of the website.

The overall objective of the website was to provide SMEs with the ability to plan for their entry to electronic commerce and to understand the nature of consultant engagement. The website allowed the SMEs to increase their understanding of consultant engagement and Internet strategy, learn about the underlying theories
and have practical, useful information that could become the basis for informed decision making.

6.3 Learning Outcomes

The intended learning outcomes of the Online Training Course was to provide SMEs with the ability to plan the implementation of electronic commerce and to select the most appropriate website design consultant for the project. The objectives of the course included: understanding consultants; business planning; Internet strategic planning; consultant engagement; contract management and project evaluation and assessment.

The CEOTC encompassed not only an easy to navigate and understand format, but also the theoretical framework required in order to make careful and appropriate planning and consultant selection decisions. This allowed the SMEs to gain the knowledge to confidently approach and engage a suitable consultant for their project. The course was designed to include Ellington's (1998) systems approach to course development. These include the two preliminary stages in the systems approach (target population examination and analysis of existing skills and knowledge), and itself forms the starting point of the cyclical process by which the course or curriculum is designed, implemented, evaluated and refined (Ellington & Earl, 1998, p.2). Figure 6.1 below shows the process of identifying the learning objectives and intended learning outcomes:
Assess and evaluate relevant existing skills and knowledge of learners.

Formulate objectives/learning outcomes.

Select appropriate instructional methods.

Operate course or curriculum.

Figure 6.1 The systems approach to course design (Ellington & Earl, 1998, p. 2)
The online training course also needed to include cognitive strategies to help the SMEs remember the information from each module. In order to achieve this objective a short quiz was designed to follow each module and to assist SME memory retention.

Each of the six stages identified by Ellington (1998) is addressed in detail in the following sections of this chapter.

6.4 Website and Course Development

The website was developed by Shirley Bode (the researcher) and hosted on the Edith Cowan University, School of Management Information Systems (MIS) Web-Centre website (http://www.knight-web.net/smeresearch/). A needs analysis conducted at the beginning of the design stage indicated that the website would need to be cross-platform and multi-browser compatible. The SMEs in the case studies had a range of equipment from 486 Intel chip based personal computers with 8Mb RAM, running Windows 3.1 operating system through to Pentium III personal computers with 15 Gb hard disk drives, 64Mb RAM, running Windows 98 software. Browsers ranged from earlier versions of Netscape and Internet Explorer through to the current Netscape 4.73 and Explorer 5. It was considered that this range of equipment and operating systems would be reflected in the general SME population, therefore it was decided to design the website to take this into consideration.

The World Wide Web Consortium (W3C) (2001) has developed specifications, guidelines, software, and tools to ensure interoperable technologies and conformity to hypertext markup language (HTML) standards across a range of
equipment, operating systems and browser configurations. HTML is the
programming language used for publishing hypertext on the World Wide Web. It is
a non-proprietary format based upon Standard Generalized Markup Language
(SGML), (W3C, 2001) and can be created and processed by a wide range of
tools, from simple plain text editors, such as "Notepad" to sophisticated authoring
tools including DreamWeaver and Microsoft Front Page. HTML uses tags like
<h1> and </h1> to structure text into headings, paragraphs, lists and hypertext
links.

The World Wide Web Consortium developed specific guidelines for users of
HTML to make websites as cross-platform as possible allowing the widest range
of users ease of access to websites. The W3C provides a list of all checkpoints
from the Web Content Accessibility Guidelines 1.0, (W3C, 2001) organized by
concept, as a checklist for Web content developers.

Each checkpoint developed by W3C (2001) has a priority level assigned to it
based on the checkpoint's impact on accessibility of website content.

Priority 1

Includes the following: Provision of a text equivalent for every non-text element,
use of the clearest and simplest language appropriate for a site's content and if it
is not possible to create an accessible page, provide a link to an alternative page
that is accessible, has equivalent information (or functionality), and is updated as
often as the inaccessible (original).
Priority 2

Includes: ensuring that foreground and background colour combinations provide sufficient contrast when viewed by someone who suffers vision impairment, create documents that validate to published formal grammars and clearly identify the target of each link.

Priority 3

Includes: specify the expansion of each abbreviation or acronym in a document where it first occurs, create a style of presentation that is consistent across pages and supplement text with graphic or auditory presentations where they will facilitate comprehension of the page

W3C suggest that Web content developers may address elements of the above checkpoints. Otherwise, some people would find it somewhat difficult to access information on the website. It is expected that this will improve general access to Web documents. (W3C, 2001).

The design of the website for this study incorporated as many of the checkpoints identified by the W3C (2001) as necessary. Although some priorities were considered unnecessary such as "when using Java ensure event handlers are input device-independent" (W3C, 2001) as the site was developed without Java script or applets. For example, frames, a web development technique whereby the screen is divided into sections, were not used for the website as they do not load correctly into older browsers.
The website was written entirely by hand in Notepad - a plain text editor - and the HTML was coded from scratch. The researcher decided to hand code the site so that any problems with the site would be easily identified and the coding changed accordingly. Use of web authoring tools, whilst fun and easier, have the unexpected effect of masking coding errors. For example, packages such as Microsoft FrontPage can generate HTML code which is completely contrary to the design goals of the language. The tool mimics HTML layout by masking codes such as `<FONT>`, `<BR>` (line breaks) and `<P>` (paragraph breaks). Therefore, some pages do not display correctly and it is difficult for the web developer to identify the problems without having an understanding of, and being able to correct the actual HTML code (see Appendix No. 5 for an example of the HTML code).

6.4.1 Use of forms in the website

The website incorporated several quizzes and each of these was constructed as a multiple HTML form application. Forms in HTML documents are generally used for two purposes: data collection and interactive communication. By using forms it is possible to conduct surveys and request feedback. Forms are also used to create an interactive medium between the user and the Web server with two-way query information. Each quiz had between five and seven forms which served as a response mechanism for the questions asked in each section. The forms were like a chain of data and when the final form in the chain is submitted by the user, all the information entered on all forms is bundled into an email message and sent to a designated recipient, in this instance the researcher.

244
This part of the website was more technical and moved beyond standard HTML tags. For a form to function correctly, it must consist of two distinct parts: the HTML code and the Common Gateway Interface (CGI) program (NAU, 2001). HTML tags create the visual representation of the form, while the CGI program decodes (or processes) the information contained within the form.

For the data from the multiple forms to be sent to the web server where the site is hosted, in this case the School of Management Information Systems at Edith Cowan University, and the data relayed to the researcher's email account. A CGI program was activated using specific HTML code, as follows:

```
<form action=address method=x> ... </form>
```

- form address is usually the address of a cgi-bin program - when the user submits the form, their location box shows
http://host/directory/programfilename?fieldname=word&fieldname=word directory is 'cgi-bin'. The usual function of the server is to prepare the html document, which is then sent back to browser for display, the address was set as
mailto:(s.bode@ecu.edu.au) and only worked if the user specified a send-mail server in their browser settings, otherwise they would receive an error message.

Field input

The form elements were implemented using the `<INPUT>` tag. This attribute determines what type of input is being requested. It is possible to have several different types of field: text and password fields, radio buttons, and checkboxes. All of these were incorporated into the quiz section of the Online Training Course.

Simple text input form:
The users were asked to respond to a series of questions and each input box was designed in a uniform and logical manner. The coding for the text input form was:

Question 1 <textarea name="response1" COLS="30" ROWS="10"> </textarea><p>

To produce a text box for the users' name (anonymous for this study), the NAME attribute defined the name of the input element. It was not displayed by the web browser, but was used to label the data when transferred to the CGI program. For example, the first input field has a NAME="user" attribute. If someone types "SME TEST" into the first input field, then part of the data sent by the browser will read: user=sme test.

Radio buttons

Radio buttons were also used to present the user with several options, in this case details on type of SME and location of business. A radio button creates a list of options for the user to choose from and only one option can be enabled at a time. In coding it must have the same NAME (in this example, "SME"). This is how the browser knows that they should be grouped together, and can then ensure that only one radio button using the same NAME can be selected at a time. Whilst the NAME tag remains the same the VALUE tag changes, for example:

<input type="radio" name="SME"value="owner/operator">owner/operator<p>
<input type="radio" name="SME"value="micro">micro<p>
<input type="radio" name="SME"value="small">small<p>
Figure 6.2 below, shows how a browser displays the above coding:

Submit and clear buttons

For the data to be sent to the researcher two additional buttons included in the <INPUT> tag "Submit and Reset" were included:

<input type="submit" value="send data"> <p>
<input type="reset" value="clear"> <p>
The Submit button sends all of the form information to the CGI program specified by the ACTION attribute. Without this button, the form would not be able to reach the CGI program and via the CGI reach the recipient. The Clear button allowed the user to clear all the data from the form prior to proceeding to the next module. The Clear option was included to give the SMEs a sense of control over the site and an increased feeling of security. This was achieved as once the data was sent to the CGI and the Clear button activated, the form was once again blank and could not be retrieved by other users using the BACK button of the browser. Instead they would receive the following error message: "Data Missing - this document resulted from a POST operation and has expired from the cache."

6.4.2 Summary of website development

The development of the website included the initial needs analysis, design and content considerations and implementation. Figure 6.3 below outlines the development of the website:

![Diagram of website development process]

Figure 6.3 Development of SME Online Training website
Once the site was implemented it was trialed on 18 SMEs and feedback on the usefulness of the site obtained. The feedback was in the form of comments made by the SMEs on a feedback form at the end of the website and a brief questionnaire presented to the participants at the conclusion of the trial. These results are discussed in chapter seven.

6.5 Website Design

The site was designed for learners with a limited background in computing and was designed and presented in a linear and logical fashion, whereby each learning session was followed by a question and answer session, followed by the next learning session. It was possible to skip a module by moving to the end of a session and clicking the "proceed to next section" arrow. Figure 6.4 presents a visual representation of the structure of the website:
The first element in designing the website was defining the content of the site and the content of a website should reflect the needs of the target audience (Cotlier, 2001, 49). The target audience for this website was Australian SMEs entering the realm of electronic commerce for the first time and using external expertise to strategically manage, design and implement their websites. The content therefore, had to reflect the requirements of the target audience, based on
information from an extensive literature review and the results of this study's data analysis.

The content of the website included an introductory homepage (index.html) which explained the aims and objectives of the project, introduced the principal researcher and the supervisor of the project (see figure 6.5 below). The purpose of the site was explained and the modules outlined and information on downloading a text version of the site was provided as an alternative delivery method.

The site was then structured with five modules covering the following topics:

1. How to find a website design consultant
2. Planning for your website;

3. How to engage a consultant;

4. How to negotiate a contract; and

5. Controlling and monitoring progress and post-engagement evaluation.

Training participants were advised that each module was followed with a brief quiz to test retention of the subject matter.

The second element in designing the website was the Graphical User Interface (GUI). The GUI describes the visual display presented to the user of the site and encompasses the organisation of the site, the page design, layout and use of graphics, buttons and links within the site and to external websites. There is very little useful design advice on websites in the literature. Many website developers have their favourite methods of design and equally as many find the same methods abhorrent. Contractorswebsite.com (2001) lists 12 common website faults that sensible developers should avoid, additional comments by the researcher are in italics:

Site is designed for the 5 – 10 year old age group. All pictures, no text and no substance or designed with too much technical or esoteric jargon and appears condescending. Therefore, the design should address the typical audience that will be viewing the pages and keep the content, grammar, and word usage in that range.
Site opens with a sound recorder, movies, thirty downloads, etc, and takes forever to load. *Can frustrate the viewer, freeze their computer and send them elsewhere.*

Frame on top of frames on top of frames. The monitor screen is small enough without breaking it up into even smaller pieces.

Spelling mistakes on every page and usually on the Home Page. The spellchecker was designed for a reason, it looks sloppy and unprofessional to have spelling errors on a site.

Millions of colours and high-resolution pages cannot always be viewed correctly on older browsers and systems.

White text on a black background is another questionable page color combination. Text appears to be much smaller when on a black background and is difficult to read.

Inconsistent page look and navigation is a top complaint by viewers, *therefore consistency in design is vital.*

Broken links on a site that has five pages is a sin that is unforgivable.

Sites that are browser-specific are another major complaint from users. Who wants to receive ‘Error on this page messages’ and who wants to ‘crash’ their computers every time they open a page?

Plugins [other software such as Flash] can make the viewer spend ten minutes downloading a plug-in, *and then having to re-booting so the plug-in works, before returning to your site.*
Pop-ups are the latest annoyance for viewers. Most pop-up with advertising messages that have little if anything to do with the main pages content. Since the advertising is linked to another site, it takes time to load and delays reading of the primary information. (contractorswebsite.com, 2001).

In designing the Online Training Course the above twelve points were taken into consideration and frames, pop-up advertisements and plug-ins were not incorporated in the design and development of the website. All the links were checked and the researcher ran "dummy" checks of the quizzes to ensure that they were received.

Effective design creates elements of persuasion, atmosphere and mood, and keeps the attention of a chosen audience. Effective design passes the message on and motivates the receiver...this treatment holds the message together and ensures that it attracts and engages the right audience. (Mitchell, 1999, p.13)

6.5.1 Colour and layout

Colour and layout were chosen to ensure the screen was uniform and not cluttered with excessive colours or graphics. The background was white with blue and burgundy text contrasting headings from textual information. The layout was enhanced with a blue border on the left side of the page and a "bar" at the end of each page to indicate the end of each section. This design was considered simple, effective and easy to read with clear guidance on how to move to other areas within the site or external to the site. The colour scheme and text fonts were uniform throughout each section, enhancing the cosmetic appeal of the site.
The site is quick to download, easy to navigate and unlikely to "crash" a user's computer.

6.5.2 Navigation of the site
Navigation within the site was straightforward with a "forward" button at the end of each module and quiz, a "home" button at the top of each page and hyperlinks to other websites with instructions on how to return to the original site. The design of the navigation considered the connections and links amongst the various areas of the site and formed an online organiser of the content and the links. Thus the site's navigation was intuitive and it was difficult for the participants to become "lost".

6.6 Module 1
Each of the modules was designed to address the weakest areas of the consultant engagement process as identified by this study.

The first module, *how to find a website design consultant*, was considered an appropriate starting point as the interview and focus group data showed the majority of SMEs relied on their Internet Service Providers, colleagues and friends or relatives. Only one of thirty SMEs prepared a proposal and two could not remember where they found their consultants. During the interviews many of the SMEs stated that they had relied on the above sources as they had no idea where to find a reliable website design consultant. Choosing an effective and efficient consultant was considered a key step in the consultant engagement process.
The module began with a definition of website design consultants and statistical information on the economic growth of this particular consultancy group.

Information was then provided on appropriate places to locate a website design consultant. Figure 6.6, below, is a screen view of module 1 and the information contained therein:

![Figure 6.6 Screen view of Module 1](image)

The first quiz following module 1, included an initial section with response boxes for the SMEs name (pseudonym only), business size and business location. The next part asked a series of five questions to assist the SME in absorbing the information. See Table 6.1 below:
Table 6.1 Questions asked in Quiz 1

<table>
<thead>
<tr>
<th>Q.1</th>
<th>What are some of the services website design consultants offer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.2</td>
<td>How would you define a website design consultant?</td>
</tr>
<tr>
<td>Q.3</td>
<td>List some of the ways you could find a website design consultant.</td>
</tr>
<tr>
<td>Q.4</td>
<td>What would some of the problems be in using friends as a referral?</td>
</tr>
<tr>
<td>Q.5</td>
<td>What are the benefits and disadvantages of using online directories to search for a website design consultant?</td>
</tr>
</tbody>
</table>

When the SME submitted the answers, they could clear the screen and proceed to the second module.

6.7 Module 2

The theme for module 2 was Planning and Strategy. The results for this study found that although 60% of the SMEs planned the development of their website, 78% of those SMEs specifically outsourced the planning strategy to the website design consultant. The remaining 40% did not plan their websites at all they expected their consultants to prepare a written plan for them. With little or no knowledge of electronic commerce strategy, the ability to develop an initial Internet strategy eluded the majority of SMEs.

The initial section of module 2 discussed general business planning, advising SMEs that a business plan could be used as the basis for building an electronic commerce plan. The focus of the site was not on building generic business planning skills, but information was provided for SMEs who wished to pursue business planning as a separate issue. Links were provided to three different websites that provided business planning guidance and expertise. Access was
also provided to Small Business Victoria's (2001) *Plan to Succeed* document (in pdf Acrobat format), this document could be viewed either online or saved to the viewers hard drive or disk. Small Business Victoria is a Government agency dedicated to providing assistance and advice to small businesses, primarily in Victoria, but also of value to other States and Territories within Australia.

The module then discussed Cragg's (1998) four components of an Internet Strategy, discussed clarifying objectives and deciding what was required from a website. A series of questions were asked to assist the SME in clarifying their Internet strategies including:

1. Do you want the consultant to help develop your Internet Strategy?

2. Do you want either yourself or your staff to learn how to maintain, update & manage your website?

3. Do you want to have an ongoing relationship with your consultant?

4. Who is responsible for liaising with the consultant?

5. Do you want to use the consultant as a sounding board for your ideas?

6. How much have you allowed for your website development budget?

7. Do you prefer to pay at end of project or in stages or by the hour?

8. Will you want a written contract outlining mutual responsibilities?

9. Do you want to implement an entire, fully functional e-transaction website?

10. Do you want to implement your website in stages?
The above questions were distilled from the areas identified in this study as being the most problematical for the case SMEs. Issues of client/consultant relationship, budget, contracts and mutual responsibility were strong themes identified in this study. Several of these themes were identified in earlier research, primarily Gable's (1991) 12 phase model of consultant engagement. Gable clearly identified the client/consultant relationship as a significant area of difficulty and this problem has also strongly emerged in the present study. Rather than just identify and confirm Gable's findings, it was considered important that steps were taken to assist practitioners (SMEs) in resolving the problems of the client/consultant relationship.

Thus the questions in module 2 were designed to stimulate the thought processes of the SME and to assist them in clarifying what exactly was required prior to the consultant engagement process. Module 2 was followed by a quiz following the same format as the first quiz (see Table 6.2 below):

<table>
<thead>
<tr>
<th>Q1: What are the four components of Cragg's Internet strategy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2: What are the benefits of incorporating primary &amp; secondary goals in your strategy?</td>
</tr>
<tr>
<td>Q3: What are some of the questions to be considered to help clarify your objectives?</td>
</tr>
<tr>
<td>Q4: Where can you get assistance with general business planning?</td>
</tr>
<tr>
<td>Q5: Is it necessary to have an overall business plan, prior to developing an Internet strategy?</td>
</tr>
</tbody>
</table>
6.8 Module 3

Module 3 focused on the steps required for Consultant Engagement. The module began with an initial discussion of consultant engagement within the broader context of outsourcing as examined in the Literature Review in Chapter Two. A significant problem area identified in the consultant engagement literature was the issue of consultant experience and/or expertise (Kumar, 1999; Krentzman, 1984; Murphy, 1999; Thong, 1996; Gable, 1991). Issues related to consultant expertise and experience fall into two broad categories: consultants misleading claims and perceived lack of consultant expertise. Gable (1991) in his analysis of consultant engagement found that consultants often appeared to have minimal relevant experience. The SMEs in this study lend support to this statement as they did not adhere strongly to the guidelines of Gable's (1991) model and 98% of them felt that their consultants lacked essential experience.

Therefore, Module 3 included the following details and steps to be considered by SMEs prior to consultant engagement:

Do you want your consultant to be an expert in their field?

Do you want your consultant to "tell" you what to do?

Do you want the consultant to be a technician following your instructions?

Do you want the consultant to be a partner, collaborating with your & your organisation?

The module then suggested that once the SME had determined the type of consultant required, they needed to consider some of the following steps:
i. Canvass the market - research who is out there.

ii. Approach several potential consultants for quotes and advice.

iii. Check their background - view previous work, ask for references and, most importantly, check their references. Don't leave this step out, it can end up costing a fortune if their references don't check out.

iv. Develop a written proposal for the project. Developing a written proposal will help you organize your thoughts into a persuasive document.

Further information was given on how to structure a written proposal based on criteria drawn from the Department of Public Works. (Department, 2001):

Purpose of the consultancy - state outcomes that are specific and measurable.

The scope of the project.

Timeframes for work to be achieved, including milestones with defined outcomes and service standards.

Resources to be allocated to the project. For example, equipment, departmental staff support.

Key personnel to be appointed.

Essential requirements that are to be satisfied to achieve a successful outcome.

Technical skills - the credentials of key personnel, systems.

Management skills - organisation, quality system.

Method - how the project is to be tackled;
Time performance - the ability to complete the project on time.

The last section of module 3 dealt with consultant evaluation, *How to ensure you get the right consultant for the job*. Again, several checkpoints were provided for the SMEs to consider prior to making a final decision on consultant engagement:

Do you trust what they are saying?

Does the consultant show interest in the project, or is it just another job?

Find out who will work on your project - Bode & Burn (2001) found that the majority of consultants accepted a project, only to pass the work to junior, less experienced staff.

Does the consultant have a feel for your business?

Does the consultant appear to have integrity?

Are they straightforward?

How do they talk about previous clients?

Do they maintain confidentiality about other projects?

Consider their strengths & weaknesses before making a final decision.

After consideration of the above issues the SMEs could then proceed to the third quiz, which asked a series of questions related to consultant engagement practices. Table 6.3 illustrates the questions asked in Module 3, quiz 3:
Table 6.3 Questions asked in Quiz 3

| Q1: What are two crucial characteristics that a consultant should have? |
| Q2: Name three points you need to consider prior to engaging a consultant? |
| Q3: Why is it important to check your consultants references? |
| Q4: What are some of the points you need to consider for a written proposal? |
| Q4: What are the steps you need to consider in evaluating the right consultant for your organisation? |

6.9 Module 4

Module 4 concentrated on contract negotiation. Developing a contract with the website design consultant was found to be an important step as discussed in the literature and supported by the evidence of this study. The results of this study found that the majority of SMEs engaging a consultant did not have a formal, written contract. Interestingly it was found that only two SMEs had negotiated a written, formal contract with their consultants and four had informal contracts. Many SMEs did not see the need for a contract, yet virtually all of them had difficulties with their projects and consultants.

On the consultant side it was found that only one consultant had any guidelines for handling SMEs as a group and the same one was the only one that had provisions to draw up a contract in consultation with the SME client. Consultants in this study preferred informal arrangement as did the majority of SMEs. Unfortunately this had the consequence of creating problems which a written
contract, even an informal "Letter of Agreement" may have alleviated. Some of the problems that could have been avoided if a contract had been negotiated, included:

project failure;
budget over-runs;
project incomplete;
website development not as requested;
lack of clarity in mutual responsibilities;
problems with payment options;
SME expectations not met

Module 4 advised SMEs of the points to be considered in drawing up a "Letter of Agreement" including negotiating the term of the agreement; defining the goals and objectives of the project; expected project outcomes; definition of reporting structure; timeframe of milestones and how to manage termination of the contract.

For SMEs considering a formal contract a hyperlink was provided for them to access the Department for Workplace Relations & Small Business Working with Contracts document (DEWRSB, 2001). The DEWRSB is an Australian Federal Government Agency whose aim is to support strong employment growth and the improved productive performance of Australian enterprises. The DEWRSB develops and implements policy initiatives, programs and support services for
small and medium enterprises (2001). The Working with Contracts document is provided on their website for any Australian SME to use as a legal and practical guide to facilitate contractual negotiations. The document provides information on contract negotiation, different types of contracts, standard form contracts and how to prepare contracts.

Rather than replicate the contents of the DEWRSB (2001) document, the hyperlink was provided to allow the SME to access the entire document, to be able to print it out if required and refer to it at their convenience. The document is clear and straightforward and explains contract issues in everyday language and was deemed suitable for the SME sector, an example of the document contents is provided in figure 6.7 below:
The final section of Module 4 dealt with dispute resolution and offered SMEs several methods of dispute resolution which could be implemented if the project was in danger of stalling or failing. The dispute resolution options discussed included mediation; use of an independent; and as a final resort arbitration, a formal process regulated by legislation whereby the parties agree to be bound by the decision of the arbitrator (ACDC, 2001).

Quiz 4 questions are presented in Table 6.4 below:
Table 6.4 Quiz 4

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: What are some of the problems that SMEs may encounter if they engage a consultant without a formal contract?</td>
<td></td>
</tr>
<tr>
<td>Q2: What is a Letter of Agreement?</td>
<td></td>
</tr>
<tr>
<td>Q3: What are some of the points that should be included in a Letter of Agreement?</td>
<td></td>
</tr>
<tr>
<td>Q4: Where would you find more information on contract development?</td>
<td></td>
</tr>
<tr>
<td>Q5: What are the three types of dispute resolution suggested by the Australian Commercial Disputes Centre (ACDC)?</td>
<td></td>
</tr>
</tbody>
</table>

6.10 Module 5

Module 5 was the final module in the Consultant Engagement Online Training Course for SMEs and focused on control and monitoring of the engagement process and post-engagement evaluation. Gable (1991) indicated that problems were more likely to occur in the consultant engagement process if ongoing control and monitoring of the project was inadequate or inefficient. He further suggested that SMEs lacked a methodical approach in the engagement, monitoring and evaluation of consultant projects. In this study it was found that only one third of the case SMEs considered that they had monitored and controlled the engagement process. It was also found that only 17% of the SMEs had conducted a formal post-engagement evaluation of the process and a further 20% had informally evaluated the process. None-the-less 97% of the case SMEs had, or were in the process of, severing the client/consultant relationship. Also, 80% of the SMEs in this study rated their relationship with their consultant as poor or very poor.
Therefore, Module 5 was structured as the final step in the consultant engagement process and also suggested that SMEs needed to consider whether an ongoing relationship with the consultant would be required. It was found in this study that many SMEs considered that once the project was complete and the website was up and running that no further work would be required. This was a naive and premature assumption in all the cases as all of the websites required continual updating. As the client/consultant relationship had become untenable in the majority of cases, many of the case SMEs found themselves in a position of having an electronic commerce enabled website, but being unable to update, maintain or alter the site without further assistance.

Module 5 suggested several ways SMEs could control and monitor progress of the project including: regular progress meetings with the consultant; regular telephone contact with the consultant; monitoring project milestones and being prepared for delays or project obstacles. It was further suggested that SMEs consider the following issues in control and progress.

Are the project timeframes being met?

Maintain regular contact to obtain feedback on project milestones.

Receive regular written or verbal reports on the status of the project.

Be prepared to deal with and resolve obstacles.

Are there any fee adjustments - if so have it put in writing.

Are you satisfied with the progress of the project - if not say so.
Give the consultant feedback - both positive & negative.

Ask the consultant for feedback on the engagement process.

For post-engagement evaluation SMEs were provided with a list of checkpoints to consider in the evaluation process:

- Does the website meet your expectations?
- Do all the links on the website work?
- Does each page of the site download quickly?. Check this yourself and have friends or family check using different computers & different browsers.
- Can you find your business through an online Directory or Search Engine? - Are you listed first, fiftieth or not at all?
- Consider whether you will have an ongoing relationship with your consultant for future maintenance & updating of the site.
- If you or your employees will be responsible for the future of the website have you considered training & development?
- Do you have a plan for the website six months or a year down the track? Will it be the same or do you want it to be fresh & dynamic?
- Would you use your consultant again or recommend them to a friend or colleague? If you do not want to recommend them, make sure they do not list you as a reference on their website.

The final quiz was based on the information in module 5 and included a feedback form stating: "We hope you have found this training guide useful in your venture into electronic commerce and consultant engagement. If you have any feedback
on the modules, please enter your comments here”. Quiz 5 questions are presented in Table 6.5 below:

| Q1: Why should a SME control & monitor progress of a project? |
| Q2: What are some of the ways that a SME can monitor progress? |
| Q3: How would a SME ensure milestones are being met? |
| Q4: Why is it important to give the consultant feedback? |
| Q5: Why is it important for a SME to conduct a post-engagement evaluation? |

The quiz and feedback form ended the Consultant Online Training Course for SMEs and was completed with a "return to the homepage" button. The following section presents the results from the feedback forms submitted by the SMEs who trialed the site and the results from the survey conducted one week after the trial.

6.11 Summary

This chapter described the method by which the SME Consultant Engagement Online Training Course (CEOTC) was developed. The steps covered included discussion of the design processes, including website structure, identification of the learning outcomes and the discussion of the content of the course. Each module and quiz were designed to complement and logically connect with each other. This created an online training course that was functional, practical, visually appealing and of value to the target population.

The following chapter discusses the results of the trial and evaluation of the Consultant Engagement Online Training Course.
7. Results – Trial of online training course for SMES

7.0 Introduction

This chapter discusses the results of the trial and evaluation of the Consultant Engagement Online Training Course (CEOTC) for SMEs, noting both its successes and shortcomings. The trial was developed to gauge the usefulness of the course as a learning tool for the SME community and to highlight any major or minor problems with the course, including technical and learning aspects.

Further, the CEOTC was developed to assist in bridging the gap identified in the Strategic Partnership Model (chapters two and five). It was found that the lack of planning evidenced by the SMEs indicated a misalignment between the first and second quadrants, SME business plans and strategies (quadrant #1) and consultant management strategies (quadrant #2). It was also suggested that SMEs tended to focus on the bottom left quadrant of the model (quadrant #3), the organisational infrastructure quadrant and consultants tend to focus on the bottom right quadrant (quadrant #4) Information technology/technical skills and expertise (see figure 5.6). This failure to align the four quadrants was suggested as an explanation for the high level of dissatisfaction indicated by both SMEs and consultants with the client/consultant relationship process.

The CEOTC was trialed by seventeen SMEs and one consultant. The consultant had, since the original interviews, ceased the website design side of the consultancy yet was still able to give valuable feedback on the CEOTC. Of the
other consultancies in the original cohort, one had ceased business, two had refocused their consultancies away from website design and two were unable, due to time constraints, to participate further in this research project. Nine of the sample SMES had not yet engaged a consultant for their website development, but were considering hiring a consultant in the near future, and eight SMEs from the original interview cohort. The object of the trial of the CEOTC was to gain high-quality feedback from the participants and to evaluate the usefulness of the course for the SME sector.

The sample for this section of the study, was also chosen via a deliberate theoretical sampling plan as outlined by (Minichiello et al, 1995. pp.162-164) and discussed in chapter three. The basic premise of theoretical sampling implies that participants are chosen deliberately to suit the parameters of the research. In this instance, 20 SMEs were approached via the Wanneroo/Joondalup Business Association and volunteers enlisted who had both an interest in website design consultant engagement and development of electronic commerce. The original interview cohort were also approached to participate in the trial.

The trial of the CEOTC was conducted from the SMEs place of work or home computer. Each SME had access to Internet Explorer or Netscape Navigator and were able to access the CEOTC Uniform Resource Locator (URL) http://www.knight-web.net/smeresearch/. The SMEs in the trial had a range of equipment from 486 Intel chip based personal computers with 8Mb RAM, running Windows 3.1 operating system through to Pentium III personal computers with 15
Gb hard disk drives, 64Mb RAM, running Windows 98 software. Browsers ranged from earlier versions of Netscape and Internet Explorer through to the current Netscape 4.73 and Internet Explorer 6. The CEOTC was designed to work effectively across system and browser platforms and the SMEs had no technical difficulties accessing and using the site.

The SMEs were sent an email that explained the structure of the course and the procedure for the trial. Each SME was instructed to begin the course by reading the information on the homepage of the CEOTC, they were then instructed to work their way through each module and answer each quiz in whichever order they preferred.

Each SME was also asked to fill in the feedback form at the end of quiz five and email the answers to the researcher. The suggested time allocated for the trial was between two and three hours. This was to ensure the SMEs had enough time to read and respond to each section of the CEOTC. The participants were also given the option of completing the course at one sitting or doing the course over several days to fit in with other time and work commitments.

To gain a clear understanding of the data and the nature of the sample population, descriptive statistics were collected. These included characteristics of the SMEs and geographic location. The SMEs were asked to provide a name (pseudonyms were encouraged to ensure the anonymity of the participants), the size of the business and whether the business was metropolitan or regional

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1 Wanneroo and Joondalup are newly developed and rapidly growing urban corridors of the Perth Metropolitan region.
Western Australia. The CEOTC had provision for location selection Australia wide, which was not relevant for the initial evaluation, but will be of use for future research.

The CEOTC included a feedback form following the final quiz and it is this information that is presented and analysed in this chapter. In keeping with the qualitative nature of this study, the analysis follows the interpretivist tradition whereby the goal is to describe meanings, understand participants' definitions of the situation and examine how objective realities are produced. Interpretive research is fundamentally concerned with meaning and seeks to understand participants' definition of a situation. The data from the feedback form was entered into the N*Vivo database, coded and then common patterns and themes identified. Themes identified in the CEOTC trial included:

- Usefulness of the site (as a learning tool)
- Navigation of the site
- Overall appeal of the site
- Overall satisfaction with the site
- Technical aspects of the site

Figure 7.1 below, is a N*Vivo screen view of one section of the data set with the coding nodes in the right hand box, indicating the coding categories:
had access to the tutorial you have provided I would have steered all of my clients toward it.

I found this site to be most helpful full of wonderous ideas that enabled me to proceed where at other times come to a full stop. I found the site easy to use and advice on how to engage a consultant to be excevaluable. keep up the good work small business

information like this to help guide us.

I understand the reticence that some businesses have with

Figure 7.1 Coded transcript with coding nodes in N*Vivo

In addition, a brief questionnaire was administered to the participants in order to consolidate the information from the feedback forms. The questionnaire was designed to gauge the SMEs response to the CEOTC as an instructional tool and to evaluate the site in terms of functionality, ease of navigation, structure and design. All of the participants returned the questionnaire. The construction of the questionnaire was based on a five point Likert scale and the results presented as a table.
All participants were given a Statement of Disclosure and Informed Consent. All participants were voluntary and there was no coercion to participate and no reward offered for participation. Written consent was obtained from all participants and participants were informed that they could withdraw from the research at anytime without penalty. Anonymity was guaranteed for all participants and all feedback forms and questionnaires were given coded numbers and not referred to by name in this study.

The intended learning outcomes of the CEOTC was to provide SMEs with the ability to plan the implementation of electronic commerce and to select the most appropriate website design consultant for the project. As discussed in chapter six the objectives of the course included: understanding consultants; business planning; Internet strategic planning; consultant engagement; contract management and project evaluation and assessment.

7.1 Characteristics of the participants

Nine of the SMEs were located in the Wanneroo/Joondalup region of Perth, Western Australia the remaining eight were scattered throughout the Perth metropolitan region and the consultant was based in the metropolitan region. Only one of the SMEs employed no staff, whilst ten employed 1-5 staff. Owner/Operator only SMEs and those with up to five employees were classified as micro businesses (ABS, 2000a) and the majority of the participants belonged to this category. Table 7.1 summarises the SMEs employment profile.
The majority, (69%) of the SMEs were new businesses, in operation for less than two years, with a significant proportion of business start-ups (in business less than 12 months). Established businesses were in the minority, this result is in direct contrast to the SMEs in the original interviews and focus groups (see table 7.2 below). A possible explanation for this can be found in the majority of the sample population originating in the Wanneroo/Joondalup area, a high growth area for new business start-ups. (Joondalup, 2001).

Table 7.2
SMEs – Background Information

<table>
<thead>
<tr>
<th>Length of time in business</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>5</td>
</tr>
<tr>
<td>1-2 years</td>
<td>6</td>
</tr>
<tr>
<td>3-5 years</td>
<td>3</td>
</tr>
<tr>
<td>6-10 years</td>
<td>1</td>
</tr>
<tr>
<td>10-20 years</td>
<td>2</td>
</tr>
</tbody>
</table>
The majority (90%) of the SMEs were retail stores with 10% in the service industry. This is reflective of the results in chapter five as the thrust of the research for this study was on business to consumer electronic commerce, therefore retailers were the primary SME category.

7.2 Learning Outcomes

The intended learning outcomes of the CEOTC was to provide SMEs with the ability to plan the implementation of electronic commerce and to select the most appropriate website design consultant for the project. The objectives of the course included: understanding consultants; business planning; Internet strategic planning; consultant engagement; contract management and project evaluation and assessment.

The development of an online learning tool as opposed to a more traditional text based option was a deliberate choice. SMEs have varied skill levels in regard to computers and the Internet and it was felt that using the CEOTC would enhance the skill levels of SMEs and de-mystify online learning for those with limited computing skills. It was also possible for the SMEs to download a print version of the CEOTC from a link on the introductory page of the CEOTC website as an alternative to undertaking the online course. Several of the SMEs mentioned this option in the feedback form and made positive comments on its usefulness as an additional tool that allowed for ready reference to the information on an ongoing basis.
To evaluate the CEOTC as an instructional tool a standard evaluation method had to be identified. Several researchers have developed and tested instructional systems design models (ISD) for evaluating educational technology (Jones & Paolucci, 1999; Kemp, Morrison, & Ross, 1994; Seels & Glasgow, 1998). Whilst many of these models are designed to evaluate large-scale programs, the principles of the models are useful when evaluating any type of educational technology, including the one in this study. The majority of ISD models focus on three distinct areas for evaluation: instructional objectives, delivery system and learning outcomes see Figure 7.2 below: (Jones & Paolucci, 1999, p.18).

<table>
<thead>
<tr>
<th>Instructional Objectives</th>
<th>Delivery System</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Domain</td>
<td>Locus of Control</td>
<td>Cognitive skills</td>
</tr>
<tr>
<td>Learner Profile</td>
<td>Time/Place</td>
<td>Lower order</td>
</tr>
<tr>
<td>Task characteristics</td>
<td>Media</td>
<td>Higher order</td>
</tr>
<tr>
<td></td>
<td>Connectivity</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 7.2 Instructional Systems Design (Jones, 1999)*

Instructional objectives

According to Jones (1999) learning is achieved when a permanent change in thinking, attitude, or behaviour occurs (p.19). Therefore, the main objective of the CEOTC was to facilitate this process, whereby the online training course effected a permanent change in the SMEs knowledge and understanding of consultant engagement issues. The sub-categories within the instructional objectives component included the *learning domain*, in this instance the CEOTC website. The second sub-category, the *learner profile*, was deemed to be the computing skill level and ability of the SMEs in the trial group. Finally, the *task*
characteristics, involved a clear description of the topic to be learned and the steps necessary to achieve this objective, in this study the task characteristics involved each of the five learning modules and quizzes. (Jones, 1999, p.19).

Delivery System

Basically, the delivery system component of the ISD is the method by which the information is delivered to the learner. Jones (1999) suggests that the delivery system needs to be reflective of, and to meet the instructional objectives component of the ISD. He further suggests that the delivery system can be either technologically based or traditional print based methods. The advantages of technological methods are that they can be interactive, suitable for remote or distance learning and capable of integrating multimedia technologies (Jones, 1999, p.20).

The delivery system is again broken into several sub-categories including: locus of control, time/place, media and connectivity (Jones, 1999. p.20). Locus of control signifies the control factor in the instructional design and can be either learner, instructor or technology centred (Jones, 1999. p.20). In this study the online training course was designed to allow the learner to be the locus of control. The site was designed to allow the learner to access the information at a time and place of their choice, the modules were structured to enable the learner to work at a pace to suit them and the quizzes could be answered at their convenience. Further, having the option to download a print version of the CEOTC allowed further learner control over how the information was accessed and absorbed.
The time/place component was asynchronous, the learner and instructor were located in different physical environments and the learning could be conducted at any time. This ability to learn at any time is considered eminently suitable for the SME sector, a sector that traditionally are unable to attend training sessions within regular business hours – particularly the owner/operator or micro-business SME. The quizzes were emailed to the instructor and feedback provided when assessed.

The media for the CEOTC was multi-media and included text, graphics, hyperlinks and was interactive. The interactivity increased learner control over the site as each individual could choose which modules and which sections within modules were important. For example, in module 4 Negotiating a Contract, generic information about contract negotiation and development was introduced and explored. For those requiring in-depth information a hyperlink was given to the Department for Workplace Relations and Small Business Working with Contracts ((DEWRSB, 2001). The link, when activated, loaded a document to the screen which could be read, saved or printed. This level of interactivity allowed the learner to control how much information they required at any given time and to save information which may not have been considered immediately relevant, but useful at a later date when the SME actually initiated a consultant engagement process.

Learning outcomes

Jones (1999) stated that learning outcomes focus on three areas: cognitive, performance and attitudinal learning. The CEOTC produced an environment that
was easy to follow and offered several layers of information, which could be accessed or skipped dependent on the SMEs prior skills, abilities and knowledge. This allowed a level of self-assessment by the SME and increased learner control over the learning environment. The CEOTC was designed to provide the ability to build on each individual learner’s intellectual skills by allowing them to choose how much and to what depth of interactivity they required. Each quiz was developed to enhance the cognitive skills of the SMEs, by testing memory retention and understanding of key concepts in each module.

The three evaluation methods of the ISD (instructional, delivery system and learning outcomes) were used in this study to address the effectiveness of the CEOTC to the SME sector. The three components were used as the basis for the design of the questionnaire with the questions being reflective of the all three areas of the ISD.

7.3 Questionnaire results
A questionnaire was emailed to the SMEs involved in the trial and all participants were willing to fill in the questionnaire. The questionnaire covered the three areas identified in the instructional systems design method outlined above and included questions on ease of navigation, overall appeal of the site and quality of content. The number of questions was limited to 12, allowing four questions for each area of the ISD. The construction of the questionnaire was based on a five point Likert scale, ranging from Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. The following table (7.3) presents the results of the questionnaire:
Table 7.3 Results of questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall, are you satisfied with the Consultant Engagement Online Training Course</td>
<td>15</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. The site took too long to download</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>3. The site was easy to navigate</td>
<td>15</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. The module headings were appropriately named</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. It was easy to locate sections that you were interested in</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. The instructions were easy to follow</td>
<td>16</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. The colour scheme and layout was attractive</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. The quizzes helped me retain the information</td>
<td>5</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. The content of the site was relevant and useful</td>
<td>16</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. The links to other sites were useful</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. Using the CEOTC was enjoyable and informative</td>
<td>14</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12. I would like to participate in further online training courses</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Overall it was found that all of the participants agreed or strongly agreed that they were satisfied with the CEOTC as an instructional tool. 95% of the SMEs either strongly agreed or agreed that the site was easy to navigate. 100% strongly agreed that the module headings were appropriately named and 89% found it easy to locate sections within the website. The colour scheme was considered attractive with 22% of respondents indicating a neutral response, but none disagreeing. 100% of the SMEs either strongly agreed or agreed that the content of the site was useful and relevant to them and this is supported in the comments section. All respondents were positive about the general format of the course and
all agreed that the training course was enjoyable and informative. 78% indicated they would be willing to participate in future online training courses of a similar nature. The next stage of the evaluation process was an analysis of the results from the feedback form.

7.4 Feedback Form Results

All of the participants who evaluated the CEOTC sent in a feedback form with their comments regarding the course. The feedback from the participants generally fell into five distinct categories: 1) usefulness of the site; 2) navigation of the site; 3) appeal of the site; 4) overall satisfaction with the site; 5) technical aspects of the site.

1) Usefulness of the site

All of the participants indicated that they found the course to be useful as a learning tool and instructional aid. Overall the participants stated that the course gave them invaluable information regardless of whether they had engaged a consultant or were considering engaging a consultant. Typical comments included:

This training course suits it purpose down to the ground, I haven’t come across anything as useful for the small business man for many a long year;

I found it interesting to go through the course, because it occurred to me that there was a whole lot there that I had no idea of and I hadn’t really thought about a lot of those things like contracts when I worked with my consultant.
The next section deals with navigation of the site and whether participants had any difficulties in finding their way around and through the course.

2) Navigation of the site

The majority of the participants found the site easy to navigate, but several noted that it would have been useful to have a button that allowed one to skip a particular quiz and continue with the modules. There was a comment given that by not having such a 'skip to next module' button, participants were coerced into answering the quizzes in order. It would be quite possible to include an option to skip the quizzes and include at the end of each quiz page an option to continue to the next module.

3) Appeal of the site

No suggestions were given on improving the design or interface of the course, although four were ambivalent about the colour scheme. The majority of the respondents indicated that the overall design was appealing and well set out.

4) Overall satisfaction with the site:

The response from the participants was overwhelmingly positive in regard to overall satisfaction with the site. There were no negative comments received and participants indicated they were grateful to have the opportunity to make use of the course and several participants requested permission to allow the site to be accessed by colleagues. One Industry Association invited the researcher to address a meeting of SME owner/operators and give a demonstration of the website to members. The consultant suggested that the CEOTC would have
been a valuable tool for his consultancy and assisted in his work with the SME sector.

This site is exactly what every SME needs in order to effectively PLAN their way into e-commerce. I would like to direct interested colleagues to your site if that's ok with you.

If I'd had access to this site when I first got my consultant I would have been in a far better position to negotiate exactly what I wanted from my website. I'd steer anyone to this site who's considering starting their own website.

Pre GST I ran a small Web Site Consultancy business for budget websites. I provided a complete solution for each client and all transactions were done on a "hand shake". Had I had access to the tutorial you have provided I would have steered all of my clients toward it.

I found this site to be most helpful full of wonderous (sic) ideas that enabled me to proceed where at other times I have come to a full stop. I found the site easy to use and the advice on how to engage a consultant to be exceedingly valuable. keep up the good work small business needs information like this to help guide us.

The next section deals with technical aspects of the site.

Technical aspects of the site

The majority of the respondents were satisfied with the technical aspects of the site. One concern raised was that links to other sites from the course were slow to load for three of the respondents and one respondent had difficulty with downloading and using the acrobat reader in order to gain access to the print version of the contents of the site. The site was designed for cross-platform compatibility, but it was found that the site worked more efficiently within the Internet Explorer browser.
For some users of the Netscape browser the quizzes were situated to the left of
the screen and partially obscured by the left hand bar of the screen. This problem
was eradicated if users changed their screen resolution to a lower setting. It was
also noted by one user who used both browsers, that the site loaded faster when
Internet Explorer was used. The majority of respondents indicated that the site
was not too technically sophisticated, yet not condescending to the target
audience.

I understand the reticence that some businesses have with
technology. There are certainly a number of technologies that I have
taken up just because it seems to fit, the time seemed right, and I
could manage it. I stated using MYOB on my computer because it
was easier than doing it all by hand. But leaping from learning how
to do MYOB to developing a website was too much of a jump, so I
need to get a consultant in and I've always shied away from them
because I prefer to do technical things myself. I found this course
valuable and technically easy to use without it being too simplistic,
now I have the backup I need to get in outside help with developing
our dot com.

7.5 Implications for the study
The results presented in this chapter highlight the usefulness of an online training
course to SMEs and consultants. In terms of the strategic partnership model
discussed in chapters two and five it was apparent that there was limited
development of strategy and planning by the SMEs and serious gaps were
evident in the fit between the SME’s business strategy and organisational
infrastructure and processes and the consultant’s management strategy. In
particular, it was suggested that SMEs tended to focus on quadrant #3 of the
model, SME internal infrastructure, processes and skills and failed to focus on
quadrant #1 SMEs business plans and strategies. On the other hand, consultants
focused on quadrant #4 technical skills to the detriment of quadrant #2 management strategies. It is suggested that the use of the CEOTC forced SMEs to consider quadrant #1 and assess their strategic requirements prior to consultant engagement. It is further suggested that whilst consultants indicated they focused on quadrant #2, the evidence suggests they did not. Again, use of the CEOTC would assist consultants in assessing management strategies for dealing with the SME sector. Therefore, it is suggested that the ability to align the quadrants has been enhanced by use of the CEOTC for the sample SMEs in this study.
7.6 Summary

This chapter has described the results of the evaluation process for the online training course. Evaluation was done on the usefulness, content, navigation, appeal and overall satisfaction with the course. The evaluation was conducted by seventeen SMEs and one consultant through a brief questionnaire and an online feedback form.

The evaluation was designed to gauge the usefulness of the course as a learning tool for the SME and consultant communities and to highlight any major or minor problems with the course and the technical aspects of the website. Minor
problems were identified and these can be rectified prior to disseminating the
course throughout the SME community. It was found that all four quadrants of
the Strategic Partnership Model were misaligned and that use of the CEOTC
would create alignment of the quadrants. The next chapter discusses how
strategic alignment was achieved using the CEOTC and also presents the
discussion, conclusions, limitations and suggestions for future research based on
the current study.
8. DISCUSSION AND CONCLUSION

This chapter outlines the main conclusions of the research into Australian Small and Medium Enterprises, Internet strategy, consultant engagement and strategic alignment processes. Firstly, a summary of the main findings is presented, then interpretations of the research findings and implications for researchers and practitioners, including limitations are then discussed. Finally, suggestions for possible future studies based on the research findings are also outlined.

8.1 Summary of the main findings

This thesis set out to address five specific research questions:

1. What explicit e-business strategies do SMEs employ prior to development of a website;

2. What is the structure of the engagement process of website consultants;

3. How are the alignment of business and web development strategies managed;

4. To what extent do SMEs feel their individual business needs are understood by website design consultants; and

5. What critical development factors can be identified to enable the successful implementation of online business to consumer strategies for SMEs?

These questions have been explored through a review of the relevant literature and qualitative, cross-case analysis using documentary analysis, interviews and
goals verbally, they tended to rely on ideas, memory and hopes for the future success of their online venture. Only seven of the SMEs had allocated an ongoing budget for future maintenance and development of the sites. None of them had clearly articulated or formalized future aims, identified timeframes or developed clear strategies for achieving any of their objectives.

It was found that only 20% of the SMEs planned the development of their website. Of this, 78% of the SMEs who planned their websites specifically outsourced the planning strategy to the website design consultant. The remaining 80% did not plan their websites at all. Only one of the SMEs had a written plan for their website development prior to consultant engagement. The remainder either explicitly or implicitly expected their consultants to strategically manage their electronic commerce projects and prepare a written plan.

All of the consultants explicitly stated strategic management skills of some kind and emphasised project management skills. Yet, when asked if they were satisfied with the level of strategic planning and management offered by their consultants 93% of the SMEs were either dissatisfied or extremely dissatisfied with the strategic skills of their consultant.

The majority of the SMEs did not have a general business plan, therefore planning for electronic commerce would have been a difficult task. Planning did not appear to be a core business skill or task for the case SMEs. This lack of planning was borne out by the literature where it was found that many SMEs did not engage in strategic planning for their business. It was suggested that small businesses, in particular, tended to focus on day-to-day survival, including dealing
with immediate issues that may impact on their business, such as profits, taxation and other areas of compliance (CEC, 1996; DIST, 1998).

The literature also suggested that SMEs lacked both the in-house skills and financial resources necessary to facilitate planning (DIST, 1998; Thong & Yap, 1996). Time was also an integral factor that tended to hinder SME planning processes. The majority of the SMEs in this study did not have the time required for short or long-term business planning or the development of an Internet or electronic commerce strategy.

This study found that the consultants, in several cases, produced useful and generally functional websites for the SMEs. Although it could be suggested that the consultants ability to assist SMEs in the strategic planning required to successfully market and use their sites to best advantage was less than adequate.

In answering research question one therefore, it can be stated that whilst the majority of the case SMEs in this study thought they had e-business strategies, the evidence clearly indicated they did not have explicit e-business strategies prior to development of a website. Lacking the resources, skills and time to plan, the propensity to outsource electronic commerce strategic management was considered a strong possibility for the case SMEs. This factor was borne out by the findings of this study where the majority of the SMEs who had planned their sites, specifically outsourced the strategic management of their electronic commerce and website development. It was found that the main problem with outsourcing strategic management of electronic commerce was ensuring that the
consultant chosen had the appropriate strategic skills to manage the project effectively and efficiently. A secondary problem the study identified was the SMEs inability to identify their own objectives and communicate this effectively to their outsourcing partner.

It may be suggested that if the SMEs had an understanding of the four factors of Cragg’s (1998) Internet strategy development model – goals, content, process and function, then the formulation of an explicit electronic commerce strategy could have been achieved. An awareness of the four areas required for successful strategy development as outlined by Cragg (1998), may also have assisted the case SMEs in successfully outsourcing the strategic management of their electronic commerce implementation.

The Strategic Partnership Model would also be a useful tool in assisting SMEs identify whether they focus on one quadrant to the exclusion of the other three, thus unbalancing the alignment between client and outsourcing partner. The results of this study strongly indicated that the SMEs in this study were weakest in quadrant #1 – business planning and strategies and focused most strongly on quadrant #3 – internal infrastructure, processes and skills. The SMEs tended to assume that the consultants would manage the website development for them, yet the results indicated that the consultants were particularly weak in quadrant #2 consultant management strategies and varied in strength in quadrant #4. This created a misalignment between all four quadrants, see figure 8.1
Without an awareness of the steps required in achieving a strategic direction the case SMEs placed themselves in a vulnerable position with the consultants. It is extremely problematic outsourcing strategic management if one does not have any understanding of what exactly has been outsourced. The case SMEs in this study exhibited a certain naivety in their knowledge of general business planning and e-business strategy development. This naivety created problems with the outsourcing relationship, where it was found that the SMEs felt the consultants had failed, yet the consultants were not given any clear direction for what was actually required.
8.3 Q2: What is the structure of the engagement process of website consultants

The analysis of the interview data showed that Gable’s (1991) 12-phase model is a worthwhile tool for evaluating SME involvement in engaging external consultants to design their website. One aspect of this model that is particularly useful is its potential for clarifying the mutual roles and obligations of the client/consultant relationship. The model could be used in order to guide negotiations and relations between the client and the website design consultant to achieve a more successful outcome. It was found that none of the case SMEs fully adhered to Gable’s (1991) 12-phase model and all of the SMEs in this study felt a strong measure of disillusionment with the consultant engagement process and also with the resulting electronic commerce strategy. In fact, it was found that 97% of the SMEs had, or were in the process of, terminating the consultant/client relationship and either moving the project in-house or actively seeking an alternative outsourcing partnership.

Gable’s (1991) 12-phase model dealt with three areas of consultant engagement processes: preliminary evaluation, engagement process and post-engagement followup see figure 8.2 below. This study found that the primary problem areas in the consultant engagement process were spread across all three areas of the model and seven of the twelve steps. Gable (1991), identified three areas where SMEs could improve their consultant engagement process:

- assess client and consultant compatibility (phases 5, 6, 7 & 8);
• identify and address specific organizational roles (phases 1, 2, 11 & 12) and
• accommodate evolving project objectives (phases 11 & 12) [Gable, 1991, p.91].

Figure 8.2 Gable’s (1991) 12-phase model for consultant engagement

The three areas identified by Gable (1991) as being problematic are reflected in the findings of this study. Gable’s (1991) 12-phase model sought to identify the steps required for successful consultant engagement. It was implicit in the model that each step should be followed in order to increase the potential for engagement success. Each of the thirty SMEs and the five consultants in this study were analysed using Gable’s (1991) model and areas where they did not adhere to the steps were identified and presented in chapter five.
It could be suggested that all 12 steps of Gable’s (1991) model may be too formal for the Australian SME sector. In Singapore, where Gable conducted his studies, consultants were engaged through a government program that was responsible for vetting consultants on behalf of the Singaporean SME sector. Therefore, several of the steps were completed prior to the Singaporean SME considering consultants for engagement. Also, the pool of consultants was much smaller, having been initially vetted by the government and unsuitable or unethical consultants weeded out. This made the task of outsourcing negotiations much easier for Singaporean SMEs although, according to Gable (1991) problems were still encountered.

In Australia there is no government controlled regulatory body for consultants and, in fact, Australian consultants do not even have a code of practice for self-regulation. Unless a formal contract has been negotiated no-one is accountable if the process fails. Therefore, it was found in this study that the problems within the client/consultant relationship were greater than in Gable’s (1991) studies.

In spite of this finding it is suggested that strict adherence to Gable’s 12-phase model may not be appropriate in the Australian environment. As previously discussed many Australian SMEs do not have the time, money or internal resources to plan for website development. Therefore, the likelihood of SMEs preparing “Request for Proposal” documents, evaluating incoming proposals and negotiating a contract is highly unlikely. This has been borne out by the results of this study when it was discovered that only 10% of the SMEs had canvassed the market (step 3), and only one SME had developed a “request for proposal” (step
4). Further, it was found that two of the steps were not considered at all by the SMEs, step 6 (evaluate proposals) or step 9 (announce selection).

None-the-less, several steps in Gable's (1991) 12 phase model are appropriate for the Australian SME sector and would assist in alleviating some of the problems in relation to the client/consultant relationship.

In the results of the interviews and focus group data presented in chapter five, it was found that only two of the case SMEs had fully checked references (step 5 in Gable's (1991) model) by consulting the refereed websites suggested by the consultants and contacting the businesses for confirmation. A further 50% had checked refereed websites, but had not confirmed the accuracy and authenticity of the refereed sites. Relying on partial references is not recommended as good business practice.

In the course of this study it was found that consultants had misrepresented their reputation by either deliberately or inadvertently including dubious or fictional refereed sites. For example, it was found that one consultant included three websites as examples of their skills and stated that they were client sites. Yet, it was found on further investigation that the websites belonged to the consultant and could not be considered as referees, although could be seen as a showcase for their web development skills. Another consultant included on their site several websites of previous clients who, when informed that they were listed as refereed client sites, were quite surprised as they had all severed their ties with the consultants and would not be prepared to be considered referees.
Although reference checking may seem a small and irrelevant step, it is suggested by the findings of this research that it is in the best interests of the SME to confirm authenticity of the reference, as appearances can be deceptive. The mere presence of a client website is no guarantee that it was in fact a client of the consultant or that the client was satisfied with the result or that it was not a collaborative project with the consultant having minimal input.

Another step that is crucial to successful consultant engagement and one that is almost completely overlooked by Australian SMEs is negotiation of a formal, written contract. The results of this study showed that only two SMEs had negotiated a written, formal contract with their consultants and four had informal contracts. Without some form of contractual agreement the SME is placed in a vulnerable position within the client/consultant relationship.

Contract law in Australia in the traditional model involves consideration, objective consensus, freedom of contract and the idea that business people strike the bargain that suits them best (Seddon, 1993). Implicit in this concept is the assumption that commercial players in contract negotiations are on a broadly equal footing in their dealings. It is uncommon for Australian SMEs to have an understanding of contract negotiation and contract law. Most of the SMEs in this study indicated that they felt they would need legal representation in order to facilitate a contract with the consultant. This is a slightly erroneous point of view, as simple contract negotiation can be facilitated by an SME, as long as they are informed of the steps required and the pitfalls to avoid.
A problem area identified by this study and supported by the research is the issue of the client/consultant relationship. (Kumar, et al 1999; Murphy, 1999; Thong & Yap, 1996; Gable, 1991) all indicated that client expectations and communication play a critical role in the success of the client/consultant relationship. This study found that the SMEs expectations of the client/consultant relationship were unrealistic and their perception of what occurred as opposed to what actually occurred was also problematic. The SME expectations and perceptions may have been affected by faulty memory, negative or positive experiences of the engagement process and lack of objectivity.

For example, the project timelines set by the SMEs when engaging the consultants, were based on expectations rather than explicit agreement between the client and the consultant on project completion times. Over 95% of the SMEs did not state a completion time for the project and surprisingly all of the consultants were equally vague on expected completion times.

Research examined in chapter two showed that one of the critical factors leading to consultant engagement success was consultant experience or expertise (Hunter, 2002; Kumar, 1999; Krentzman, 1984; Murphy, 1999; Thong, 1996; Gable, 1991). The SMEs in this study were questioned on their perception of consultant expertise in strategic management, website design skills and consultant experience. 98% of the SMEs in this study felt that their consultant lacked either the appropriate expertise in website design, electronic commerce and strategic management and/or lacked experience as a consultant. Hunter (2002) in his case study on Song Book Music found that the consultant was
lacking in knowledge and experience required for the successful outcome of the client consultant relationship. He further suggests that although the project was completed, it was considered 'unsuccessful' by the SME as it was essentially faulty (Hunter 2002 pp58-61). Hunter's findings are reflected quite strongly in the results of this study.

One aspect that may have alleviated these problems in the current study, would have been adherence to step 10 (review and refine mutual responsibilities), in Gable's (1991) 12 phase model. The results of this study indicated that only 17% of the SMEs had reviewed the mutual responsibilities of the project and 30% considered that they had monitored and controlled the engagement process. Interestingly, only 17% of the SMEs had conducted a formal post-engagement evaluation of the process (step 12), whilst a further 20% had informally evaluated the process.

In answering research question two therefore, it can be suggested that the structure of the engagement process of website design consultants by Australian SMEs appears to be an informal and ad-hoc process. The consultant engagement process is reflective of the planning and strategy development conducted by the case SMEs as discussed in relation to question one above. In the literature it was suggested that SMEs tend to be reactive in their planning and business activities (Kotey, 1998; Robinson, 1984), resulting in a negative impact on the performance and success of the enterprise. Kotey (1998) further suggested that in relation to planning and strategy development, SMEs tended to fall into continuum of types from proactive to reactive.
Kotey (1998) stated that reactive SME operatives were found to be passive and imitative while proactive SME operatives tended toward leadership and higher success rates in business dealings (Kotey, p.9). Raisinghani (2001) discussed reactive and proactive SMEs in the context of electronic commerce "from a proactive strategy perspective, entering the e-business world takes something of a leap of calculated faith [whereas reactive strategy] is a leap of blind faith" (Raisinghani, 2001 p.601).

The findings of this study tend to suggest that many Australian SMEs are reactive in their planning and strategy formulation. It is further suggested that this reactive tendency flows through to SMEs outsourcing activities, with SMEs engaging consultants based more on blind faith as opposed to calculated and concomitantly logical and reasoned faith.

8.4 Q3: How are the alignment of business and web development strategies managed?

The literature indicated that one of the factors leading to the success of online enterprises was the ability of both SMEs and website design consultants to align business processes with electronic commerce strategy [Angehrn, 1997; Bergeron, 1998; Burn, 1997; Cragg, 1998; Poon, 1995; Sauer, 1997]. As mentioned above, the consultants in this study explicitly stated that they offered strategic management skills and placed a strong emphasis on their project management skills.

This result was confirmed by the results of the content analysis of the consultants’ websites in which consultants claimed strategic management skills as a major
selling point of their services. The consultants tended to offer a "total solution" for a SMEs electronic commerce requirements and stated they could implement a website that would increase the SMEs profits exponentially.

In the results it was found that the SMEs in this study who had planned their electronic commerce implementation, specifically outsourced the planning strategy to their consultant. The results and analysis of this study indicate that strategic alignment was misaligned across the four quadrants of the Strategic Partnership Model.

For this study, strategic alignment was seen as the fit between the SME's business strategies, consultant management skills, SME organisational infrastructure and consultant experience and expertise. The resultant strategic partnership model was based on the research and research gaps identified in the literature review in chapter two of this study. The strategic partnership model included the strategic alignment of the SMEs organisational infrastructure and processes and the SMEs business strategy with the consultant's SME management strategy, effectively creating a new model, (see figure 8.3 below).
All four quadrants of the strategic partnership model were required to be in alignment to facilitate a successful outcome in the outsourcing of the SMEs electronic commerce initiative. It was suggested, in chapter two, that a misalignment of any one of the four quadrants could result in the success of the SMEs electronic commerce initiative being adversely affected.

The results of this study clearly indicated that the four quadrants were misaligned. It is therefore suggested that SMEs tended to focus on the bottom left quadrant of the model, the SME *internal infrastructure, processes and skills*, quadrant #3 and neglect quadrant #1 *plans and strategies*. Consultants on the other hand, tend to focus on the bottom right quadrant *technical skills and expertise*, quadrant #4 and neglect quadrant #2 *management strategies*. This failure to align the quadrants
could provide an explanation for the high level of dissatisfaction indicated by both SMEs and consultants with the client/consultant relationship process and the failure of SMEs to adequately plan their entry to e-business.

To create a more strategic fit it was suggested that SMEs outsource electronic commerce strategic planning as well as the more technical and design aspects, thus creating a new dimension of strategic alignment, the fit between the consultants electronic commerce strategies and the SMEs strategy requirements.

This study suggests that there is a significant gap between the intended strategies of the SMEs and the actual electronic commerce strategy implemented by the consultants. Four of the five consultants in this study did not have a written policy for working with SMEs. Only one consultant had any guidelines for handling SMEs as a group and all of the consultants expressed the view that informal processes worked best with the SME sector. It is suggested that this attitude coupled with the lack of planning ability exhibited by the SMEs lead to the misalignment in the four quadrants of the strategic alignment model.

To bring the four quadrants into alignment, SMEs and consultants need to consider several issues. Firstly, SMEs should determine their electronic commerce strategies prior to consultant engagement. Secondly, if SMEs intend to outsource the strategic management of their electronic commerce initiative, then care and diligence must be taken in the consultant engagement process to ensure an appropriately qualified and skilled consultant is identified. Finally, consultants need to consider their SME management practices and gain a better understanding of the SME sector in Australia. It is suggested that consultants
need to recognise that SMEs differ from larger corporations in organisational infrastructure, resources and ability to determine business requirements.

It is interesting to note that the industry organisation that contributed funding to this research study, Dow Digital (website design consultants), went into administration on February 8 2002. It had been suggested that the company struggled financially for over two years and was in fact, insolvent from June 2000. The directors of the company stated that a major factor in the company's demise was the trend toward companies taking web development work in-house and thus "the market for the provision of those services had shrunk and become very difficult" (Spencer, 2002, p.28).

It can be suggested that if the CEOTC had been available to Dow, they may have had the required assistance to work more effectively and efficiently with the small business sector, particularly in the webdesign and electronic commerce strategy arena.

8.5 Q4: To what extent do SMEs feel their individual business needs are understood by website design consultants

The results of this study indicated that 60% of the SMEs felt that the consultants did not consider their individual business needs. A further 10% of the SMEs indicated their business needs were met, but only after additional and at times, lengthy further negotiation with the consultants. The SMEs who felt their business needs had not been met all appeared unable to articulate their own business needs. Of the 40% of SMEs who felt their business needs had been met, 17%
made qualifying comments, which indicated that their business needs were not met in an adequate manner.

A very small percentage (4%) of the SMEs indicated that the inability of the consultants to meet their business needs was a mutual problem of both the SME and the consultant. They further indicated that clear communication was lacking on both sides of the client/consultant relationship, but the majority of the SMEs placed the blame entirely on the consultant side of the relationship. In contrast to this finding, all the consultants blamed poor communication on the SMEs and indicated that SMEs lacked the ability to clearly communicate their aims and objectives.

Another area where SMEs felt their business needs were not met were in project completion timelines and budget blowouts. For example, the project timelines were mainly based on SME expectations, rather than explicit agreement between the client and the consultant on project completion times, as discussed in point 8.3 above. The research clearly indicated that client expectations and communication play a critical role in the success of the client/consultant relationship (Kumar, 1999; Krentzman, 1984; Murphy, 1999; Thong, 1996; Gable, 1991).

All of the SMEs in this study (100%) indicated that budgets were exceeded. 90% of the SMEs stated they had informed the consultants of their budget limits, but had put nothing in writing. 8% of the SMEs had not discussed a budget figure with the consultant, had been informed of an hourly rate by the consultant, but were unaware of how the hourly rate was managed until presented with an
unexpectedly high invoice. Again this was a matter of mutual responsibility, the SMEs were vague in relation to budget issues and seemingly unaware of problems until presented with unexpected accounts. The consultants on the other had either knowingly exceeded the budgets or assumed that as nothing was in writing they could continue to invoice until project completion without advising the SMEs of additional expenses.

The research indicated that effective consultant engagement practices required the SME to take a proactive role in the client/consultant relationship and to maintain control of the project (Kumar, 1999; Krentzman, 1984; Murphy, 1999; Thong, 1996; Gable, 1991). As discussed above the results of this study indicated that the SMEs in this study tend to be reactive rather than proactive in their consultant engagement practices, with relatively unrealistic expectations and an inability to communicate effectively.

Communication issues were identified as a problem area within consultant engagement practices from both the SME and consultant perspective (Gable, 1991; Kole, 1983; Kumar, 1999; Murphy, 1999). It was suggested that one consultant characteristic crucial to consultant engagement success was the ability to communicate effectively. In this study, 85% of the SMEs felt that the client/consultant relationship process needed improvement and indicated that communication between the parties was often considered non-existent or of a low quality.

When questioned on how the consultant could improve their service it was found that suggestions for improvement fell into five broad categories: functional;
The biggest problem area identified by the SMEs in this study was the
client/consultant relationship (85%). Consultant staffing problems was the next
area that appeared to require improvement. 60% of SMEs indicated that staffing
was an area for consultant improvement and over half felt that consultant staffing
levels were inadequate. The results indicated that either the consultant did not
retain adequate staffing levels or employed staff with minimal skills and expertise.

Therefore, in answer to research question 4, the majority of SMEs in this study did
not feel their individual business needs were either met or understood by the
consultants. This can be considered a dual responsibility that could be partially
addressed by adherence to Gable’s (1991) 12 phase model. Further, SMEs could
be more successful if they took a proactive role in the client/consultant
relationship by gaining the ability to articulate their business needs clearly and
communicate these needs effectively. 97% of the SMEs in this study had, or
were in the process of, severing the client/consultant relationship. It was found
that, in spite of some measure of economic success, of between a 3% to 30%
increase in sales turnover 60% of the SMEs felt their websites were unsuccessful.
This contradiction in the results tends to support Kumar *et al*'s (1999) findings that
a project, even if complete, may still be considered unsuccessful if the
client/consultant relationship is perceived as negative.

The consultants, when interviewed, suggested that they had a high consideration
for SME needs and requirements within the client/consultant relationship. Yet on
further questioning the five consultants in this study all stated that they did not
enjoy working with the SME sector, finding the sector difficult, lacking in business knowledge and overly budget conscious. Therefore, it would appear difficult for the consultants to adequately meet SME business needs as they tended to have a jaundiced view of the SME sector as a whole and anticipated difficulties prior to accepting projects.

8.6 Q5: What critical development factors can be identified to enable the successful implementation of online business to consumer strategies for SMEs

The literature review and analysis of the results of this study clearly showed that there are significant opportunities for Australian SMEs and electronic commerce (ABS, 2001; DCITA, 2000; OIC, 2000; USIC, 2000). Whilst at the same time barriers to participation and uptake by SMEs is still unacceptably high (OIC, 2000; Freehill, 2000; SBI, 2001; Srivihok, 2000). Further, engagement of website design consultants was found to be a significant problem area for both SMEs and consultants. It was suggested in this study that SMEs needed further assistance in the areas of consultant engagement, planning and strategic management to increase the likelihood of the successful implementation of online business to consumer strategies for Australian SMEs.

Therefore, in an attempt to meet the SMEs and consultants needs and alleviate the problems identified in this study, an online training course (the CEOTC) was developed by the researcher and aimed specifically at the SME sector. The intended learning outcomes of the CEOTC was to provide SMEs and consultants with the ability to plan the implementation of electronic commerce and to select the most appropriate website design consultant for the project. The objectives of
the course included: understanding consultants; business planning; Internet strategic planning; consultant engagement; contract management and project evaluation and assessment. The content of the course included five training modules followed by a series of quizzes and was based on an analysis of the research conducted in the literature review and data analysis from the SME and consultant interviews and focus groups.

The course was then evaluated in order to gauge its usefulness as a learning tool for the SME industry sector. The CEOTC was considered a valuable learning aid, particularly when SMEs were considering engaging outside expertise for electronic commerce development. The minor problems identified during the trial are relatively simple to resolve and the course may be used as a training device for SMEs and consultants after further evaluation and trials. In terms of the Strategic Partnership Model the CEOTC would be particularly successful in assisting SMEs in alignment of quadrants #1 and #2 and #1 and #3 and assisting consultants in alignment of quadrants #2 and #3; #2 and #4 and #3 and #4. This would then allow alignment of all four quadrants in the model, (see figure 8.4 below).
Using the CEOTC would enable SMEs to critically assess quadrants #2 and #4 and enable consultants to understand the unique requirements of the SME sector and by so doing align quadrants #1 and #2 and quadrants #2 and #3. This then bring the four quadrants into alignment creating a more successful client/consultant outsourcing relationship and having a positive impact on the future success of the SMEs foray into e-business initiatives.

The SME and consultant participants in this study have a mutually dependent relationship and are, in effect, reliant on the success of the outsourcing partnership. It is suggested that the CEOTC is one important tool that will enhance this partnership and be mutually beneficial to the SME and consultant sector.
8.7 **Recommendations for Further Study**

This section consists of the recommendations for further research as suggested by the present study.

i. This study analysed an Australia-wide cross-case analysis of SMEs and engagement of website design consultants, and an analysis of consultants and their strategies for e-business development. To obtain additional perspectives on these issues, additional research is required.

ii. The Consultant Engagement Online Training Course (CEOTC) for SMEs needs to be trialed throughout Australia to fully gauge whether it is a useful resource for both academics and practitioners.

iii. Frequently during the course of this study a small business owner indicated that they lacked sufficient understanding on electronic commerce to really specify what was required. Far more information sessions are required where practical workshops introduce the concepts of electronic commerce with hands-on experimentation.

These workshops should not be driven by vendors or consultants but rather by government and academics. There is a real need to cut through the hype of “e-business” and demonstrate how SMEs can turn these opportunities to their own advantage. Further study is needed to determine how this may be achieved.

8.8 **The Significance of the Study**

This study is considered significant in a number of areas. Firstly, it utilized an interesting methodological approach. The methodology was both comprehensive
and used unusual and different data collection tools. Data was collected from two participant groups, SMEs and consultants and the tools included interviews, online focus groups and an online training course.

The study pulled together a number of relevant models and developed a comprehensive evaluative tool to identify whether SMEs and consultants did follow strategic processes in both e-business strategies and consultant engagement practices.

The study identified critical development factors that would enable the successful implementation of online business to consumer strategies for SMEs and consultants. The CEOTC was a novel and useful tool and could be considered a complete self-help tool for both SMEs and consultants.

It is hoped that this research will significantly contribute to the body of knowledge in a number of ways. Practitioners may use this research, in particular the consultant engagement online training course (CEOTC), to become more aware of consultant engagement issues. It may encourage them to examine their own planning and strategic management practices and analyse the methods undertaken for consultant engagement and determine how planning is used in their business activities. Researchers, academics and specialists in this area may use the findings of this study and the CEOTC to enhance training programs. Finally, it will provide a base line for future investigations into SME's, electronic business practices and the consultant engagement process.
Bibliography


List of refereed publications arising from this research


Appendices

Appendix 1

Statement of Disclosure and Informed Consent (Interviews)

Project Title:

Designing a framework for the alignment of e-business strategy and consultant engagement processes for Australian SMEs: a cross-case analysis.

This doctoral research project forms part of current research studies on “Australian Small and Medium-sized Enterprises (SMEs) on the Internet” in the School of Management Information Systems at Edith Cowan University. The project will investigate the relationship between Australian Small and Medium Enterprises, Internet strategy and the engagement of website design consultants. It will focus on how the engagement of a website design consultant may influence the success of SMEs engaging in business to consumer electronic commerce.

The research interview has been designed to investigate issues related to the following specific objectives:

i. to identify factors, including SME engagement of website design consultants, that may influence the success of SMEs engaging in business to consumer electronic commerce;

ii. to construct a framework for analysing those factors which may influence the successful implementation of online business to consumer strategies for SMEs;

iii. to provide a set of critical development factors that may be used by Australian SMEs and consultants to facilitate the implementation of the online organisation.

Your voluntary participation in this research as an interviewee will be very much appreciated. The interview should take a maximum of one hour to complete.

You are free to withdraw your participation at any time. Information provided will be used strictly for the purposes described above and only aggregated data and summarised results will be published.

Information about your identity will be coded and securely kept by the key researcher. This will be kept strictly confidential and will be destroyed at the end of the research period.

Your organisation will be provided with the results of our study as a contribution for your efforts in developing successful strategies to exploit the Internet. Also, your organisation can tap into the expertise of the researcher and associates to find answers to
the emergent issues about online business to consumer electronic commerce strategies and management.

Any questions you may have about the interview and/or project may be directed to the key researcher, **Shirley Bode** (s.bode@ecu.edu.au) on (08) 9273 8198 or to **Professor Janice Burn** (j.bum@ecu.edu.au), Head of School of MIS on (08) 9273 8718.

Please fill in and sign the attached Consent Form if you agree to participate in this study. Thank you.

**Addendum to form for Virtual Focus Groups:**

The interviews will be conducted as online, synchronous focus groups of between seven to eight Small and Medium Enterprises.

**Rules of Procedure for conducting the Virtual Focus Groups:**

1. Shirley Bode (Principal Researcher) will act as the group moderator;

2. Each member of the group will log in anonymously using a code name set by the group moderator;

3. The focus group process will be limited to one hour;

4. Each focus group question will be posted to the group by the moderator in synchronous time;

5. In terms of group process, members respond primarily to the moderator, but may also respond to another group member;

6. In the same manner as face-to-face focus groups, there is no requirement for everyone to respond. People who do not wish to respond to a particular question need not do so. But, also as in a face-to-face group, all ‘discussion’ will be visible to all members of the group;

7. Timelines will be set by the group moderator when issues are put to the group. Just as in face-to-face focus group facilitation, a mechanism is needed to keep the discussion fluid.
Appendix 2: Consent Form

Project Title: Designing a framework for the alignment of e-business strategy and consultant engagement processes for Australian SMEs: a cross-case analysis.

I have read the information on the above research project and am satisfied with the clarification provided on all issues relating to my participation as a respondent.

I volunteer to provide information about my company’s website in my capacity as an employee with some responsibility for strategic application of the website.

I understand that in the use and publication of the research data obtained, care will be taken by the researcher to exclude my identity.

Respondent: ____________________ Date: ____________________
Researcher: ____________________ Date: ____________________
Appendix 3: SME Interview Schedules

NOTE: Questions 1-9 were asked to gauge factual information. Questions 10-15, 31 & 32 were based on Cragg's (1989) Internet Strategy model. Questions 16-30, 33 & 34 were based on Gable's (1991) Consultant Engagement model.

INTERVIEW GUIDE - SMEs

INTERVIEW No: #

Name:

Address:

Ph: email:

http://www.

Date interview conducted:

Permission to use tape recorder – Granted/Not granted

 DEMOGRAPHIC INFORMATION: can be emailed prior to interview

Date company founded
No. of staff
Annual Turnover
Date website started
How many "pages" on site

INTERVIEW QUESTIONS:

1. Have any additional job positions been created in relation to your website (incl part-time or casual)? Y N

2. How many positions have been created?

3. Has your sales turnover increased since your website was launched? Y N
4. What percentage is the increase?  

<table>
<thead>
<tr>
<th>Percentage</th>
<th>0-15%</th>
<th>15-25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>75-100%</th>
</tr>
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</tbody>
</table>

5. Has your customer base increased due to your website?  

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5A. How is this increase measured?  

- Website Counter  
- Direct sales from the website  
- Customer queries from the website  
- Repeat or return customers  

6. How much has been invested in equipment costs for your website? $__________

7. What was the total Cost of building the website? $________________

8. Do you have a maintenance budget for your site?  

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>N</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

8A. If yes, how much is budgeted for maintenance? $________________

9. What proportion of your total sales from the website came from:

- Local  
- Regional  
- Interstate  
- Europe  
- USA  
- Other regions of the world  

10. Who initiated the development of your website?

11. What were your original goals in setting up your website?

12. Could you tell me what you included in your original site e.g. email, promotion, e-transactions

13. What customer group are you trying to reach?

14. How did you plan the development of your website? (ask for copy of any written plan)
15. Could you tell me about any future plans you may have for your website?

16. Your site was originally implemented by a consultant - How did you choose them?

17. When engaging the consultant how much input did you have in the original setup of the site?

18. Do you feel you had the opportunity to canvass the market prior to choosing the consultant?

19. How much time did the consultant spend on the project?

20. How much time did you spend on the project?

21. What process did you follow in choosing your consultant? E.G. a 'Request for Proposal' process, formal or informal

22. Did you have a formal written contract with the consultant? IF YES - what did it include - e.g. budget, variations,

23. Did you have the opportunity to check the consultant's references?

24. Do you feel that the consultant took into account your individual business needs? IF YES, how did they achieve this?? IF NO - how could they have achieved this?

25. How much input did you have in the consultation process?

26. What research was conducted by the consultant to assist in planning your site? e.g. what types of sites/technologies did they look at?

27. How do you feel the consultant could improve their service?

28. How would you describe your relationship with your consultant?

29. Who has the responsibility for future updates of the site?

30. How would you describe your experience in engaging a website design consultant? e.g. reasonable fee, value for money, an ability to produce results, a willingness to maintain a continuous relationship.

31. How successful is your website?

32. How do you measure the success of your site? e.g. economically, promotional, increase customer relations etc.

33. Could you describe any previous experience you have had in engaging a consultant? IF YES then

34. How useful do you feel consultants are for SMEs?

Offer copy of transcript for interviewees information and comments.
Appendix 4: Consultant Interview Schedule

INTERVIEW GUIDE - Consultants

INTERVIEW No: #
Name:
Address:
Ph: email:
www.
Date interview conducted:

Permission to use tape recorder – Granted/Not granted

DEMOGRAPHIC INFORMATION: can be emailed prior to interview
Date company founded
No. of staff
Annual Turnover
Date website started

INTERVIEW QUESTIONS:
1. Do you have a written policy for working with SMEs?
2. What consultancy services do you offer SMEs?
    Design □
    Management □
    Strategic Planning □
3. How do you advise SMEs on website design?

4. Do you usually draw up a contract for consultancy services?

4A. If yes to 4. What is included in the contract?

5. Is the contract drawn up in consultation with the SME?

6. How do you structure your pricing schedule?

   Hourly Rate

   Fixed Quote

   Variable

7. How do you locate SMEs?

   Yellow Pages

   From Consultant website

   ISP

   Referrals

   Other

8. Do you offer business references?

9. Do you take into account the SMEs individual business needs?

10. What research do you usually undertake to assist in planning websites? e.g. what types of sites/technologies do they look at?

11. How would you describe working with SMEs?

12. How would you rate a successful website?

13. How do you measure website success?

   Economically

   Promotional
Increase customer relations □
Site hits □
Other □

14. How useful do you feel consultants are for SMEs?
15. What makes a good consultant?

Offer copy of transcript for interviewees information and comments.
Appendix 5: N*Vivo Coding List

Nodes in Set: All Tree Nodes


Number of Nodes: 70

1 (1) /Base Data
2 (1 1) /Base Data/gender
3 (1 1 1) /Base Data/gender/female
4 (1 1 2) /Base Data/gender/male
5 (1 2) /Base Data/SME type
6 (1 2 1) /Base Data/SME type/micro
7 (1 2 2) /Base Data/SME type/small
8 (1 2 3) /Base Data/SME type/medium
9 (1 2 4) /Base Data/SME type/agricultural
10 (1 3) /Base Data/Initiation
11 (2) /consultant engagement
12 (2 1) /consultant engagement/engagement
13 (2 1 15) /consultant engagement/engagement/consultation process
14 (2 2) /consultant engagement/costs
15 (2 3) /consultant engagement/service
16 (2 3 1) /consultant engagement/service/improvement
17 (2 3 2) /consultant engagement/service/timeline cons
18 (2 4) /consultant engagement/client satisfaction
19 (2 5) /consultant engagement/research
20 (2 6) /consultant engagement/references
21 (2 7) /consultant engagement/business needs
22 (2 8) /consultant engagement/client input
23 (2 9) /consultant engagement/SME experience in engaging cons
24 (2 10) /consultant engagement/updating site
25 (2 11) /consultant engagement/contract
26 (2 12) /consultant engagement/Consultant Expertise
27 (2 12 11) /consultant engagement/Consultant Expertise/Cons~ Experience
28 (2 13) /consultant engagement/ongoing relationship
29 (2 14) /consultant engagement/canvass market
30 (2 15) /consultant engagement/previous experience in cons engagem
31 (3) /Internet strategy
32 (3 1) /Internet strategy/goals
33 (3 1 1) /Internet strategy/goals/primary
34 (3 1 2) /Internet strategy/goals/secondary
35 (3 2) /Internet strategy/content
36 (3 3) /Internet strategy/Process
37 (3 4) /Internet strategy/Function
38 (3 5) /Internet strategy/SME IS
39 (3 6) /Internet strategy/success
40 (3 7) /Internet strategy/plan
41 (3 7 1) /Internet strategy/plan/written plan
42 (3 7 3) /Internet strategy/plan/future plans
43 (3 8) /Internet strategy/customer group
44 (4) /Success
45 (4 1) /Success/unsuccesful
46 (4 3) /Success/measurement
47 (4 3 1) /Success/measurement/site counter
48 (4 3 2) /Success/measurement/tangible
49 (4 3 3) /Success/measurement/intangible
50 (5) /Search Results
51 (5 1) /Search Results/Single Node Lookup
52 (5 2) /Search Results/Single Node Lookup 2
53 (5 3) /Search Results/Single Node Lookup 3
54 (6) /SME
55 (6 1) /SME/timeline
56 (8) /feelings
57 (8 1) /feelings/lessons
58 (8 2) /feelings/positive
59 (8 3) /feelings/negative
60 (8 4) /feelings/ambivalent
61 (10000) /Working Nodes!
62 (10000 1) /Working Nodes!/Document Annotations
63 (10000 2) /Working Nodes!/Free Nodes
64 (10000 2 1) /Working Nodes!/Free Nodes/1
(10000 3) /Working Nodes/ Text Search Nodes
(10000 3 1) /Working Nodes/ Text Search Nodes/ Searching for 'money'
(10000 4) /Working Nodes/ ISS Nodes
(10000 4 1) /Working Nodes/ ISS Nodes/ costs ~pilot SMES~
(10000 4 3) /Working Nodes/ ISS Nodes/ pilot engagement
(10000 5) /Working Nodes/ Index Search
Appendix 6: Example of HTML Code for CEOTC

INDEX:

<!doctype html public "-//ietf//dtd html//en">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<title>Consultant Engagement for SMEs</title>
</head>
<body background="edge(2).gif" link="#990033" vlink="#996633" alink="#990033" bgcolor="#FFFFFF">

<ul>
<p><b>Consultant Engagement Online Training for SMEs</b></p>
<br/>

<font face="Arial" color="#000080">
<br/>

ABOUT THIS PROJECT</font></p>

This doctoral research project forms part of current research studies on "Australian Small and Medium-sized Enterprises (SMEs) on the Internet" in the School of Management Information Systems at Edith Cowan University, Perth, Western Australia.

This Training Guide has been developed by Shirley Bode (PhD student at Edith Cowan University) as a tool for Australian SMEs to facilitate their entry into the electronic commerce arena.

Any questions you may have on the project may be directed to the key researcher <A HREF="mailto:s.bode@ecu.edu.au">Shirley Bode</A> or to Professor Janice Burn <A HREF="mailto:j.burn@ecu.edu.au">Head of School of MIS</A>

Website Design Consultants</b></font></h1>

The majority of SMEs have neither the internal expertise nor financial resources to enable in-house development of electronic commerce and therefore turn to the services of website design consultants to assist them. Unfortunately, they often engage consultants without any clear idea of their intended e-business strategy and without due care as to effective engagement processes. This training module provides a guide to help you devise strategies for consultancy engagement for e-Business development.

<p align="left"><big><font face="Arial" color="#000080">345</font></big></p>
Instructions:

On the following pages you will find a series of modules covering:

- How to find a website design consultant
- Planning for your website
- How to engage a consultant
- How to negotiate a contract
- Controlling & monitoring progress
- Post-engagement evaluation

Each Module concludes with a brief quiz.

Print Version

This training module was not designed to print out. If you would like a printed copy of the same information that is covered in this module, you can print out this file. The file is in Adobe Acrobat pdf format. The Acrobat Reader can be downloaded from the Adobe website.

To proceed to module 1, click here.
MODULE 1
How to choose your website design consultant

BACKGROUND:
What are website design consultants?
The term can be confusing. Consultants are expected to provide services, for a fee, to assist businesses achieve a particular goal. Website design consultants could be expected to offer services including:

1. strategic management
2. project planning
3. website design

It is estimated that by 2005 the global Internet consultancy market will be worth $US50 billion [Evamy, 1999]. Arthur Andersen estimates the ebusiness consultancy market in the Asia-Pacific region will be worth more than $US8 billion by 2002 [Andersen, 2000]. Website design consultancy is a rapidly growing and high profit generating industry sector.

It is difficult to define these particular consultants as virtually anyone with an IT diploma and a minor in graphic art can register a business, hang out the shingle and hope to generate large amounts of money.

The definition of a Website Design Consultant for the purposes of this module was determined to be a consultant who claimed to offer a complete solution for the SME venture into business to consumer electronic commerce. WHERE DO YOU FIND A WEBSITE DESIGN CONSULTANT?

Your Internet Service Provider (ISP) is a good place to start, they may know of a good, value for money consultant.
Business Associates and Colleagues

Do you belong to an Industry Association? Contact them & 38; ask for a recommendation

Industry Associations can be found in the white pages telephone directory or go to:

Whitepages website

Family and Friends

Ask around - quite often family members and/or friends may know of a good consultant.

Online Directories of Website Design Consultants

Try a search on the following websites:

Aussie.com.au

Ozsearch.com.au

Webwombat.com.au

Or you can try a search on a search engine

Google.com

To proceed to the first quiz, click here

QUIZ 1
MODULE 1

Quiz No. 1

<form name="quizl" method="POST" action="http://www.knight-web.net/cgi-bin/FormMail.pl">

Enter Your Name:
<input type="text" size="30" maxlength="50" NAME="username">

Select you business size:<BR>
<input type="radio" name="business_size" value="owner/operator">
owner/operator<br>

<input type="radio" name="business_size" value="micro">
micro<br>

<input type="radio" name="business_size" value="small">
small<br>

<input type="radio" name="business_size" value="medium">
medium<br>

</form>
owner/operator = no employees
micro = less than 5 employees
small = 5-20 employees
medium = less than 100 employees
Select your location:

Q.1 What are some of the services website design consultants offer?

Q.2 How would you define a website design consultant?
Q.3 List some of the ways you could find a website design consultant

Q.4 What would some of the problems be in using friends as a referral?

Q.5 What are the benefits and disadvantages of using online directories to search for a website design consultant?