Internet and Competitive advantage

-- an empirical study of UK retail banking sector

Qing Amie Porter

A Dissertation Submitted to the
Faculty of Warwick Business School
University of Warwick
in partial fulfillment of the
requirements for the degree of Doctor of Philosophy

November 2005
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE OF CONTENTS</td>
<td>2</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>6</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>7</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>8</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>10</td>
</tr>
<tr>
<td>CHAPTER 1 INTRODUCTION</td>
<td>11</td>
</tr>
<tr>
<td>1.1 SCOPE OF THE RESEARCH</td>
<td>11</td>
</tr>
<tr>
<td>1.2 THE PURPOSE OF THE RESEARCH</td>
<td>14</td>
</tr>
<tr>
<td>1.3 INTENDED CONTRIBUTION OF, AND NEED FOR, THE RESEARCH</td>
<td>15</td>
</tr>
<tr>
<td>1.3.1 Theoretical Contributions</td>
<td>15</td>
</tr>
<tr>
<td>1.3.2 Practical Contributions</td>
<td>16</td>
</tr>
<tr>
<td>1.4 ORGANISATION OF THE THESIS</td>
<td>16</td>
</tr>
<tr>
<td>CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK</td>
<td>20</td>
</tr>
<tr>
<td>2.1 INTRODUCTION</td>
<td>20</td>
</tr>
<tr>
<td>2.2 COMPETITIVE ADVANTAGE</td>
<td>20</td>
</tr>
<tr>
<td>2.2.1 Introduction</td>
<td>20</td>
</tr>
<tr>
<td>2.2.2 Market-based View of Competitive Advantage</td>
<td>26</td>
</tr>
<tr>
<td>2.2.3 Resource-based View of Competitive Advantage</td>
<td>31</td>
</tr>
<tr>
<td>2.2.4 Alternative Views of Competitive Advantage</td>
<td>38</td>
</tr>
<tr>
<td>2.2.5 Sustainable Competitive Advantage</td>
<td>42</td>
</tr>
<tr>
<td>2.2.6 Barriers to Achieving Competitive Advantage through the Internet</td>
<td>45</td>
</tr>
<tr>
<td>2.3 INTERNET AND RETAIL BANKING</td>
<td>54</td>
</tr>
<tr>
<td>2.3.1 Internet</td>
<td>54</td>
</tr>
<tr>
<td>2.3.2 Retail Banking Sector in the UK</td>
<td>60</td>
</tr>
<tr>
<td>2.4 HYPOTHESES AND RESEARCH MODEL</td>
<td>71</td>
</tr>
<tr>
<td>2.4.1 Internet Strategy</td>
<td>71</td>
</tr>
<tr>
<td>2.4.2 Characteristics of Retail Banks</td>
<td>76</td>
</tr>
</tbody>
</table>
CHAPTER 3: RESEARCH METHODOLOGY ................................................. 124

3.1 INTRODUCTION ...................................................................................... 124

3.2 ONTOLOGY AND EPISTEMOLOGY ................................................... 124

3.3 THE RESEARCH METHOD ................................................................... 129

3.4 INTERVIEW RESEARCH METHOD .................................................... 132

3.4.1 Motivation for the Exploratory Interviews ........................................ 132

3.4.2 Interview Design ................................................................................... 134

3.4.3 Data Collection ..................................................................................... 137

3.4.4 Data Analysis Strategy ......................................................................... 139

3.5 SURVEY METHODOLOGY ................................................................... 140

3.5.1 Motivation for the Survey .................................................................... 141

3.5.2 Survey Design ....................................................................................... 142

3.5.3 Survey Measurement Instrument ....................................................... 145

3.5.4 Sample Selection ................................................................................... 151

3.5.5 Data Collection ..................................................................................... 152

3.5.6 Respondent and Sample Profiles ........................................................ 156

3.5.7 Missing Data and Non-Response ........................................................ 162

3.5.8 Data Analysis ........................................................................................ 163

3.6 SUMMARY AND LIMITATIONS OF THE METHOD ....................... 174

CHAPTER 4: THE INTERVIEWS ............................................................ 176

4.3 INTRODUCTION ...................................................................................... 176

4.2 RATIONALE FOR INTERVIEWEE SELECTION AND BACKGROUND .................................................. 178

4.2.1 Royal Bank of Scotland ....................................................................... 178

4.2.2 First Direct ............................................................................................ 180

4.2.3 Egg ......................................................................................................... 182

4.2.4 Clydesdale Bank ................................................................................... 183

4.2.5 Allied Irish Bank .................................................................................. 184

4.2.6 Leeds and Holbeck Building Society .................................................. 185

4.3 COMPETITIVE ADVANTAGE AND THE INTERNET ..................... 186

4.3.1 Concept of Competitive Advantage .................................................... 187

4.3.2 Cost Reduction...................................................................................... 206

4.3.3 Quality Customer Service .................................................................... 210

4.3.4 Customer Base ...................................................................................... 218

4.3.5 Good Brand........................................................................................... 222

4.3.6 Quality Product Range and Cross Selling ......................................... 224
LIST OF TABLES

Table 2.1: Comparison of Alternative Delivery Mechanisms - Retail Banking Industry ........... 64
Table 2.2: Cost Per Transaction by Delivery Channel ............................................................... 91
Table 2.3: Economic Advantages of Internet Banking ............................................................... 92
Table 2.4: Customer Satisfaction – Internet banking ................................................................. 104
Table 2.5: Research on Service Quality .................................................................................... 106
Table 2.6: Research Hypotheses ............................................................................................... 119
Table 3.1: A Three Dimensional Framework For Categorising Scientific Paradigms ............ 125
Table 3.2: Criteria for Selection of the Interviews ................................................................. 136
Table 3.3: Summary of Research Methods .............................................................................. 153
Table 3.4: Survey Respondent Rate by Firms ......................................................................... 158
Table 3.5: Survey Respondents Background- Type of Firm ................................................... 159
Table 3.6: Survey Firm Sizes: Total Assets ............................................................................. 159
Table 3.7: Survey Firm Sizes: Number of Employees ............................................................. 160
Table 3.8: Survey Respondents' Job ....................................................................................... 160
Table 3.9: Survey Respondents' Seniority ........................................................................... 161
Table 3.10: Correlation Matrix on Dependent Variables ....................................................... 168
Table 3.11: KMO and Bartlett's Test ......................................................................................... 169
Table 4.1: First Direct Customer Base ..................................................................................... 219
Table 4.2: Summation of Six Interviews .................................................................................. 241
Table 5.1: Concept of 'Competitive Advantage' ...................................................................... 243
Table 5.2: Factors that Provide Competitive Advantage in the Retail-Banking Sector ......... 244
Table 5.3: Main Barriers to Achieving Competitive Advantage Using the Internet .......... 248
Table 5.4: Total Variance Explained ....................................................................................... 251
Table 5.5: Rotated Component Matrix ................................................................................... 254
Table 5.6: Items in Survey Instrument ..................................................................................... 255
Table 5.7: Average Variance Extracted for Each Factor ........................................................ 257
Table 5.8: Regression of Level of Internet Usage on Bank Size and Type ........................... 262
Table 5.9: Regression of Timing of Internet Entry on Bank Size and Type ......................... 263
Table 5.10: Regression of Cost Reduction on Size of Bank, Type of Bank, Level of Internet Usage, and Timing of Internet Entry ........................................................................ 264
Table 5.11: Regression of Brand Image on Size of Bank, Type of Bank, Level of Internet Usage, and Timing of Internet Entry .......................................................... 266
Table 5.12: Regression of Service Quality on Size of Bank and Level of Internet Usage ....... 268
Table 5.13: Regression of Customer Convenience on Size of Bank and Level of Internet Usage ..................................................................................................................... 269
Table 5.14: Regression of Customer Interaction on Size of Bank and Level of Internet Usage .......................................................................................................................... 270
Table 5.15: Regression of Attracting New Customers on Size of Bank, Level of Internet Usage, and Timing of Internet Entry ................................................................. 272
Table 5.16: Regression of Retaining High Profile Customers on Size of Bank, Level of Internet Usage, and Timing of Internet Entry ........................................................... 273
Table 5.17: Regression of Cross Selling on Size of Bank and Level of Internet Usage ......... 274
Table 5.18: Tests of Step 3 in the Mediation Analyses Involving Cost Reduction as the Dependent Variable .......................................................................................................... 279
Table 5.19: Tests of Step 4 in the Mediation Analyses Involving Cost Reduction as the Dependent Variable .......................................................................................................... 281
Table 5.20: Tests of Step 3 in the Mediation Analyses Involving Brand Image as the Dependent Variable ............................................................................................................ 283
Table 5.21: Tests of Step 4 in the Mediation Analyses Involving Brand Image as the Dependent Variable ............................................................................................................ 285
Table 5.22: Tests of Step 3 in the Mediation Analyses Involving Service Quality as the Dependent Variable ........................................................................................................ 287
Table 5.23: Tests of Step 4 in the Mediation Analyses Involving Service Quality as the Dependent Variable ................................................................. 288
Table 5.24: Tests of Step 3 in the Mediation Analyses Involving Customer Convenience as the Dependent Variable .................................................. 290
Table 5.25: Tests of Step 4 in the Mediation Analyses Involving Customer Convenience as the Dependent Variable .................................................. 291
Table 5.26: Tests of Step 3 in the Mediation Analyses Involving Customer Interaction as the Dependent Variable .............................................................. 293
Table 5.27: Tests of Step 4 in the Mediation Analyses Involving Customer Interaction as the Dependent Variable .............................................................. 294
Table 5.28: Tests of Step 3 in the Mediation Analyses Involving Retaining High Profile Customers as the Dependent Variable ............................................. 297
Table 5.29: Tests of Step 4 in the Mediation Analyses Involving Retaining High Profile Customers as the Dependent Variable ............................................. 298
Table 5.30: Tests of Step 3 in the Mediation Analyses Involving Cross Selling Customers as the Dependent Variable ....................................................... 299
Table 5.31: Mediation Test Results ................................................................................. 301
Table 5.32: Sobel Test Results ......................................................................................... 305
Table 5.33: Summary of Research Hypotheses and Results of the Analysis ................. 311

LIST OF FIGURES

Figure 2.1: Research Mediation Model ........................................................................ 121
Figure 2.2: Research Hypotheses and Mediation Model ............................................. 122
Figure 3.1: Triangulation Research Methods ................................................................. 131
Figure 4.1: Customer recommendation rating ............................................................... 211
Figure 4.2: Customer Satisfaction Rating ................................................................. 211
Figure 5.1: Scree Plot ................................................................................................. 253
Figure 5.2: Mediation Model ......................................................................................... 275
Figure 5.3: Hypotheses testing result- Mediation Model ........................................... 308
ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to those who have contributed to this dissertation.

I am deeply indebted to my supervisor, Dr. Sue Bridgewater, whose support, insightful advice and constant encouragement enabled this dream to become a reality in spite of many obstacles and difficult periods. Her experience and insights were exceptionally important.

I am extremely grateful to my supervisor, Dr. Sally Dibb, whose wisdom; patience and support were essential ingredients for the completion of the thesis. She has provided invaluable insights and friendly encouragement throughout the entire project.

I owe special thanks to Dr. Richard Mead who inspired me to start this journey. Dr. Bernardo Batiz was helpful in providing direction and many useful reading materials. I would also like to thank Dr. John Caruso from the University of Montana, for his support with the mediation statistics analysis.

Fellow student Nina Seppala was instrumental in the survey development and provided friendship and encouragement during the long journey.

I am indebted to Mr. Terry Fuller and Mr. Ian Clark without whom access would have been far more difficult to obtain. I would like to express gratitude to all interviewees who offered their time and shared their views and experience with me. In particular, I would not have been able to carry out my research without the
extensive input from Mr. Darren Sugden, Mr. Andy Hunter, Mr. Tony Burdin, Mr. Michael Cooke, Mr. Calvin Wilson, and Mr. David Rodney.

Last but not least, I would like to thank David Porter, without whose support, patience, friendship, and occasional kick in the rear, this project would never have been finished.
Abstract

There is wide agreement that the Internet has had a significant impact on the retail banking sector. However, no consensus has formed as to whether the Internet can provide retail banks with competitive advantage and if so, whether this competitive advantage is sustainable.

This research project examines the provision of Internet usage in the UK retail banking sector. The goals of this study are threefold: 1) to explore the notion of "competitive advantage" in retail banking, 2) to understand why managers of retail banks invest in the Internet and what they consider are the advantages of Internet banking and 3) to ascertain why some managers of retail banks are more convinced of the benefits of the Internet as a generator of competitive advantage than others and whether this relates to the characteristics of their bank and/or its Internet strategies.

A model of the use of the Internet in retail banking was developed. An analysis framework, based on the competitive advantage that the use of the Internet may produce, was also built up. In addition, a combination of qualitative and quantitative methodologies was utilised. Interviews were formulated and undertaken in order to extend the findings in the extant literature, and to further confirm and refine the theoretical framework of this study. Then utilising the results of the interviews, a survey was conducted and 151 senior managers responded. The responding managers came from both small and large retail banks and, in addition, from building societies. They held a variety of different positions within their organisations.

The thesis produced a number of significant findings. The concept of 'competitive advantage' was defined in the UK retail banking sector. Key factors that provide retail banks with competitive advantage were identified; namely; "differentiation", "cost leadership" and "product uniqueness". These resembled Porter's generic strategies, however, the results rejected his concept of the "stuck-in-the-middle" competitive situation. He had indicated that an integrated strategy using more than one form of competitive advantage is likely to fail to achieve advantage. The results indicate that combined strategies are not only possible, but are likely to be the most successful overall Internet strategy for retail banking firms to pursue.

The research concluded that the size and type of retail bank has direct impact on Internet strategy. Managers' perceptions of competitive advantage provided by the Internet is affected, both by the characteristics of their firms, and also by the Internet strategies that their banks employed. Internet strategies are confirmed to be mediation variables and have a good fit with the resource based view. This indicates that resource and core competences are crucial to the decision about which Internet strategies to employ to achieve maximum competitive advantage. The research therefore found that, in the Internet arena, the market-based view and the resource based perspective of competitive advantage may be seen as complementary as they are concerned with different domains (i.e. external and internal respectively).

However when considering the issue of sustainability, a hypercompetitive view is more appropriate. It suggests that constantly being flexible, innovative and quickly responding to the changing environment are the foundations required for firms to achieve sustainable competitive advantage. Further, a number of issues were identified to be important for the future of Internet banking.

Key words: Internet, competitive advantage, retail banking
Chapter 1  INTRODUCTION

1.1 SCOPE OF THE RESEARCH

The research described in this thesis is concerned with the Internet and competitive advantage in the UK retail banking sector.

The Internet has become one of the most discussed topics in both business and academia. Hoffman (1998) described the Internet as “the most important innovation since the development of the printing press”, with the potential to “radically transform not just the way individuals go about conducting their business with each other, but also the very essence of what it means to be a human being in society”. The Internet is transforming the rules of competition and inventing new value propositions. The changes made possible by the Internet are strategic and fundamental (Ghosh, 1998). However, like all market discontinuities, the Internet creates opportunities as well as threats—it can create and enhance competitive advantage as readily as it can destroy performance. Recent academic literature has not been able to agree either on whether the Internet has created sustainable competitive advantage or on how to create and preserve competitive advantage by using the Internet (Smith et al., 1999; Zott et al. 2000; Wind and Mahajan, 2001).

Strategic management practitioners and researchers alike have been constantly preoccupied with the phenomenon of sustainable superior performance demonstrated by highly successful firms over their rivals. Therefore, a great deal of attention has been focused on the nature and causes of competitive advantage.
To date, there have been various theoretical frameworks and perspectives attempting to explain competitive advantage. The market-based view (Porter, 1980, 1985, 2001), the resource-based view (Barney, 1991; Prahalad and Hamel, 1990), and the hypercompetitive view (D’Aveni, 1994; Brown and Eisenhardt, 1998) of competitive advantage are among the better known.

The choice of financial services as an area of study was decided partly because it is much quoted and studied in the literature and also because of its more obvious fit with the Internet than other sectors like manufacturing, transport etc. Topics discussed in relation to their effect on competitive advantage in the financial services industry include; bank competition (Heffernan, 2002), marketing (Harrison, 1999; Howcroft, 1989), branding (de Chernatony et al., 2004), offshoring (McLaughlin and Fitzsimmons, 1996) and crucially Information Technology (Devlin, 1995). In addition, retail banking has seen considerable discussion in the area of gaining competitive advantage through marketing, (Dibb and Meadows, 2001) and customer retention (Kubis-Labiak, 2004). However, relatively little attention has been paid in relation to gaining competitive advantage through the Internet.

Financial services are an important product that all economically active individuals are obliged to use (Davies, 1996). One of the financial service sectors that appear to be most affected by the Internet is retail banking (Dannenberg and Kellner, 1998; Barnatt, 1998; Daniel, 1999). Nevertheless, existing studies of the adoption of the Internet in the retail banking sector are largely anecdotal, due to the Internet’s comparative novelty. Within the financial services industry, banking is the largest sector, and comprises a wide range of activities. Although there are
several types of banks, for example, retail, commercial and investment banks, this thesis will only consider the retail banking sector. The rationale for this decision is that retail banking represents one of the largest and most influential activities of any developed economy and has strong linkages with every part of the economic system.

In addition to this general focus on retail banking, is the fact that it is one of the industries that seems to be most affected by the Internet (Barnatt, 1998; Dannenberg and Keller, 1998; Mols, 2001; Waite and Harrison, 2004). Internet technology is fundamentally changing the retail banking industry, blurring the traditional lines that define product, market and customer base (Pyun et al., 2002). According to many, we are set to move into Internet banking “hyper growth”, (see for example, Datamonitor; Forrester, 2003), with the estimate that 110 million Europeans will use Internet banking by 2005 and 130 million by 2007.

“Online banking will be one of the fastest growing online applications in the UK over the next five years” (Paderni et al., 2001).

Most banking organisations in the UK have launched or developed an Internet service delivery channel and many of them have already set up transactional services. Yet according to Forrester (2002), “1 million UK Net users have tried online banking - and then given up”. This negative sentiment is summarised in the contention that retail banks do not gain competitive advantage, despite their heavy investment in online services (Ensor et al., 2002). Therefore there is no consensus as to whether the Internet has in fact provided retail banks with competitive advantage.
In the light of these contradictory findings, this research has examined the factors that affect whether banks achieve competitive advantage using the Internet. In addition, the question of why banks invest in the Internet, in the light of this uncertainty, is considered.

1.2 THE PURPOSE OF THE RESEARCH

This research aims to analyse the issues relating to Internet usage in the UK retail banking sector. In particular, it addresses the following issues:

- What is the notion of ‘competitive advantage’ in the retail banking sector?
- What are the factors that affect retail banks’ ability to achieve competitive advantage from using the Internet, and
- Why are some retail bank managers more convinced of the benefits of the Internet as a generator of competitive advantage than others, and how does this relate to characteristics of their banks, e.g. the size and type of bank, and their Internet strategies, e.g. the level of Internet usage and timing of Internet entry.
1.3 INTENDED CONTRIBUTION OF, AND NEED FOR, THE RESEARCH

1.3.1 Theoretical Contributions

Firstly, the research is an attempt to explore in detail the concept of competitive advantage, as it pertains to the UK retail banking sector. This is in particular in relation to the use of the Internet in retail banking. It therefore aims to assist researchers and practitioners in understanding and further investigating competitive advantage in the UK retail banking sector.

A theoretical model will be developed and tested by regression analysis in this study. From the factor analysis the most crucial factors required to achieve competitive advantage will be identified. A set of regression analysis will be used to test the proposed hypotheses. The results will be compared with Porter’s results, (Porter, 1985) and the resource-based view of competitive advantage. From a market-based viewpoint, the study will attempt to identify key success factors which achieve competitive advantage from the use of the Internet and whether they are along the lines of Porter’s generic strategies or are external in nature. The applicability of the hypercompetitive point of view, as a possibly more effective way of achieving sustainable competitive advantage in the rapidly changing Internet business, will also be assessed. The thesis will also consider whether a multi-perspective and dynamic competitive strategy is a more appropriate way to achieve competitive advantage from the use of the Internet in the UK retail banking sector.
Since much of the existing research primarily considers the customer, there are lacks of studies which provide a managerial perspective of Internet banking. It is this need which this thesis seeks to fill.

1.3.2 Practical Contributions

This study also intends to produce practical contributions for retail banking professionals.

Firstly, the definition of ‘competitive advantage’ in the retail banking sector and its practical implications will be evaluated. For managers, the results of the research into competitive advantage are intended to identify a set of appropriate competitive strategies for the Internet arena. These will include strategies like optimising cost leadership, differentiating themselves from others and providing unique products/services. Issues that small retail banks and building societies should consider before using the Internet and how the Internet fits with their short and long-term strategies will be addressed. Whether small banks can benefit from an Internet presence will be evaluated. How to implement an Internet strategy appropriately will also be addressed. A number of recommendations for retail banks to achieve better competitive advantage using the Internet will be produced.

1.4 ORGANISATION OF THE THESIS

This dissertation is divided into seven chapters. This chapter introduces the research topic and explains why the researcher felt motivated to undertake this
research. The major theme of the dissertation is introduced and the relationship between competitive advantage and the Internet in the UK retail banking sector is explored.

The second chapter introduces the theoretical basis for this study of the Internet and competitive advantage in UK retail banking sector. A literature review in each area covered, in competitive advantage in general, in retail banking as a whole and in Internet banking, is presented to illuminate, describe and connect the topics as well as providing the basis for the theoretical framework. Research gaps are identified to enable further refinement of the design of the study. A research framework is developed to direct the investigation of the relationship between the characteristics of the various banks, their Internet strategies and the perceived competitive advantage, generated through the usage of the Internet. Based on a review of the pertinent literature and the proposed research framework, specific hypotheses are then developed.

Chapter three discusses the research methodology in detail. The epistemology and research methodology are discussed and justified. Triangulation methodology is utilised to address the research questions of the study. The rationale of the interview method is explained and the unit of analysis and case selection process are outlined and justified. For the quantitative study stage, the selection of the sample, unit of analysis and respondents are introduced. Further, the questionnaire development process is described and the data collection process is discussed. Finally, the data analysis strategy is briefly outlined and contributions and limitations of the methodology used are presented.
Chapter four describes the research results and findings from the six interviews. A description of the background of each interview and the rationale for the choices of interviewees are provided, followed by a discussion of the various findings. The results of the interviews are presented in a comparable way. The issues raised in the interviews are taken into consideration in the design of the questionnaire.

Chapter five presents the findings and results from the survey. Firstly, a comprehensive descriptive analysis is presented to highlight the research result, followed by a comprehensive discussion of the data analysis techniques utilised to develop valid and reliable instruments. Factor analysis is used to identify issues that affect retail banks’ ability to achieve competitive advantage by utilising the Internet, following which bivariate regressions are utilised to formally test the hypotheses.

Chapter six provides a detailed discussion and practical implications of the findings of the survey. First the results of the survey open questionnaire are analysed. The factor analysis is discussed in some detail to see if the quantitative results are along the same lines. The results of the hypothesis testing are analysed and discussed. Finally the other survey results are analysed. The barriers to achieving competitive advantage using the Internet are outlined and factors that affect retail banks’ ability to achieve competitive advantage are discussed in detail. In addition, the relationship between the two major existing views of competitive advantage in the Internet arena is examined.
The final chapter, chapter seven starts with some concluding remarks. It continues with a discussion of the purpose of the research and makes clear that the research is designed to build an understanding of the issues around competitive advantage and Internet banking. This first section, which includes the explanation, also includes a summary of the content of the preceding six chapters. Then the research's theoretical and practical contributions are discussed. This is followed by a consideration of the limitations of the research and a reference to possible future research directions.
Chapter 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

This chapter provides a review of the relevant literature upon which this dissertation builds. In section 2.2, the extant literature on competitive advantage is reviewed to gain an understanding of the context of competitive advantage in retail banking. In section 2.3, the literature on competitive advantage and the Internet in retail banking sector is discussed and research gaps are identified. Section 2.4 presents a set of hypotheses for the research based on the existing literature and a research model is developed. The last section contains a chapter summary.

2.2 COMPETITIVE ADVANTAGE

This section contains a full review of the relevant literature with respect to competitive advantage. It addresses the theoretical framework of competitive advantage, considering the market based view, the resource based theory and various alternative ideas such as the hypercompetitive view. It also considers theories of sustainable competitive advantage. This discussion addresses the essence of the research outlined above, which is the pursuit and achievement of competitive advantage in Internet banking.

2.2.1 Introduction

For at least two decades, the pursuit of competitive advantage has been a concept that is at the centre of much of the practice and study of strategic
management (see for example, Coyne, 1986; Ghemawat, 1986; Porter, 1985; Williams, 1992; Rouse and Dallenbach, 1999). To date, there have been various theoretical frameworks and perspectives attempting to explain competitive advantage, yet the definition of competitive advantage is still being debated (Rumelt, 2003).

The concept of competitive advantage originated from Gauss 1934's Principle of Competitive Exclusion (Herderson, 1989). In 1934, famous for "the father of mathematical biology", Gause published the "results of a set of experiments in which he put two protozoan of the same genus in a bottle with an adequate supply of food" (ibid.). He hypothesised that the animals could survive and persist together if they were of different species. They could not if they were of the same species. This observation led to Gause’s Principle of "Competitive Exclusion"—no two species that make their living in the identical approach can coexist. Each one needs to be different enough to have a unique advantage. A similar thought is behind the idea that firms will always challenge and compete with their rivals in an effort to gain an advantage in terms of relative performance (Lumpkin and Dess, 1995; Miller, 1993). This has lead to efforts to increase market share with price and marketing initiatives (Vilcassim et al., 1999), innovations (Banbury and Mitchell, 1995), competitive challenges (Ferrier et al., 1999; Makadok, 1998), differentiation or combinations of these (Ferrier et al., 1999).

Competitive advantage has been defined as a firm consistently earning a higher rate of return than its competitors in a particular strategic field (Schoemaker, 1990; Grant, 1991). Until the mid-1980s, only a very few researchers used the term
competitive advantage. Scholars like Penrose (1959), Ansoff (1965) and Andrews (1971) mentioned competitive advantage a few times in their work, defining it in terms of what a firm needed to do to compete effectively.

Ansoff (1965:110) claimed that "firms develop a resource profile during strategy formulation and provided a definition of competitive advantage":

"...to isolate characteristics of unique opportunities within the field defined by the product-market scope and the growth vector. This is the competitive advantage. It seeks to identify particular properties of individual product markets, which will give the firm a strong competitive position".

Hofer and Schendel (1978) emphasised internal resource and competence assessment as a primary activity in strategy development and described competitive advantage as "the unique position an organisation develops vis-a-vis its competitors" (Hofer and Schendel, 1978:25).

In Porter's view (1985:xv), "Competitive advantage is at the heart of a firm's performance in competitive markets". He observes that, "Competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it" (1985:3) and "translates into higher productivity than that of competitors" (1990:5).

Similarly, Dibb et al. (1994) define competitive advantage as being when a firm "... matches target market needs and expectations, and is superior to those offered by competitors." Hay and Williamson (1991:42) describe competitive advantage as the "deceptively simple idea of assessing a company's capabilities and market position by how they give it advantage relative to competitors".
Barney (1991:99) claims that a firm is “said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by current or potential competitors”. He identifies that competitive advantage can be defined differently using the firm and the industry as different levels of unit of analysis. He prefers to use the firm as the unit of analysis to view competitive advantage and offered two further definitions:-

“...a firm is said to have a competitive advantage when it is engaging in activities that increase efficiency or effectiveness that competing firms are not, regardless of whether those other firms are in a particular firm’s industry” (Barney, 2001:48).

“...firms that generate higher returns than were expected by stockholders (at constant level of risk) have a competitive advantage. This definition of competitive advantage is often called economic rent...” (Barney, 2001: 48).

Peteraf (1993) defines competitive advantage as “sustained above normal returns”. She describes imperfectly mobile resources as those that are specialised to the firm and notes that such resources “can be a source of competitive advantage” because “any Ricardian or monopoly rents generated by the asset will not be offset entirely by accounting for the asset’s opportunity cost”.

According to Kay (1993:24), “competitive advantage can be measured by looking at the ratio of added value to the firm’s gross or net output”, which makes a direct linkage between competitive advantage and the value-added that can be calculated from company’s financial performance.
From the established idea of firm level competition as the basis of competitive position (Mintzberg, 1978; Porter 1980; Chen and Macmillan, 1992), a newer concept of competitive dynamics emerges which focuses on the relationship between competitive advantage and competitive action by firms (Bettis and Weeks, 1987; Chen and Macmillan, 1992; Smith et al., 1992). The competitive dynamics view emphasises the key issue that in practice, competitive actions by one firm set off retaliatory actions by competing firms (Baum and Korn, 1996). This leads to the idea that sometimes a firm’s key competitive advantage is the manner and speed with which it responds to the moves or countermoves of its competitors, rather than the moves themselves (Smith et al., 1992).

Two main schools of thought have emerged related to the conceptualisation and adoption of competitive strategies. One school of thought, the “market-based” view has primarily proposed that viable business units can either seek efficiency or differentiation. This “market-based” view originated from the Harvard School approach, and is also known as the environmental model industry structure, Industrial Organisation (IO) view and market position (e.g. Bain, 1956; Scherer, 1970; Hill, 1988; Porter, 1980; Oster, 1994). While analysing competitive advantage, the Harvard School approach focuses on the study of the influence of the external environment on a firm’s strategy. According to Harvard’s view, firms operating in the same industry have an inclination to receive similar information and are thus tend to adopt identical strategies. This has a negative effect as no competitive advantage is possible in this situation. To this respect, all firms operating in the same fields should receive the same inputs and therefore, no competitive advantage can be gained. The chance for any form of diversity can
only exist for a short period of time. A firm’s success is limited to its abilities to respond to threats and opportunities within the industry which it operates. The firm’s strategic decision process and the profits that it reaps are highly dependent upon external market conditions. A firm’s relationship to the industrial environment that it operates in is responsible for producing a successful market position, and this develops along three dimensions: competences, strengths, and weaknesses. (Learned et al., 1965).

There is a recent move from a “market-based” to a “resource-based” view of competition in the strategic management discipline. The “market-based” view considers operations as a perfectly adjustable system which is focused on following the rules controlled by markets, where as the “resource-based” view believes that a firm can gain more advantage by focusing on developing, protecting, and leveraging its unique operational advantages and resources to change the rules of competition (Lippman and Rumelt, 1982; Hitt and Ireland, 1985; Ghemawat, 1986; Barney, 1986; Day and Wensley, 1988; Fahey, 1989; Reed and DeFillippi, 1990; Teece et al., 1997). This paradigm shift began with evidence that high performance is achieved mainly by the strength of a firm’s resources, and not by the strength of its market position (Rumelt, 1984; Wernerfelt, 1984). Nevertheless, neither view has fully articulated the processes by which firms' internal resources nor market-based resources are converted into a competitive advantage. Therefore they have not provided a sophisticated combination of the marketing and resource-based views.

It can be said that, in spite of its’ general recognition by the overall academic community, the concept of competitive advantage remains comparatively
undefined, and appears to be a tautology at times. In other words, successful firms are successful as they have competitive advantage, which is in this case is only definable as the quality that provides success to those firms. Defining competitive advantage in terms of the outcome that it produces presents serious ontological difficulties: both in cases when competitive advantage is posited ex ante and in situations where the chain of causality could be contestable. However, by using the above term competitive advantage, we have limited understanding of competition as distinct from strategy.

2.2.2 Market-based View of Competitive Advantage

The market-based view of competitive advantage is referred to in the literature in a number of ways including: as the position view, the industry organisation (IO) view, Harvard School's environmental models, competitive forces models and also the structure conduct performance paradigm (SCP) (Scherer, 1970; de Wit and Meyer, 1998).

This market-based view is defined as "those characteristics of the organisation of a market that seem to exercise strategic influence on the nature of competition and pricing" (Bain, 1968). Strategy researchers look at the external environment to identify industry attractiveness and market opportunities. Economies of scale, the degree of buyer and/or seller concentration, the degree of product differentiation, industry growth and barriers to entry are usually considered among the most important market (industry) attributes identified as influencing strategic choices (Porter, 1980; Caves, 1980). The market-based view argues that the structural characteristics of an industry have a significant influence on the
ability of firms within the industry to achieve competitive advantage (Porter, 1980, 1987).

The basic principle of a market-led view is that the firm must first identify the core competitive forces within its chosen industry. Then, a firm needs to make appropriate strategic choices to build a competitive position in its industry. It is often believed that by focusing on a specific industry structure, entry and mobility barriers in particular, research may conclude deflects interest from more key issues in strategic management, for instance, measuring performance, recognising and exploiting core competencies, entrepreneurship, restructuring, globalisation, and strategic intent (Prahalad and Hamel, 1990; Hitt, et al., 2001). The concept of barriers to entry in the market-based view is apparent in the research and in the prescription relevant to generic strategies and business typologies (Porter, 1980, 1985; Murray, 1988) and to the perception of strategic groups (Hatten and Hatten, 1987).

Porter’s five underlying forces of competition and generic strategies have proved to be hugely influential in the field of strategic management (Bowman and Carter, 1995; Stabell and Fjeldstad, 1998). The five forces are said to determine industry profitability. The five forces determination of profitability may be overridden by the underlying sector profitability, which arises from the fact that some industries may be inherently more attractive/profitable than others. Generic strategies are useful as they characterise strategic positions at the simplest and broadest level. Porter observes, “The ultimate aim of competitive strategy is to cope with and, ideally, to change those rules in the firm’s behavior” (Porter, 1985:4).
In addressing competitive advantage, Porter (1980, 1985, 2001) presents the concepts of cost advantage and differentiation advantage as two main choices available to firms to gain competitive advantage. A competitive advantage exists when the firm has the capacity to deliver the identical benefits as competitors at a lower cost (cost advantage), and/or the firm can deliver superior benefits to those of competing products (differentiation advantage) (ibid.). Combined, these concepts together represent the Porter “generic strategies”. A third generic strategy is “focus”, a division of the former two.

Porter refers to cost as a source of competitive advantage, which is similar to Hambrick’s (1983) and Dess and Davis’s (1984) cost leadership strategies. Cost leadership strategy emphasises efficiency. By producing high volumes of standardised products, the firm hopes to take advantage of economies of scale, experience curve effects (Ghemawat, 1986) and proprietary learning (Porter, 1985). Cost advantages may be obtained by first mover advantages, cost efficiencies and lower transaction costs or by established relationships with customers, suppliers and partners (Spulber, 2003).

Differentiation strategy involves creating a product and/or service that is perceived as unique, which resembles Miles and Snow’s (1978) prospector strategy. The unique features or benefits should provide superior value for the customer if this strategy is to be successful (Mintzberg, 1988) and competitors cannot easily imitate it (Grant, 1991; Porter, 1985).

The third generic strategy is the focus (or niche) approach. This strategy is based on choosing a narrow competitive scope, or area, within an industry (Miller
and Friesen, 1986). The firm selectively targets a buyer group, a segment of the product line, or a geographic market. The firm then creates a strategy to gain market share over that group, providing the firm whole or partial exclusivity within that market (Porter, 1985).

Porter (1985, 1991) also claims that the strategies are mutually exclusive, or at the very least "at least non-complementary". Firms that attempted to pursue multiple generic strategies as "stuck in the middle", and the end result is that they have no competitive advantage and below average performance. Firms become stuck in the middle for one of two motives. First, they may fail to successfully pursue any of the generic strategies. Second, firms can become stuck in the middle by trying to pursue multiple generic strategies simultaneously (Porter, 1985). Many firms have ignored overall strategy (Barney, 1997; Porter, 2001) or have allowed price to become the primary defining agent, and in many cases sole, competitive variable.

The objective behind Porter’s framework is to provide firms a defined position from which they can best defend themselves against the competitive forces of business, or understanding so that they can influence the forces in their favor. Securing a competitive advantage allows the firm to create superior value, and clear market visibility, to its customers, and thus securing superior profits for the firm. Porter observes that:

"Competitive advantage grows fundamentally out of the value a firm is able to create for its buyers that exceeds the firm's cost of creating it. Value is what buyers are willing to pay, and superior value stems from offering lower prices than
competitors for equivalent benefits or providing unique benefits that more than offset a higher price" (Porter, 1985:3).

Porter (1991:102) introduces the further concept of the `value chain` to explain the process of achieving competitive advantages. He maintains that: “competitive advantage results from a firm’s ability to perform the required activities at a collectively lower cost than rivals, or perform some activities in unique ways that create buyer value and hence allow the firm to command a premium price” (ibid).

Nevertheless, the argument that firms must choose between generic strategies has been challenged, many researchers claim that it is possible to pursue a low cost and differentiation strategy at the same time (see for example, White 1986; Miller and Friesen, 1986; Hill, 1988; Mathur, 1988; Davis and Kay, 1990). Porter’s internal operations proposition was extended by Nanda (1996), who presented strategies as being primarily determined by the external environment.

Treacy and Wiersema (1995) propose that a firm typically choose to emphasise one of following three value disciplines: “product leadership, operational excellence, or customer intimacy” and thus offer another popular generic framework for achieving competitive advantage. These three parameters compare with Porter’s generic strategies discussed above: cost leadership, differentiation strategies and focus or niche strategy. Arguably these three generics are subsets of product leadership, with operational excellence and customer intimacy providing the differentiation.

In the market-based approach, the industrial environment defines the opportunities, risks, resources, and costs firms must take into account in their
strategy. The external environment maintains a central role, influencing with considerable import the company’s strategy and its ability to gain a successful position in the market. Strategy is the result of a one-way interaction between industry and firms, from the external to the internal environment, in line with a strong, established pattern of structure-conduct-performance.

2.2.3 Resource-based View of Competitive Advantage

The “resource-based view” has found favour over the last decade as making a key contribution to theories on how to develop and deliver competitive advantage. It offers a different perspective and is cited frequently (e.g. Lippman and Rumelt, 1982; Wernerfelt, 1984; Barney, 1986; Dierickx and Cool, 1989; Conner, 1991). The resource-based view of the firm, which builds on Penrose’s (1959) pioneering work, considers firms as being collections or bundles of resources and capabilities. The resource-based view argues that variances in firms’ performance can be explained by the availability and/or application of strategic resources, such as core competence (Prahalad and Hamel, 1990), dynamic capability (Amit and Schoemaker, 1993 and Teece et al., 1997), and absorptive capacity (Cohen and Levinthal, 1990).

There are various other possible providers of advantage to firms, such as human capital (Becker, 1964; Black and Boal, 1994), physical capital (Williamson, 1975), technological opportunities and learning, (Teece, 1986) and organisational capital (Tomer, 1987). “Distinctive Competencies” are the best metric when used in defining a firm’s competitive advantage over its rivals (Barney, 1986;
Resource-based theory emphasises the strategic significance of the firm's own resources, which are defined as any entity, tangible or intangible, that the firm has at its disposal to enable it to produce efficiently and/or effectively a market offering that has value for some market segment or segments (Hunt and Morgan, 1995:6).

Grant (1991) proposes an obverse method of defining competitive advantage. He suggests defining the advantage with an inward-looking approach. He claims that competitive advantage stems from a company's internal resources and capabilities, and defines resources as inputs to the production process, where only a few are ever productive. "Capabilities" are defined as the capacity of a team to perform some task or activity, and Grant argues that, while resources are a source of a firm's capabilities, capabilities are the main source of its competitive advantage.

The "resource-based view" ("RBV") of competitive advantage argues that gaining an advantage comes from owning valuable, rare, inimitable, and non-substitutable resources (i.e., so-called VRIN characteristics). According to the RBV, a firm can attain sustainable competitive advantage by developing a value-creating strategy based on aligning their VRIN (Lippman and Rumelt, 1982; Wernerfelt, 1984; Peteraf, 1993). To determine a value-based resource, Collis and Montgomery (1995) provide a series of five parameters: "inimitability, durability, appropriability, substitutability and competitive superiority".

In comparing these two sets of tests it becomes apparent that inimitability in the Collis and Montgomery list does relate to Peteraf's heterogeneity of resources.
In other words the more inimitable the resource, the more heterogeneous the resources are likely to be. The competitive superiority of the Collis and Montgomery list obviously bears a relationship to ex-post limits to competition and ex-ante limits to competition in Peteraf’s list. To an extent imperfect mobility in Peteraf’s list does somewhat correspond to resource durability, appropriability and substitutability but by no means perfectly.

The concept of “core competence” is typically presented as a ready-made solution to that defines nearly all of the competitive shortcomings that live within organisations (Nelson and Winter, 1982; Prahalad and Hamel, 1990; Barney, 1991; Amit and Schoemaker, 1993; Collis and Montgomery, 1995; Chaharbaghi and Lynch, 1999). Prahalad and Hamel (1990) denote core competencies as the collective learning in the organisation, with specific emphasis on the coordinate of diverse production skills and the integration of multiple streams of technology.

Three tests can be applied to identify core competencies: “(1) whether it provides potential access to a wide variety of markets, (2) whether a significant contribution to end user value is made, and (3) whether it is difficult for competitors to imitate” (ibid.). Building on resource-based theory, the sustainability of competitive advantage through durability, mobility and replicability has been considered (Grant, 1995). Stalk et al. (1992) look at capabilities in the same way, but defined them more broadly to encompass the entire value chain rather than just specific technical and production expertise. Potential competitive advantages from competencies built on a variety of foundational resources have also been examined (Chaharbaghi and Lynch, 1999).
According to Barney (1991), a firm’s resource position can lead to sustained competitive advantage, if it enables the firm to create value, if the resources are rare and hard to imitate, and if the advantage is not subject to substitution. He outlines the popular resource based view framework, specifying the source and condition of competitive advantage and sustainable competitive advantage.

However, developing appropriate resources to achieve sustained competitive advantage is an expensive and time-consuming effort (Dierickx and Cool, 1989). Some critical requirements of resources that are necessary to provide sustainable advantage have been highlighted by Morgan and Hung (1999), for instance, imperfect sustainability and mobility. The resource-based view has been criticised for the absence of any generally accepted delineation and classification of resources in general (Collis, 1994; Deligonul and Cavusgil, 1997; Werbach, 2000; Priem and Bulter, 2001) and for marketing specific assets and capabilities (Day, 1994; Hunt, 2000). Briefly, “the tenets, premises and assertions of resource-based view to date have largely avoided direct contact with the concept, intent and prerequisites of marketing” (Srivastava et al., 2001).

The resource-based views on strategy offer the framework in which key factors are listed. By employing a resource-based view on strategy, a firm is able to itemize an organization's characteristic, in turn allowing it to understand and perform better than its competition. It is possible for resources have both tangible and intangible components that bring superior value to one or more segments of customers (Hunt and Morgan, 1995). It is important to note that resource is not
strictly to an internal definition, and some of the most relevant frameworks focus on organisational skills and resources that are components of the competitive advantages of service business (Bharadwaj et al., 1993). This suggests that "market-driven organisations are superior in their market sensing and customer-linking capabilities" (Day, 1994).

The resource-based view ("RBV") is developing in the same way as the market based view. However, overall they remain unconnected in relation to the concepts of marketing and marketing assets (e.g. brand, customer relationships), (Srivastava et al., 2001). Both theologies concentrate on an organisation's need to invest in strategic resources, assets, and competencies that foster a sustained competitive advantage, and therefore have the capacity to provide greater profitability. This appears to be the opportunity for the two research areas to be more closely coordinated. RBV proponents acknowledge the importance of leveraging research outside the traditional strategy area to develop itself further (Eisenhardt and Martin, 2000), and supporters of the marketing call for a more rigorous approach to show the relationship between the focus of its activities and shareholder value (Doyle, 2000).

The RBV could offer a pattern for convergence in the strategy and marketing literature (Srivastava et al, 2001). The RBV advises that management create a greater advantage by "combining, developing, and utilising resources to create more valuable results than competitors" (Conner, 1991; Conner and Prahalad, 1996; Teece et al., 1997; Bowman and Ambrosini, 2000; Barney. 2001). However, accumulating stocks of potential rent-generating resources is not enough (Teece and Pisano, 1994). Profitable leadership in RBV requires creativity.
imagination, entrepreneurship, and long-term investment in resources (Conner, 1991). The scholars see a clear parallel between the relation-based view of leadership and Levitt’s view of the marketing concept and imagination (Levitt, 1986).

While there does appear to be an opportunity for union, there are differences between market-based and resource-based views which wide and radical. The resource-based view delimitates the two primary assumptions on which the environmental models are based: 1. Firms have homogeneity of resources and opportunities while operating in the same industry. 2. Perfect resource mobility.

Although the resource-based view (RBV) has been very popular, it has been criticised on many counts. Priem and Butler (2001) challenge the fundamental definition of the resource-based view maintaining that, “it is tautological, non-falsifiable, unbounded and unworthy of the status of a theory” and assert it is lacking external measures of value against which to determine the value producing capability of the utilised resources (also see the response from Barney, 2001). Hooley, Moller and Broderick (1998) take a slightly less radical position and criticise the resource-based view for its inward focus. The problem with an inward focus is that risks are often ignored in market demand.

Mainstream resource-based scholars have only been able to provide, at best, a very generic definition of “valuable resource” (Bowman and Ambrosini, 2000). Williamson (1999:1094) proposes, “big ideas often take a long time to take on definition” and suggests that the useful operationalisation of key terms like
“competence” and “capability” may pass for years without being refined. In addition, it is argued that while the resource-based view fails to set down strategic actions a priori despite its powerful description.

Supporters of the RBV evade the issue of the time duration of sustainability by stressing that a sustained competitive advantage exists only given that another firm is not able to reproduce a firm’s competitive advantage (Barney, 1991). It is not a sufficiently effective or useful strategy to merely advise managers to acquire, and/or develop, resources that are rare, valuable, inimitable and not substitutable.

Further, one of the indispensable assumptions of the RBV is that VRIN resources lead to sustained competitive advantage. This theory does not seem to apply in high-velocity markets (Eisenhardt and Martin, 2000). With the presence of hyper-competition and the increased pace of change in these markets, competitive advantage is captured in a series of short bursts, not over one durative period.

The resource-based view has been expanded with the dynamic capabilities perspective to emphasise the realities of high-velocity markets. Resource based view has not adequately made clear why certain firms have competitive advantage in situations of fast and unpredictable change. Researchers have introduced the dynamic capability concept and extended the resource based view to dynamic markets. Eisenhardt and Martin (2000:1107) defined a dynamic capability as a firm’s methods to ‘integrate, reconfigure, gain and release resource- to match and even create market change.’ This allows the firm to be able to reconstruct and renew internal and external organisational resources, skills and competences in fast changing environments (Teece, 1982; Wernerfelt, 1984).
The resource-based perspective and the market-based view may be seen as complementary as they are concerned with different domains (i.e. internal and external respectively). Both internal and external indicators have significant effects on firm performance (Hansen and Wernerfelt, 1989; Rumelt, 1995; Brush et al., 1999).

2.2.4 Alternative Views of Competitive Advantage

The weaknesses of the previous two approaches has led to the creation of a number of views in addition to the market-based and resource-based theory of competitive advantage. Views such as (1) relationship-based (Grönroos, 1997; Morgan and Hunt, 1999), (2) identity-based (Fiol, 2001), (3) Game theory, and the (4) Hypercompetition view (D’Aveni, 1994) have all emerged from weaknesses in market and resource based competitive advantage. Given the importance of competitive advantage to this paper, these other views will be now examined in some detail.

(1) The relationship-based view is an attempt by marketing scholars to apply this view as a framework to advanced marketing theory (Day, 1994; Morgan and Hung, 1999). Ganesan (1994) claimed that, “most firms overlook the sustainable competitive advantage that can be created through long-term relationships”. Morgan and Hunt (1999) also noted that, “academics have neglected the search for explanations as to how to create sustainable competitive advantages based on relationships.” The relationship based competitive advantages (RBCAs) focus on long-term marketing relationships with customers and business (Kotler, 1991). Firms
favouring RCBAs tend to seek other like minded organisations with which to develop long term marketing relationships. Their goal is to achieve higher customer retention rather than capturing new customers (Kotler, 1991). Morgan and Hunt (1999) employed resource based view to explain the relevant resources in relationship based competitive advantage views. They looked at different types of resources gained in marketing relationships including: financial resources, legal resources, physical resources, human resources, organizational resources, relational resources, and informational resource, and claimed that “building relationship marketing theory requires isolating the kinds of resources that can be secured through marketing relationships”. Morgan and Hunt (1999) emphasised that it is crucial to recognise: “the resources needed from the gained through marketing relationships; the suitability of various partners from economic, strategic, and social perspectives; and the sustainability of advantages that arise when relationship marketing strategies, based on specific resources, are pursued”.

This agrees with the market-led view, where the study and analysis of competitive strategy and the pursuit of competitive advantage are required to focus on output rather than input concerns (Mathur, 1988; Czepiel, 1992; Bowman and Faulkner, 1997).

(2) The identity-based view sees organisational identity as a core competency leading to competitive advantage. It should be perceived as a supplement to the resource-based view and therefore will not be discussed separately in this thesis.
Traditional approaches to strategy emphasise building advantage, but the concept of hypercompetition also views strategy as the creative destruction of an opponent’s edge. Several strategists (e.g. Brown and Eisenhart, 1998; D’Aveni, 1994) have argued that at the firm level hypercompetition is “characterised by intense and rapid competitive moves, in which competitors must move quickly to build (new) advantages and erode the advantages of their rivals” (D’Aveni, 1994:217). This is also described as “high velocity competition” (Brown and Eisenhardt, 1998). Traditional sources of competitive advantage cannot be executed over extended periods of time according to the “hypercompetition” view. Firms must continually foster advantages through guidance in four arenas: quality and price, timing and executional knowledge, stronghold creation/invasion, and large spending budgets (D’Aveni, 1994). Large spending budgets enable the firm to have the resources to maintain leadership in all areas. Maintaining leadership might require the demolition of old sources of advantage to enable the firm to create a group of short-term advantages. These are expanded using a new set of ‘7Ss’ strategies: “superior stakeholder satisfaction, strategic soothsaying, speed, surprise, shifting the rules of competition, signaling strategic intent, and simultaneous and sequential thrusts” (D’Aveni, 1994).

The strategy literature has begun to focus on managing change as the central strategic challenge. In Competing on the Edge, Brown and Eisenhardt (1998) advocates a strategy based on what she calls “competing on the edge”, combining elements of complexity theory with evolutionary theory.
Arguably, Yip (2003) has taken the idea of competitive advantage to another more comprehensive level. He maintains that successful companies have not one, but multiple bases of competitive advantages, which fall into six main categories, namely, customer market, product/service, value chain, assets/resources, partner and scale/scope. It is argued that a firm can start with any base mentioned above, but needs to build its strength and gain other bases in order to gain competitive advantage.

Miller and Chen (1996) add another dimension to the debate by introducing the concept of competitive simplicity. The central idea is that the more a firm concentrates on one area of competitive action the worse its performance. In addition, these authors find that firms, which do not conform to conventional competitive practices, tend to perform better. This is interesting because it is contrary to IO and competitive advantage economics.

Although the above alternative views are insufficiently comprehensive to be regarded as mainstream in competitive advantage literature, they indicate the importance of linking the resource-based view with marketing. Notwithstanding a growing literature dedicated to advancing resource-based views both conceptually and empirically, there are a number of obvious issues that call for further theoretical and empirical attention. In short, there is a need for a more sophisticated understanding of the nature of resources in action in order to gain sustainable competitive advantage (Haanas and Fjeldstad, 2000), especially from a marketing perspective.
2.2.5 Sustainable Competitive Advantage

Competitive advantage is the term used for ways in which firms seek to use business strategies to build cost and product leadership and focus (Porter, 1985; Prakash, 1998). The idea of a sustainable competitive advantage appeared in 1984, when Day (1984:32) recommended categories of strategy that might help to "sustain the competitive advantage". Porter (1985) was the first to introduce the term "sustainable competitive advantage" and discussed the basic types of competitive strategies firms can use to achieve sustainable competitive advantage, namely low cost or differentiation. Barney (1991:102) has provided the closest to a formal definition of sustainable competitive advantage,

"...a firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy".

The primary basis of long-run success for a firm is the accomplishment and preservation of a sustainable competitive advantage. In effect, understanding which resources and firm behaviours lead to sustainable competitive advantage is considered as a fundamental subject in marketing strategy (Varadarajan and Jayachandran, 1999).

Alderson (1965) offered three bases for differentiation advantage, namely: "technological, legal, and geographical"; and four strategies for achieving differential advantage, which are: "segmentation, selective appeals, transvection, and differentiation". Very early in the development of these ideas, marketing
concepts were thought to be important to achieving advantage. Given the time of Alderson's claims, they still can be considered modern by today's standards.

Porter (1985:11) asserts that sustainability is obtained when "advantage resists erosion by competitive behaviour". This is owing to the existence of barrier that made replication difficult. Additionally, sustainability can only be created when the given resources and capabilities are resilient, specifically, they do not physically depreciate.

Potential sources of sustainable competitive advantage are many and varied. For instance, size in the targeted market (Ghemawat, 1986), lower cost (Hall, 1980), most differentiated position (Hall, 1980; Henderson, 1983; Caves and Ghemawat, 1992) are three pretty basic sources of advantage. In the rapidly changing business environment, adapting better or fastest compared with competitors and restricting competitors' business options (Henderson, 1983; Ghemawat, 1986; Prahalad and Hamel, 1990; Peteraf, 1993) are useful attributes.

Other competences are cited as adding value including; imperfect substitution resource mobility (Peteraf, 1993), superior skills and superior resources (Ghemawat, 1986; Day and Wensley, 1988; Peteraf, 1993), various intangible resources (including assets and competencies) that allow firms to possess relevant capability differentials (Hall, 1993) and rareness and inability to be imitated (Dierickx and Cool, 1989; Barney, 1991).

Based on the resource-based view, a number of resources typically associated with marketing are potential sources of sustainable competitive advantage, for instance, technology development (Shapiro and Varian, 1999), being
brands and reputation (Grant, 1991; Barney, 1996), higher customer experience (Barney, 2001), deep customer relationships and advanced product development (Eisenhardt and Martin, 2000), and channel and partner relationships (Srivastavav et al., 2001).

The above-mentioned dynamic capabilities view (e.g. Teece et al., 1997), which has emerged from the resource based view (Penrose, 1959; Barney, 1991), attempts to identify sources of value creation and realisation in conditions of rapid change. In particular, the dynamic capabilities view emphasises capabilities that can be sources of sustainable competitive advantage, and endeavors to explain how these dynamic capabilities can create successful resource configurations.

Numerous actions have been taken to realize sustainable competitive advantage. These actions include aggressive pricing and advertising competition (Vilcassim et al., 1999), innovation (Banbury and Mitchell, 1995), competitive differentiation (Caves and Ghemawat, 1992), first mover advantages and rapid response to competitive challenges (Ferrier et al., 1999; Makadok, 1998), or broad repertoires of actions (Ferrier et al., 1999).

A number of researchers have examined the sustainability of competitive advantage. Coyne (1986) develops the idea of "capability gaps" and explains the conditions needed for a sustainable competitive advantage to exist. Bharadwaj et al. (1993) evaluate sustainable competitive advantage in a services marketing context and conclude that a sustainable competitive advantage exists only if customers recognise it. Day and Nedungadi (1994) argue that a firm's use of strategy and its reaction to the environment depends on its orientation, which can
either be customer-oriented or competitor-oriented, and competitive advantage is based on these orientations. Hunt and Morgan (1995) contrast comparative advantage theory and neoclassical theory of a firm and propose that comparative advantage in resources can convert into a competitive advantage in the marketplace. Oliver (1997) designs a model of firm heterogeneity, which introduces the idea that both resource capital and institutional capital are crucial to long-term competitive advantage. Srivastava et al. (1998) group market-based assets into two main categories: relational and intellectual. Mostly intangible, these assets may be influenced to achieve sustainable competitive advantage if they can add distinctive value for customers.

Although there has been substantial progress over the years in terms of definition of construct, operationalisation, and measurement of concepts of sustainable competitive advantage in the marketing strategy field, research remains to be lacking as to how a particular strategy can affect performance by providing firms with a sustainable competitive advantage (Varadarajan and Jayachandran, 1999).

### 2.2.6 Barriers to Achieving Competitive Advantage through the Internet

However, several attributes of the Internet have been claimed as impediments preventing firms from gaining competitive advantage. Indeed in the early days of Internet use, the Gartner Group determined that 90 per cent of enterprises with Web-based applications did not derive any competitive advantage from them (Taylor, 1995). Meanwhile, Anderson and Popkin (1996) suggested that
only 10 per cent of intranet deployments yielded any useful competitive advantage. The Internet has also lowered barriers to entry (Chatterjee and Narasimhan, 1994; Makadok, 1998; Choudhury et al., 1998) and made many companies appear similar, (Dholakia and Rego, 1998). In summary, the Internet presents a serious threat to established players in an industry, (Serwer, 1995; Ghosh, 1998; Brandtweiner, 1998). The most studied issues are “returns of power and control back to the customers”, “security and trust”, and “lack of human contact”.

- **Returns power and control back to the customer** — “The Internet will empower consumers like nothing else ever has.” (Gary Hamel, Fortune, 2000).

Customers are in greater control when using the Internet (Dholakia and Rego, 1998).

The Internet intensifies the competition among firms, it enables customers to reduce their search costs, (Malone et al., 1987), which allows consumers to ‘go between service providers’ (Vandermerwe, 1999), as a result customers are more empowered than ever (Hoffman and Novak, 1996; Peppard, 2000; Zott et al., 2000; Porter, 2001; Dussart, 2001; Strauss and Frost, 2001).

Furash (1999) compiles a comprehensive list to analyse why the Internet has provided consumers with more power than traditional channels, suggesting it is because the Internet:

- breaks the mass market into individuals. Each consumer is allowed to do his/her own thing in his/her own way online. Standard products /services are replaced by customised and/or segmented products/services. The “market of one” is possible online.
- allows consumers to execute their choices with complete freedom, and under their own control. There is no time and/or geographic restriction.

- allows consumers to escape sellers' interference when buying. The consumer hunts for the sellers online, not the other way around.

- provides consumers with the opportunity to get the objective, unbiased plain information they seek in making a buying decision.

- commoditises all products and enables instant price comparison. This allows consumers to change buying behavior radically by being able to search and compare on a scale previously not thought possible. The transparency of the Internet enables consumers to choose their perceived best price and/or quality goods (services). Consumers are also able to compare prices directly through aggregate web sites (e.g. www.moneysupermarkets.co.uk) without going to each store.

- enables consumers to search efficiently rather than wander through stores.

- allows consumers to store and retrieve protected data in Internet sites quickly.

- enables information to be assembled, analysed, and returned to consumers rapidly.

- **Security and Trust**—Security and Trust were cited as the top impediments to retail e-commerce (CommerceNet, 2000). Security has been widely recognised as one of the main obstacles to the adoption of electronic banking (Zeithaml *et al.*, 2002; Aladwani, 2001).
Security is defined as a threat which creates "circumstance, condition, or events with the potential to cause economic hardship to data or network resources in the form of destruction, disclosure, modification of data, denial of service, and/or fraud, waste, and abuse" (Kalakota and Whinston, 1997). Under this definition, threats in Internet banking can be made either through network and data transaction attacks or through unauthorised access to the account by means fraudulent authorization. The concept of security is the "customers' perception of the degree of protection against these threats".

The concept of trust has been studied extensively. In marketing literature, Rotter (1967:651) defined trust as "a generalised expectancy held by an individual that the word of another ... can be relied on." This quote has frequently been cited by other researchers (e.g. Crosby et al., 1990; Hunt and Morgan, 1994). Following the work of Yousafzai et al. (2003), this research defines customer’s trust in relation to Internet banking as, "a psychological state which leads to the willingness of the customer to perform banking transactions on the Internet, expecting that the bank will fulfill its obligations, irrespective of the customer’s ability to monitor or control the bank’s actions". Aladwani (2001) identified customers’ trust as an important future challenge for online banking.

Security and trust issues may be more significant in Internet commerce than in off-line operations (Ratnasingham, 1998). The reason for this is that the successful nurturing of trust is largely important when uncertainty and risk are inborn to an industry like Internet businesses. Further, contracts and warranties are often absent in the online transactions. Hence, online security and trust issues have been studied in the literature at length.
Trustworthiness of the Internet business, of the Internet shopping medium and appropriate factors were identified as the main qualifications of trust (Lee and Turban, 2001). Trustworthiness includes (1) customer perceived trustworthiness and (2) trustworthiness of the Internet in general as a transaction intermediate.

(1) Perceived trustworthiness - Ridings et al. (2002) advised that perceived trust has two dimensions; namely “ability and the combined concepts of integrity/benevolence”.

Sztompka (1999) suggests three dimensions for a customers’ perception of trust: a firm’s reputation; its performance; and its appearance. Reputation has great influence on a customer’s willingness to transact with others (Hill, 1990). De Ruyter et al. (2001) also propose that having a good organisational reputation has impacts on the perceived risk, besides the trustworthiness of the organisation.

Regarding a firm’s performance, customers tend to rely on a firm’s most recent information and its current performance in assessing its trustworthiness (So and Sculli, 2002). Appearance denotes that of a firm’s premises and products, and that of its employees, agents, or to those who have direct contact with customers, for example sales representatives or service personnel (ibid.). Appearance sometimes is understood as “image; a good image can improve trustworthiness” (Mitchell, 2000).

Customers’ perceived trustworthiness can be built by firms’ long-term relationship development and maintenance (Cheskin, 1999; Gefen, 2000). Cheskin (1999) suggests that trust intensifies or withdraws, based on experience: “trustworthiness is about experience over time”. Gefen (2000) studied the role of
familiarity and trust in the Internet arena. The study demonstrated that customers’ intentions to engage in Internet shopping are influenced by their knowledge with an Internet seller and shopping processes and trust in the ensuing operation. In addition, familiarity certainly builds trust, but it is primarily people’s temperament to trust that affects their intentions. Warrington et al. (2000) recommend that as the relationship between customers and sellers develops, better trust will lead to positive perceptions, customer loyalty, and customer retention. Retention is crucial to company growth and profitability (Katz and Shapiro, 1992; Ennew and Binks, 1996) and online customers worry being trapped with a loser company and thus suffering switching costs (Fichman and Kernerer, 1993).

(2) Trustworthiness of the Internet in general as a transaction medium (e.g. technical competence, performance level, medium understanding)

Smith et al. (2000) proposed indicators of online trust, which include: site longevity, selection of items, online community, links to and from other sites, search engines on the site, and privacy. Urban et al. (2000) claimed that quantity, quality, and timeliness of information on the website were the major factors and suggested that companies provide virtual advisors, unbiased information, keep promises, and offer reliable fulfillment, in order to improve online trust. Cheskin (1999) carried out an e-commerce trust study with Studio Archetype.

McKnight et al. (2002) studied structural assurance, perceived web reputation and perceived web quality and proposed these three factors for building trust in the vendor: “structural assurance, perceived web reputation and perceived web quality”. Dayal et al. (1999) studied the issues of building consumers online
trust and developed a trust pyramid, which contains: state of art security, merchant legitimacy and fulfillment as the core elements of online trust. The pyramid can be built through customer control, tone, and consumer collaboration.

Privacy is one of the most vital issues for online consumers (Benassi, 1999; Culnan and Armstrong, 1999; Hoffman et al., 1999; Smith et al., 2000; Warrington et al., 2000; Udo, 2001; Ridings et al., 2002; Belanger et al., 2002; Mukherjee and Nath, 2003). Privacy is defined as the rights of individuals to decide when, how, and to what extent information about them is to be transmitted to others (Grandinetti, 1996:25). Most consumers are hesitant to give their personal details to an anonymous communication channel like the Internet, particularly with information related to financial status and credit facilities (So and Sculli, 2002). To conquer this weakness, some companies are employing new software and technologies at an unprecedented rate to help their consumers safeguard their anonymity, keep credit-card details safe and educate them about security issues, suspicious emails and web sites (Udo, 2001). Some commercial organisations and governments are investing heavily in setting up secured methods of transferring data online (Udo, 2001). McCandlish (2002) has provided consumers with the top 12 technical methods to guard their privacy online. Disclosing the web sites’ terms of privacy and assurance their consumers that fair procedures are applied, will reduce consumers’ perceived privacy concerns (Benassi, 1999; Cheskin, 1999; Culnan and Armstrong, 1999). Customers will feel comfortable regarding their privacy concerns, thus leading to improved trust for Internet transactions (Benassi, 1999).
Hoffman et al. (1999) propose that lack of environmental control and control over the use of secondary information leads to the development of a negative perception about security and privacy concerns respectively. Gefen and Straub (2000) proposed that social presence affects customer’s trust in e-commerce, which in turn affects their intentions to engage in online transactions. Belanger et al. (2002) produced a series of “trust indices”: third party privacy seals, privacy statements, third party security seals, and security features.

Trust could also been built through communication with customers (Mukherjee and Nath, 2003). Ba and Pavlou (2002) considered “The effect of feedback mechanisms on trust in electronic markets”. They studied: feedback mechanisms, price premiums and product prices and concluded that positive economic outcomes, such as increased price premiums are based to a considerable degree on customers’ trust in sellers’ credibility. Ridings et al. (2002) recommended that firms use virtual communities to get information about customers’ perception and interest and therefore build trust between customers and the firm. Mukherjee and Nath (2003) in “trust in online relationship banking” considered the following: shared values and opportunistic behavior. They suggested that shared values, reputation, security and privacy are the important determinants of trust and lead to relationship commitment.

A number of commentators have discussed the need for human contact and physical relations, for example:
- **Lack of human contact** — "We must talk face to face, customers tell bankers" (Poulter, 2000). On physical needs - virtual activities do not abolish the need for physical activities (Zott et al., 2000).

The role of the sales person has been fundamental to building relationships in conventional marketing (Harridge-Marc, 2004). Albeit the Internet can replace some of the activities provided by the sales representatives (for example, providing customers’ information and confirming purchase orders), there are certain activities undertaken by sales person cannot be replaced (in particular, answering customised questions and providing reassuring results). This unwanted substitution may lead to lower customer loyalty (Kalakota and Whinston, 1996).

For many customers, the lack of personal interaction may be detrimental to their interest in engaging in Internet banking, "the social interchange involved in some marketing channels adds to the enjoyment of undertaking a transaction" (Harris et al., 2000). To improve this inbuilt Internet weakness, companies are trying to replace the traditional interaction with individual sales /service staff online, e.g. introducing digital "people" or avatars to respond customers’ questions in "real time" (Harridge-Marc, 2004). Internet communities, like chat rooms or forums, can also enhance a shopping experience by enabling interaction with other consumers.

While competitive advantage has received a great deal of empirical support in traditional business contexts, there is a need to explore whether Porter’s generic strategies and/or resource-based views can be applied in the context of Internet
businesses (see for instance, Smith et al., 1999). We will now consider this issue in more detail in the next section.

2.3 INTERNET AND RETAIL BANKING

This section discusses the use of the Internet in Retail Banking. It opens with an overview of the Internet and the advantages that the Internet has delivered. Next there is a brief history of retail banking and a discussion of alternative delivery mechanisms for retail banking products and services. The chapter then considers Internet strategies, including sophistication of Internet usage and timing of Internet entry, followed by an examination of the characteristics of retail banks. After that, the main competitive advantages achieved by using the Internet are identified, and then there is an overview of the barriers to achieving such competitive advantage.

2.3.1 Internet

The Internet was initially developed by the US Department of Defence Research Projects Agency during the 1960s, and can be defined as: `a vast worldwide system consisting of people, information and computers' (Hahn, 1996:2).

The Internet suffered from the typical hype cycle of a new technology with the 90s myth being that the traffic on the Internet was doubling every three months (Odlyzko, 2003). When the technology sector saw a slowdown at the beginning of this decade, some people like the CEO of Nortel even talked about a reduction in
Internet traffic, although this was incorrect (ibid.). The Internet has actually settled down with approximately 100 per cent per annum growth (Odlyzko, 2003).

Along with this growth, many scholars believe that the Internet is generating a revolution in the way that business is conducted. For instance, Peterson et al. (1997:340) maintained, “...it is already clear, however, that the Internet is changing the rules by which marketing is conducted and evaluated”. Hoffman and Novak (1998) claimed that the Internet may “radically transform the way individuals go about conducting their business with each other, but also the very essence of what it means to be a human being in society”. In constrast, Coltman et al. (2001) viewed the Internet business revolution as a myth. The Internet revolution is likely to increase business productivity. The increase has been estimated at .25 to .5 per cent in the United States (Litan and Rivlin, 2001).

Booz-Allen and Hamilton (1999) claimed that over 90 per cent of senior managers believe the Internet will transform, or have a major impact, on the global market by 2001. Shapiro and Varian (1999) suggested that many managers are so focused on the “trees of technological change” that they neglect the “forest of underlying forces or principles that decide success and failure”. An example of this would be the key issue of the perceptions of Internet security, an issue discussed repeatedly in this thesis. The Internet stores managers should begin thinking about how to reduce the risk perception rather than focusing on shopping convenience (Bhatnagar et al., 2000).

Technically, the Organisation for Economic Co-operation and Development (OECD) defines electronic commerce as: “commercial transactions, involving both
organisations and individuals that are based upon the processing and transmission of digitalised data, including text, sound and visual images and that are carried out over open networks or closed networks that have a gateway into an open network''.

Many scholars have presented useful definitions of Internet business or e-commerce (Kalakota et al., 1999; Rayport and Jaworski, 2001). Electronic commerce can be defined as the exchange of goods and services using computers and networks (Kalakota and Whinston, 1996). Zwass (1996) considered e-commerce as “the use of Internet technologies to share business information, maintain business relations, and to conduct business transactions”. Storey et al. (2000) defined it as activities that directly support commerce by means of electronic solutions. According to Kalakota and Whinston (1997) “...electronic commerce emphasises the generation and exploitation of new business opportunities” and, to “generate business value” or “do more with less”.

The Internet has also become one of the most discussed topics in business and the media. Even as early as 1996, it was having a huge impact with over 90 per cent of Fortune 1000 companies using Internet applications (Koulopoulos and Palmer, 1996). Hoffman (2000:1) described the Internet as “the most important innovation since the development of the printing press”, with the potential to “radically transform not just the way individuals go about conducting their business with each other, but also the very essence of what it means to be a human being in society”. It is also expected to be adopted throughout modern day society, (Hagel and Armstrong, 1997) and to revolutionise business (Martin, 1996). The Internet is described as the one asset that can be used by corporations to improve their competitive position (Cappel and Myerscough, 1996). The Internet will alter
industry structures by allowing disintermediation of distribution channels by eliminating wholesale functions (Enslow, 2001). Ziegler (1996) asserted that the Internet should be the link between a company and its suppliers and customers because it is inexpensive, available to millions and works well. It will extend the delivery of information, services and computing power to end consumers (Shneiderman, 2000), thereby turning traditional customers into users of online applications (Riechen, 2000). In today's dynamic marketplace, top managers need information available at their fingertips. Today, the Internet reduces the affect of "middleman" present in most organisations (Brabston and McNamara, 1998).

Christensen and Tedlow (2000) assert that the Internet will change the basis of competitive advantage in retailing. The Internet enables retailers to improve their 4Ps mission: - product, price, place and promotion. The Internet is also playing an increasing role in helping to deliver superior customer value. This results in competitive advantage and superior corporate performance. The implications of the Internet create vast opportunities for organisations as well as new challenges.

Some researchers were quick to recognise the potential of the Internet to affect competitive advantage from a marketing point of view. Porter (2001) argued that the Internet is not disruptive to most existing industries and companies because it does not nullify important sources of competitive advantage—in fact, it often makes them even more valuable. However, Porter's view (2001) of the Internet is a great paradox because Internet technology makes information widely available (e.g. Evans and Wurster, 1999; Zott et al., 2000), reduces the complexity of purchasing, marketing, and distribution processes, enables buyers and sellers to
locate each other (e.g. Dutta and Biren, 2001), and engage in business transactions with one another with greater ease. All these attributes have also made it more difficult for companies to capture those advantages, since their competitors can be equally competent in doing the same.

The proponents of the resource-based view (RBV) of the impact of the Internet also argue that firm-specific competencies and resources (e.g. intangibles such as organisational knowledge, customer orientation) that are difficult to replicate, determine how firms leverage the Internet for sustained advantage.

Evans and Wurster (1999) claimed that three unique characteristics of the Internet: namely reach, richness, and affiliation will affect the competitive advantage in the Internet arena:

- Reach—refers to the access and connection between the business and its customers, i.e. the number of customers a business can connect with and the amount of products it can offer to those customers. Evans and Wurster (1999) have broadened the definition of reach from “eyeballs” on the Internet to the upstream reach to a variety of products and suppliers as well. Indeed, there has been a consensus that the Internet has created a borderless global economy where marketers can reach a much larger number of people than via traditional media (for example, Quelch and Klein, 1996; Evans and Wurster, 1999; Peppard, 2000; Zott, et al., 2000; Anderson, 2000; DeYoung, 2001; Dutta and Biren 2001; Porter, 2001; Bakos, 2001).

- Richness—refers to the ‘depth and detail of information’ that the business can offer their customer through the net, which also includes the depth and
detail of information it collects about their customers (Evans and Wurster, 1999). This enables sellers to get more information about consumers’ buying behaviour and characteristics and therefore improve their service (Walsh and Godfrey, 2000; Zott et al., 2000; Pant and Hsu, 1995; Martin, 1996). The information obtained through the Internet can be used to monitor consumer buyer behaviour (Swaminathan et al., 1999; Ilfeld and Winer, 2001), study customer segmentation (Balabanis and Vassileiou, 1999) and identify customers needs and demand (Ghosh, 1998; Rao, 1999; Mols, 2000; Slywotzky and Morrison, 2000; Grönroos et al., 2000; Baker et al., 2001; Seybold, 2001; Ashill and Jobber, 2002) ubiquitously and at much lower cost. The effective use of the Internet makes ‘one-to-one’ relationship marketing possible via an interactive medium (Shih, 1998).

- Affiliation—reflects the interests the business represents. For example, creating virtual communities can benefit both consumers and vendors (Hagel and Armstrong, 1997; Zott et al., 2000; Kotler and Armstrong, 2001:671). However, Reichheld and Schefter (2000) maintain that although the Internet is a powerful tool for strengthening buyer and seller relationships, the basic laws and rewards of building loyalty remain unchanged.

Some advantages of the Internet have also been extensively explored. For example, it allows business re-engineering (Bloch et al., 1996), savings in work in progress (Coup, 2005), use of information technology, (Gloede, 1996; Ives and Learmouth, 1984), speedy information delivery (Pennathur, 2001). It is ubiquitous, allowing ‘24x7’ communications with customers and internally (Lederer and
Putnam, 1986; Melville, 1993; Miniace and Falter, 1996; Inkpen, 1996; Meta Group, 1996; Koulopoulos and Palmer, 1996; Terhune, 1997; Coupey, 2001; Pennathur, 2001), more personalised interactions than any previous medium (Ghosh, 1998; Rao, 1999; Mols, 2000; Grönroos et al., 2000; Baker et al., 2001; Seybold, 2001), cross-selling (Vandermerwe, 1999), and lower cost than other service delivery channels (Pant and Hsu, 1995; Peppard, 2000; Mols, 2000; De Young, 2001).

The advantages of the Internet and its advantages in retail banking will be discussed in more detail in the research framework section 2.3.2.

2.3.2 Retail Banking Sector in the UK

Financial services as a whole, is one of the much quoted and studied industries in the literature in general, with research on topics as diverse as bank competition (Heffernan, 2002), marketing (Harrison, 1999; Howcroft, 1989), branding (de Chernatony et al., 2004), offshoring (McLaughlin and Fitzsimmons, 1996, Lowes and Woosley, 2004) and Information Technology (Devlin, 1995). All of these topics are discussed in relation to their effect on competitive advantage in the financial services industry. Retail banking has also seen considerable discussion in the area of gaining competitive advantage through marketing, (Dibb and Meadows, 1992) and customer retention (Kubis-Labiak, 2004). However, in the past relatively little attention has been paid to gaining competitive advantage through the Internet. In the Insurance sector, there was a major study by the Economist and PriceWaterhouseCoopers into the importance of E-insurance (Economist and PWC, 2001).
The nature of banking services, especially those based on information, has changed dramatically with the application of IT and the Internet (O'Keefe et al., 1998). Entire industries have been reformed based upon the use of information and knowledge to price and sell a service, and IT to reach and deliver to a market (Glazer, 1991). For this reason, the service sector is the chosen area of study owing to its more obvious fit with the Internet than the manufacturing, transport or other sectors.

Financial services are an important product that all economically active individuals are obliged to use (Davies, 1996). One of the financial service sectors that appear to be most affected by the Internet is retail banking (Dannenberg and Kellner, 1998; Barnatt, 1998; Daniel, 1999). Nevertheless, existing studies of the adoption of the Internet in the retail banking sector are largely anecdotal, due to the Internet's comparative novelty. Within the financial services industry, banking is the largest sector, and comprises a wide range of activities. Although there are several types of banks, for example, retail, commercial and investment banks. This study will only consider the retail banking sector. The rationale is that as retail banking represents one of the largest and most influential activities of any developed economy with strong linkages with every part of the economic system. For instance the 2004 report of the Welsh Development Agency says that 5 per cent of the Welsh economy is made up of financial services of which over half is banking (WDA report, 2004). In addition, the banking sector as a whole is intimately involved in both economic activity and growth. Indeed it is the instrument of control of money supply and therefore the instrument of economic strategy through the use of monetary policy (Issing, 2002). It is also a pervasive
sector in the sense that is interacting with all other industrial sectors, all of which require its products and services. The retail banking sector is a key part of this being both the conduit for a considerable amount of the nation’s savings and the enabler of personal borrowing. For instance 93 per cent of UK consumers utilise banking services (BBA, 2005).

Technology is making a dramatic impact upon the retail-banking sector, (Jayawardhena and Foley, 2000; Durkin, 2004). During the 1970’s, the branch network was the main delivery channel that the consumer used for retail banking (Devlin, 1995). In the 1980’s banking was characterised by physical decentralisation with scattered branches around more populated areas. Retail banks believed that a large branch network gave consumers greater geographic access as well as a sense of security (Jayawardhena and Foley, 2000). From the 1970’s, ATMs (Marr and Prendergast, 1993; Rugimbana and Iversen, 1994), telephone banking (Locket and Littler, 1997; Al-Ashban and Burney, 2001), interactive television and lately, m–banking (banking using a mobile platform such as mobile hand phone or personal digital assistant) have all become ways of delivering products with ease, speed and in a customer friendly way. ATM, telephone and home banking have begun to take up more than 50 per cent of all banking transactions. Indeed, total non-branch activity is expanding at a rate of 15 per cent per year (Hutchinson and Warren, 2003).

The introduction of the ATM revolutionised the delivery of financial services, and began the shift towards electronic banking (Moutinho and Smith, 2000). However, the nature of banking services, especially those based on information, has changed dramatically with the application of the Internet (O'Keefe
Datamonitor (2004) predicted that 95 per cent of Britons will be using telephone and/or Internet banking by the year 2020. Entire industries have been reformed based upon the use of information and knowledge to price and sell a service, and the Internet to reach and deliver to a market (Glazer, 1991). For this reason, the service sector is the chosen area of study owing to its more obvious fit with the Internet.

Sullivan (2000) maintained that most retail banks tend to use the Internet to delivery services in a manner that is generally consistent with their business strategies. Channel research in the marketing literature has begun to focus on Internet-based electronic commerce as a part of the firm’s multiple channels of distribution strategy (e.g. Geyskens et al., 2002). Frazier (1999:232) observed, “the use of multiple channels of distribution is now becoming the rule rather than the exception”. According to Park et al. (2004) the integration of online and offline operations may create advantages in terms of reputation, wider distribution, better customer service and management skills. Table 2.1 compares market reach, cost per transaction, extent of product tailoring, extent of customer convenience and extent of security in the transactions of different channels in the retail banking system.
### Table 2.1: Comparison of Alternative Delivery Mechanisms - Retail Banking Industry

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Teller - Face to Face banking</th>
<th>ATMs</th>
<th>Telephone banking</th>
<th>Internet Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market reach</strong></td>
<td>Existence of geographic barriers</td>
<td>Existence of barriers for certain types of transactions (e.g. opening accounts etc.)</td>
<td>Existence of barriers for certain types of transactions (e.g. opening accounts etc.)</td>
<td>Potential for complete elimination of geographic barriers</td>
</tr>
<tr>
<td></td>
<td>Access limited to area(s) where a bank has branches</td>
<td>Access is increased from anywhere where there is an ATM</td>
<td>Access to one's account is increased from any area within the UK</td>
<td>Customers in any area can open an account and conduct transactions with retail banks and building societies located in anywhere.</td>
</tr>
<tr>
<td><strong>Efficiency-</strong></td>
<td><strong>Cost per transaction</strong></td>
<td>$1.07</td>
<td>$0.27</td>
<td>$0.54</td>
</tr>
<tr>
<td><strong>Extent of Product Tailoring</strong></td>
<td>Standard products with limited choices</td>
<td>Standard products with limited choices</td>
<td>Standard products with limited choices</td>
<td>So far, standard products with limited choices. Customers have access to unique products tailor made for their specific needs.</td>
</tr>
<tr>
<td><strong>Extent of Customer Convenience</strong></td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Customers have to go to the bank premises</td>
<td>Customers have to access the nearest ATM</td>
<td>Customers can access the bank from any telephone</td>
<td></td>
</tr>
<tr>
<td><strong>Extent of Security in the transaction</strong></td>
<td>High</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Adapted from Gopapakrishnan et al., 2003:418

For the purposes of this study, Internet banking is defined as online banking or e-banking (electronic banking) over the Internet. Furst et al. (2002:96) define an Internet bank as ‘a bank offering its customers the ability to transact business with the bank over the Internet’. The service is provided both by traditional banks with bricks-and-mortar branches and e-banks (or virtual or direct banks) that deliver their services primarily over the Internet (Orr, 2001).

Furst et al. (2002) define Internet banking as “the use of the Internet as a remote delivery channel for banking services, which include traditional services, such as opening a deposit account or transferring funds among different accounts,
and new banking services, such as electronic bill presentation and payment” (allowing customers to receive money and pay bills on a bank’s web site). There are many banking services offered through the Internet, including: current accounts, savings accounts, mortgage loans, and customer services related, e.g. reporting lost and stolen debit/credit cards, ordering cheques, etc. Customers can check balances, pay bills, and make transfers through their online current account. Regarding current accounts, there are several types of Internet banking services available to customers such as checking balance, transferring between accounts, paying bills, etc., through an Internet without leaving their homes or work (Mols, 1998; Daniel, 1999; Sathy, 1999). Internet only banks can also have some ‘bricks-and-mortar’ facilities, such as telephone and Internet instant call centres.

Furst et al. (2000, 2002) carried out a study of “who offers Internet banking” and concluded that retail banks delivering services over the Internet are more profitable than their competitors that do not. Retail banks and building societies can provide Internet banking services through establishing a Web site and offering Internet banking to customers either as an additional service delivery channel or by establishing a ‘branchless’, ‘virtual’ or ‘Internet-only’ bank as a different brand (e.g. Egg, Cahoot, IF and ING in the UK). These ‘Internet-only’ banks normally started off using especially aggressive price strategies and advertising to capture a large number of users quickly (Mora, 2004). However, to date, Internet only banks have two major disadvantages for their customers: depositing paper cheques and withdrawing cash. It seems that other than via the postal system, there is no effective way of making a deposit.
Forrester research (2003) claimed that there is a dramatic increase in numbers of Europeans banking online: there were 16 per cent of Europeans banked online in 2001 and the number increased to approximately over 60 million, i.e. 20 per cent in 2002 and further increase to an impressive 37 per cent in 2003. Forrester (2004) forecasted that there will be 130 million Europeans using online financial transactions by 2007. Datamonitor (2003) has more conservative figure and estimate that there will be 84 million European Internet banking customers by 2007. The UK and Germany are Europe’s biggest Internet banking markets (ibid). According to Jupiter Research, the number of Internet users was more than 35 in the UK and 60 million in Europe in 2004 (Jupiter MMXI, 2004). A new report commissioned by Alliance and Leicester forecasts 42 million Internet banking customers in the UK in 2020, four times more than the number in November 2004 (Market Watch, 2004). NetValue France (2003), who measures and rates Internet usage, estimated that between May 2001 and May 2002 the time spent on Internet banking transactions in France, UK, Spain and Germany increased by approximately 40 per cent and averaged to nearly 30 minutes per day.

Much of the existing research on Internet adoption/acceptance in retail banking has adopted a customer perspective. So for instance, internet banking has been studied with regard to user acceptance (Wang et al., 2003). The authors found that the Technology Acceptance Model (TAM) is supported by the customer’s use of the Internet. TAM is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new software package, a number of factors influence their decision about how and when they will use it, notably:
Perceived usefulness (PU) - This was defined by Davis (1989) as “the degree to which a person believes that using a particular system would enhance his or her job performance”.

Perceived ease-of-use (EOU) is defined as “the degree to which a person believes that using a particular system would be free from effort” (Davis, 1989).

Wang et al. (2003) found that the Technology Acceptance Model was strongly supported and the concept of “perceived credibility” could enhance the model. The “Perceived credibility” is considered to mediate the outcome of customers’ self-efficacy on the objective to use internet banking. The other two mediators to the concept of TAM are “usefulness” and “ease of use” (ibid.). Therefore, from users’ point of view, problems of security and the non-divulgence of their personal details are imperative.

In addition, Mols (1998) studied consumer segments in the Internet banking sector and their behavioral issues in online banking, for example, “satisfaction, word-of-mouth, repurchase intentions, price sensitivity, propensity to complain, and switching barriers”. Sathye (1999) investigated “the effect of security”, “ease of use”, “awareness”, “pricing”, and “resistance and infrastructure issues” on customers’ acceptance of online banking. Liao et al. (1999) studied the relationship between consumers’ adoption of Internet banking and innovation attributes of the Internet (for instance, voluntariness, ease of use, compatibility, relative advantage, image, and trialability). Black et al. (2001) explored consumer acceptance of financial services online, further, Polatoglu and Ekin (2001) looked into consumers’ adoption of online banking services in Turkey. Durkin (2004)
found that Internet banking registration is influenced by high levels of Internet access at work.

Chan and Lu (2004) looked into issues in Internet banking adoption and usage behavior from a Hong Kong Perspective. Kolodinsky et al. (2004) investigated factors that affect the adoption or intention to adopt Internet banking technologies by US consumers, while Patricio et al. (2003) looked into key factors influencing customer behavior online. Sarel and Marmorstein (2004) found that US banks have invested heavily in developing online capabilities, with the expectation of migrating customers to this new, cheaper delivery system. However they found that results in the USA so far have been mixed at best. They concluded that the marketing activities by the banks were inappropriate and insufficient to appeal to the indifferent consumer and that surprisingly banks were not improving their activities. Wu (2003) explored the relationship between consumer characteristics and attitude toward online shopping. Customer evaluations of online service quality have been extensively studied (e.g. Zeithaml et al., 2002; Broderick and Vachirapornpuk, 2002; Joseph and Stone, 2003; White and Nteli, 2004). Pikkarainen et al. (2004) conducted a survey among 248 customers in Finland and developed a model looking at Internet banking acceptance among retail banking customers. Lee et al. (2004) also carried out a survey in USA and developed a bivariate probit selection model of consumer access and adoption of Internet banking. Waite and Harrison (2004) looked at UK customers’ expectations and perceptions of online retail banking information.

Few research studies have been conducted to quantify Internet usage in retail banks. For instance, Akhavein et al. (2001) pointed out that few quantitative
studies have been undertaken on the diffusion of new financial technologies. While there are a number of exploratory studies beginning to emerge in relation to Internet financial services, these tend to be in-depth single organisation analyses. In one case study, Khiaonarong (2000), for example, examined electronic payment systems. The author discussed issues including the development of laws supporting electronic payment systems, risk reduction measures, and change-management issues. There are a few exceptions, for example, Daniel and Storey, 1997; Morrison and Roberts, 1998; Durkin and Howcroft, 2003. Daniel (1999) examined online banking issues, e.g., the culture of innovation, market share, organisational restrictions, and customer acceptance from the perspective of Internet/IT managers. The author also considered the main trends in non-electronic retail banking practices.

Daniel’s (1999) ‘Provision of Internet banking’ is arguably the only study that quantifies the provision of Internet service by major retail banks in the UK and the Republic of Ireland. Nonetheless, only the 25 largest retail banks and building societies were studied to analyse factors affecting the provision of Internet banking. Although the organisations under investigation represent approximately 75 per cent of UK and Irish retail banking assets, they are by no means representative of the whole UK and Irish Retail Banking sectors. The study failed to look at banks of different sizes and their likely varying usage of the Internet. Although five factors were identified affecting the usage of the Internet in these banks, the study failed to provide an insight into the correlation between these factors and the provision of the Internet usage. Moreover, the study may have neglected other possible variables affecting the provision of Internet banking beyond the five factors.
investigated in the study. Jayawardhena and Foley (2000) conducted a technical
evaluation of bank web sites in terms of speed, content, design, interactivity,
navigation and security features using 12 UK retail banks web sites. Similarly,
Southard and Siau (2004) reviewed the content and features of 10 US retail banks
web sites and classified the Web features into five areas: informational,
administrative, transactional, portal, and others.

Durkin and Howcroft (2003) merely collected 15 senior bankers' views on
the use of the Internet as a relationship marketing tool. Among the 15
interviewees, only 5 were from UK retail banks. No building societies have been
included in any of the above studies. This void in the literature remains, despite
being repeatedly noted by key writers in the area (e.g. Mols, 2001). Consequently, shedding light on Internet usage constitutes an extremely important
and timely research avenue.

Based on the literature reviewed, the following section introduces the
research framework designed to examine the relationship among Internet strategies,
firms' characteristics, and perceived competitive advantage through the Internet
delivery channel in the UK retail banking sector. Specific hypotheses are then
formulated to test the proposed research framework.
2.4 HYPOTHESES AND RESEARCH MODEL

2.4.1 Internet Strategy

Since the launch of the Internet in the retail banking sector, retail banks and building societies have employed different Internet strategies, for instance, in relation to their sophistication of Internet usage and timing of Internet entry.

Sophistication of Internet Usage

The majority of retail banks and building societies in the UK have an Internet service delivery channel, namely Internet banking or e-banking. According to White and Nteli (2004), “there are more than 60 banks and building societies in the UK now offering Internet banking”. However, the level of Internet usage varies among different banks.

The Federal Deposit Insurance Corporation (FDIC) manual of examination policies for Internet banking separates Internet capabilities into three levels (registration, informational and interactive) by degree of functionality:

- Level 1: systems that only provide information as defined by the publisher or allow for transmission of non-sensitive electronic mail or other publicly available information.
- Level 2: systems that allow users to share sensitive information and communicate electronic information transfer systems.
- Level 3: systems that are most advanced and can facilitate electronic funds transfer and other financial transactions.
Level 1 involves one-way communication (from the site to customers) or two-way communication (some degree of interaction e.g. e-mails). During this stage, the overall purpose of the Internet is a marketing one, namely to enhance the image and supply product information. So far the bank has not yet set any formal structure for the Internet unit and Internet-related activities are enjoying little visibility in the firm, mainly driven by managers' (and/or shareholders') interests. Level 1 is not very innovative, since the Internet is used just as information channel.

In level 2, customers would require more information, more interaction and share their own information with the bank through the Internet. For instance, customers would be able to register their details with the bank and make basic enquiries or even open an account. At this stage, the Internet is used as a cost-effective supplementary channel to retail banks' branches.

Level 3 is the most sophisticated and advanced Internet banking stage to date. The Internet delivery channel begins to gain the status of a stand-alone unit, conducting its own activities and pursuing its own objectives. Retail banks continually expand the range of services and products offered and pay increasing attention to customer demands to improve or develop new services and products. Customers would be able to transact online (e.g. checking their balance, making money transfers, paying bills).

Diniz (1998) uses a model with three levels for Internet usage. At the first level, 'basic or incremental', a retail bank can only reproduce the way it works with media other than the Internet. It opens a new arena without exploring the potential
of the new vehicle yet. At the second level, the ‘intermediary’, some specific features of the Internet are used to improve services and activities done by retail banks. But the use of this resource does not fundamentally change or impact the way retail banks run their business. On the contrary, at the third level, advanced, the retail bank opens up possibilities for business transformation and the creation of new business opportunities. Diniz’s definition is somewhat in line with that produced by the FDIC.

Parson et al. (1996) quoted in Yakhlef (2001), identify four stages of Internet usage: “1. Information presentation, 2. Communication and simple transaction stage, 3. Internet unit develops its own structure and marketing-related products, and 4. Technology related activities are separated—core business redefinition and transformation”.

Knight et al. (1999) recognise four separate levels of information provision: “1) At the most basic level, an Internet presence merely provides information about the financial institution, with no interaction between the institution and customer other than a possible e-mail hyperlink. 2) The next level allows the institution to receive information, such as a saving account application. 3) The third level offers the customer the opportunity to share information, e.g. account balances or transaction details. 4) The highest level identified allows the customer to process information”.

Jayawardhena and Foley (2000) categorise the Internet usage level into four functions: namely: “view-only function, action/account control functions, applying for new accounts, and integration and reconciliation”.

73
The FDIC's three level Internet usage definition will be used in this study because it is widely accepted and easy to understand.

Joseph and Stone (2003: 190) claim that, "by making improvements in the level of service, individual firms provide their customers (with benefits), which include increased capital expenditure on service delivery technology". The cost of online applications increases with their complexity and the sophistication of the web site. On the other hand, the increased sophistication of online applications permits better targeting and servicing of customers, which in turn increases the competitive capabilities of the bank (Furst et al., 2002).

**Timing of Internet Entry**

In the service sector, strategic mimicking of services seems easy and fast (Pennings and Harianto, 1992).

"First-mover advantages can be powerful and long-lasting in lock-in markets, especially those in information industries where scale economies are substantial. If you can establish an installed base before the competition arrives on the scene, you may make it difficult for later entrants to achieve the scale economies necessary to compete" (Shapiro and Varian, 1998:168).

Dos Santos and Pfeffers (1995) argued that on occasion firms can achieve higher returns or a superior reputation in the market place by seizing lucrative opportunities early. Lieberman and Montgomery (1988) listed three main reasons that firms gain 'first mover' advantages: "1) customers are loyal to the brand that they initially use, and therefore, are reluctant to switch to a new brand; 2) firms
enjoy early access to limited specialised assets; and 3) firms have access to patents and technology that are not accessible to other players” (Gopalakrishnan et al., 2003).

As the Internet is becoming a more important marketing channel, it is likely that those companies which entered the Internet market at a relatively early stage will capture the customer interface, build customer relationships and brand awareness among online users (Hagel et al., 1997; Mols, 2000; Porter, 2001). While the Internet first-mover banks may have achieved a degree of competitive advantage, as more retail banks and building societies begin offering similar services, the advantage is not sustainable (Moskow, 2001). Some research indicates that there may be some advantages associated with later entry, for example the ability to learn from the mistakes of the early movers and therefore lower entry costs (Porter, 1985).

In a study of 80 Internet businesses conducted by McKinsey, only 10 per cent of the entrants into a new market gained an advantage through speed. According to Bates et al. (2001), speed makes sense when the following three conditions exist:

1) Companies first to market can create significant barriers to entry

2) There is a great market potential

3) The hazards and risks related to speed are controllable.

However, the ‘first mover’ dilemma may represent a development risk (Pennings and Harianto, 1992). Research and development expenditures and
capital intensity in the retail banking sector are comparatively minor for bigger banks, therefore the risk is smaller than their smaller competitors.

Pennings and Harianto (1992) claimed that it may be “dangerous” to enter too late into new activities, however if the firm enters too early, the innovation may be unsuccessful as the design is insufficiently developed. In the online banking context, the problems of early adoption may be reinforced by the fact that after the most enthusiastic customers have gone online, the banks have to turn to more hesitant customers that probably are highly sensitive to user friendly interfaces. The versatile nature of Internet innovation in retail banking is often determined to a varying level by the producer/user interaction (Windrum and Birchenhall, 2002). Bates et al. (2001) proposed, “For the rest, speed provides no competitive advantage and often results in wasted resources, missed opportunities, and flawed strategies”.

2.4.2 Characteristics of Retail Banks

This section looks at the characteristics of retail banks, which include size and type of bank.

Size of Bank

In the retail banking sector, the banks were separated into large or small banks as recommended by the Holland and Westwood (2001) study and by researchers like, Dewan and Seidmann (2001), and Southard and Siau (2004).

In the UK, retail banking is dominated by five large banks, four of which are British in origin - Barclays Bank, Royal Bank of Scotland, Lloyds TSB, HBoS - and the fifth, HSBC is an international bank which took over the Midland Bank.
Retail banking in the UK has been subject to a number of mergers and acquisition creating very large organisations that are global players.

The size of the bank is a fundamental factor that has been demonstrated as an influence on the bank’s Internet strategy. In this study, Internet strategy, e.g. timing of entry and level of Internet usage, is expected to be associated with firms’ size. However, firm size may also capture other factors not explicitly considered in the model. Firm size has been included in several studies on innovation, but the empirical findings on the size-innovation relationship have been incongruent (Damanpour, 1996).

It appears that a large majority of UK retail banks have at least an informational web site (level 1) and many now offer transactional Internet sites with virtually all the largest banks offering them (Berger, 2003; DeYoung et al., 2003).

A number of researchers claim that there is a positive relationship between firm size and the ability to innovate, because larger organisations have more financial resources, more marketing skills, and more technological knowledge (e.g. Chandy and Tellis, 1998; Damanpour, 1992; Dewar and Dutton, 1986; Pavitt, 1990; Arnott and Bridgewater, 2002; DeYoung et al., 2003). Large organisations have more slack resources for new projects and diversification. They also have more opportunities for promotion and growth among their employees, and more control over the external environment (Damanpour, 1996). They are thus better able to tolerate potential losses caused by unsuccessful innovations.
Banks also use their strong brand names, large customer bases, and high market shares in certain financial products to maintain existing customers and obtain new ones (Hagel et al., 1997). Conversely, small businesses generally suffer from server constraints on financial resources and a lack of internal information technology expertise (Welsh and White, 1981). Poon and Swatman (1999) state, "how far into the future small business will fully embrace Internet commerce is uncertain". Small businesses often lack the financial resources to incrementally explore the Internet world without a clear understanding of the benefits or barriers to such a strategy.

Others argue that small organisations are more flexible and better able to execute innovation due to their better cross-functional collaboration (e.g. Mintzberg, 1979 quoted in Damanpour, 1996; Ramsaran, 2004). The Internet has enabled rising numbers of smaller banks to provide banking services through this new delivery channel. Although conventional wisdom would suggest that smaller banks are at a disadvantage in the financial services arena, this has generally not been the case regarding the Internet (Moskow, 2001). Smaller banks often understand the needs of their customers better and respond quickly with a customised service (ibid.). Whereas big banks are more bureaucratic and less flexible, are unable to change and adapt rapidly, and be inclined to have impersonal work environments (Hitt et al., 2001). Nevertheless, larger banks can utilise their brand identity and greater financial budget for technology and marketing.

Managers in smaller retail banks may be more ambitious with reference to the implementation of interactive Web sites, moving into the more sophisticated Internet technology may be so challenging that only the large banks possess
adequate all-round expertise to do so. McKinsey’s study (Bughin, 2001) made the claim that smaller banks switch existing customers and acquire new ones more actively. However the influence effect of size is especially strong in winning new customers. Smaller banks do twice as well as their larger counterparts among people who switch banks; this appears to offer newcomers more expectation of quickly rising their share of customers in a business with conventionally low churn off-line.

Ramsaran (2004) claimed, “…With smaller banks, there is a lot of technology innovation happening. These banks have a large advantage because everything they do is a lot smaller.” As a major return on investment might not result from the investment, bigger banks sometimes delay adopting innovative technologies or new platforms. “For large banks, it is just not economically feasible to be a rapid adopter of anything. They need to see that the scale is industrialised and repeatable” (ibid.). In the case of smaller banks, it may be easier to implement new systems. Smaller banks can also take on strategies like outsourcing Internet technology (IT) functions and forming alliances with technology providers and competitors to counterbalance their size disadvantage (Wright, 2001). However, according to Futurebanker magazine, 39 per cent of small banks saw no advantage to Internet banking and they are likely to use their branches more.

Clearly, there is no consensus among researchers on the size-innovation relationship. Each group of researchers can refer to empirical findings, which support their argument.
In the Internet banking area, if the following basic premises are accepted (while taking into account the aforementioned lack of consensus in the literature):

- larger banks are more likely to have greater technical resource and financial resource to support a web site (Kowtha and Choon, 2001 as quoted in Hausdorf and Duncan, 2004). Therefore, bigger banks do better than smaller competitors in the information delivery field at higher levels of interactivity (Diniz, 1998).

- there are high startup costs for Internet banking – essentially technology investment and the heavy marketing needed to acquire new accounts” (Orr, 2001: 41).

- high risk financial investments are less likely to be contemplated by smaller companies (Arnott and Bridgewater, 2002), consequently the perceived risk of developing Internet solutions is greater for smaller banks.

- larger banks are more geographically diversified and have more ‘physical evidence’ to better utilise an Internet strategy.

It follows then that arguably larger banks are liable to be more sophisticated in their use of the Internet and are more likely to enter the Internet market early.

Hence, it is hypothesised that:

There is a positive relationship between the size of the bank and the level of Internet usage, i.e.

*Hypothesis 1a: Bigger banks tend to have a higher level of Internet usage.*
There is a positive relationship between the size of the bank and the timing of Internet entry, i.e.

*Hypothesis 2a: Bigger banks tend to enter the Internet arena earlier.*

**Type of Bank**

Retail banking is defined as “the provision of services to individual customers rather than businesses or large organisations” (Longman Business English Dictionary).

Prior to 1986, there was a very clear distinction between retail banks and building societies in the UK. Building societies, different to retail banks, did not offer cheque accounts and only lent long-term finance for private individuals’ house purchases and were mutual organisations, i.e. they were owned by their depositors, not by shareholders. UK building societies were restricted, in the main, to raising funds from retail deposits and intermediating these funds into mortgage lending. However, the 1986 Building Society Act greatly improved the range of activities in which building societies could engage. The subsequent 1997 legislation removed most of the remaining restrictions and building societies can now effectively be viewed as mutual retail banks or mutual retail financial services organisations (www-bsa.org.uk).

Today, most of major building societies offer a wide range of services, similar to those offered by retail banks. Many (e.g. Halifax and the Abbey National) have de-mutualised to become public limited companies listed on the London Stock Exchange and have, as a result, turned into retail banks. On the
other hand, retail banks have now aggressively entered the market to offer mortgages for house purchase. Consequently, the role of building societies is extremely similar to that of retail banks in the UK.

However, in order to examine if there is any difference between the traditional retail banks and building societies, we refer to retail banks as high street “bricks and Mortar” banks in this thesis.

**High Street Retail Banks (“Bricks and Mortar”)**

Retail banks are the banks whose branches are normally seen on the high street. Their services are offered to the region they cover and in formal terms can be described as involving the transfer, borrowing and lending money to private customers, sole traders and partnerships. Retail banks are financial service providers, which are generally listed on the stock market and owned by and run for their shareholders.

The major traditional retail banks have a substantial cost base, a significant element of which is their branch network. As this branch network is difficult to move or reconfigure, they are referred to as “bricks and mortar”. As multi-channel banking technology matures, retail banks are becoming increasingly keen to employ different service delivery channels to satisfy customers’ demands and achieve competitive advantage. Due to the fast innovation of technology, today, all major UK retail banks are employing other delivery channels in addition to their branches. The alternative channels include: ATM, PC banking, telephone banking, Internet banking, mobile phone banking, and TV and other multimedia-based
banking. Therefore, instead of being “bricks and mortar”, most UK high street retail banks are “brick and clicks” (Porter, 2001). “Brick and clicks” banks refer to retail banks that employ the Internet as an alternative service delivery channel.

Daniel and Storey (1997) found a plethora of reasons why UK banks have opted for the Internet to: “protect or enhance the organisation’s reputation for innovation, provide added value to customers, attract new customers, meet demand from current customers, imitate competitors launching services online, and develop mass customised services, etc”. Nehmzow (1999) claimed that Internet banking provides traditional players in the retail banking sector the opportunity to add a low cost distribution channel for their numerous different services.

Some researchers suggested that the Internet should simply be regarded as a new channel complementing bricks and mortar branches (Moutinho et al., 1997; Yakhlef, 2001). Evidence about “bricks-and-mortar” based firms who have successfully combined online technology with their existing branch networks and have achieved competitive advantage were extensively studied by researchers (Gulati and Garino, 2000; Vishwanath and Mulvin, 2001; Porter, 2001: 73). Bricks and click banks enjoy an advantage over Internet-only banks in advertising and promotion strategy and brand recognition.

Both traditional and electronic channels coexist to offer a full range of financial services to both existing customers and potential customers. Some 70 per cent of retail bank customers use multiple access points, and seem not entirely reliant on one channel or another (Elkins, 2003). Customers use the channel that is most suitable for them: convenient in terms of their own time, location, and type of
transaction they are undertaking, and their relative confidence about the new communication alternatives.

So far bricks and mortar branch networks are necessary and will not disappear; however, margins are likely to be lower than for an Internet network. “The very physical presence of a local branch, however, is an advantage that the Internet cannot replicate or undercut. Banks have the opportunity to leverage their strong position within local communities...” (www.bankingmm.com). However, consumers do not like the idea of accepting the higher costs associated with this channel and push for rates comparable to new competitors. Branch networks may have to lose branches, particularly the ones with costly high street locations or with low footfall.

Internet-Only Banks

Retail banks and building societies can proffer Internet banking services by establishing a Web site and offering Internet banking to their customers as an additional delivery channel or by establishing a ‘virtual’, ‘branchless’, or ‘Internet-only’ bank as a different brand (e.g. Egg, Cahoot, Smile, Intelligent Finance and ING).

The barriers to entry in Internet banking are significantly lower than high street retail banks. According to Booz, Allen and Hamilton (Pyun et al., 2002), the cost for setting up a traditional “brick and mortar” retail bank is between $25 and $30 million whilst the cost to establish an Internet only bank is just $6 million.

The Internet-only banks are new ventures that use the Internet exclusively for new market entry. They started by using very aggressive pricing strategies and
advertising to rapidly capture a large number of users (Mora, 2004). However, to date, Internet banks have two major built-in disadvantages for their customers: cash withdrawal and deposits of paper checks.

A few years ago, Internet banks were hailed as a brave new breed that could transcend geography, operate without the costly baggage of bricks and mortar, tellers, layers of vice-presidents, and obsolete legacy systems and lead customers into a new world of paperless anytime, anywhere, self-service banking. As Nehmzow (1999) claimed, Internet banking also creates a threat to banks’ market share, because it neutralises so many competitive advantages of having a traditional bank branch network. Although some early indications are that the performances of Internet-only banks are not as positive as predicted (e.g. Orr, 2001), Internet only banks are reported to have positive performance. For instance, Egg UK is reported to have delivered a nine month operating profit of £41 million to the end of September 2005 (Bank annual report year 2005, www.egg.com). Similarly, Smile, from co-operative bank Internet operation, which offers a comprehensive range of personal banking products has grown steadily since its launch and average deposits increased a further eight per cent in 2005 (Bank annual report year 2005, www.co-operativebank.co.uk).

Internet-only banks are becoming more competitive with each other in an attempt to deliver added value to their online customers. Internet banking has promoted the advantage of online transactions over the traditional form of transaction. ‘Clicks over Bricks’ (‘Traditional vs. virtual service’, Sievewright, M. 2002) has been coined as the phrase to advocate the advantages, whilst high street retail banks emphasise the advantages of integrating both types of banking.
Some studies maintained that Internet ‘pure play’ retailers do not achieve competitive advantage over their ‘bricks and mortar’ counterparts (Ring and Tigert, 2001; Vishwanath and Mulvin, 2001). In the retail banking sector, consumers may be willing to pay a price premium for branch-based, person-to-person contact, which may signal reliability of service delivery, security of information, dependability of policies, etc. (Smith et al., 1999). De Young (2001) conducted a research for the Federal Reserve Bank of Chicago, which focused on the performance of ‘pure play’ Internet-only banks. High labour costs and difficulties generating revenues counterbalance the savings on physical infrastructure and core customers were difficult to sustain for those banks. He concluded that Internet-only banks are less profitable than their counterparts at the same stage of Internet development and hence the Internet only bank is not a financially practical business model.

**Building Societies**

Since the eighteenth century, building societies have been mainly providing funds for house buyers and attractive interest rates for investors (Ashworth, 1980). There were over 2,000 building societies at the beginning of this century, but the number had fallen to just over 100 by 1996 (Dawes and Worthington, 1996). Following the deregulatory effect of the 1986 Act, levels of competition within the building society movement itself increased significantly with several societies merging (Edgett and Thwaites, 1990). As at 2006, there are only 63 members of the Building Society Association (www.bsa.org.uk).

In the early 1980s, retail banks began to offer building societies’ core products, (e.g. mortgages, investment opportunities and cheque accounts) which
attracted interest among their personal financial services customers. The government subsequently enacted the Building Societies Act in 1986, which enabled building societies to offer an increased range of products from the management of unit trusts, to the provision of estate agency services. This broke down the traditional distinction between banks and building societies. As a result, many building societies moved into retail banking, having previously concentrated exclusively on home loans/mortgages and savings products. Abbey National led the way in 1989, rapidly followed by others. Halifax has also ended its mutual status and become a public company; Halifax then merged with the Bank of Scotland to form HBoS. The result of this de-regulation is increased competition in the retail banking sector. The assets of the larger building societies (who had themselves grown though a series of acquisitions) now rivaled those of the established retail banks. 1986 also saw the advent of the Financial Services Act designed to introduce consumer protection legislation into what was now an increasingly competitive financial services sector. However, one major building society remains, Nationwide, which has a plethora of products including traditional major retail bank products like, US Dollar accounts.

This highly competitive situation has been further heightened by the growing difficulty in differentiating product offerings and customer services between retail banks and building societies (McGoldrick and Greenland, 1992). Some building societies have diversified to offer a range of personal financial services including current accounts, loans, credit cards, insurance and estate agency services. Building society outlet branches are based on high streets, similar to retail banks. However, they are still mutual institutions with no external
shareholders. Most of their customers, who have a saving account or mortgage, also have certain ownership like rights and, for example, are able to attend and speak at AGMs.

However, the 63 mutual building societies are different from retail banks, which are companies (normally listed on the stock market) and are therefore owned by their shareholders, and run for them. Societies have no external shareholders requiring dividends like retail banks, which should enable them to save costs and offer cheaper mortgages and better rates of interest on savings than their retail bank competitors (bsa.org.uk). This leads to lower risk or lower cost of capital (Cook et al., 2001 and 2003).

According to Thwaites and Lynch (1992), building societies adopted a more marketing-led approach than other players in the personal financial service sector in order to remain competitive. Today, the building societies are perceived as ‘old fashioned’ and adopt cost-led strategies (McKillop and Ferguson, 1993), and therefore they make comparatively little investment in technology (He and Balmer, 2004).

Other Financial Services Providers

There are many other forms of financial services provider that offer products to retail customers. Until 1990, retail banking services were also offered by the Post Office through the state-owned Girobank. This was originally set up as a part of the European network of ‘people’s banks’ in 1968, and was sold to Alliance and Leicester and ceased to operate as a separate bank. The Post Office itself has developed a very limited function account known as the Post Office card.
account, which is a card based account into which state benefits and pensions can be paid.

New entrants have also appeared from completely different market sectors. Marks and Spencer, Sainsbury and Tesco have all moved into financial services provision by means of a variety of market entry strategies. Tesco and Sainsbury now hold banking licenses having entered the market initially with banking partners, Royal Bank of Scotland and Bank of Scotland respectively (Harrison, 1999).

To date, there are more than 60 retail banks and building societies in the UK who offer Internet banking, most trying to thereby downsize their branch networks. However, bricks and mortar remains the most popular channel among customers and dominates the current account market in the UK (White and Nteli, 2004).

The retail banks are large nationwide financial providers with extensive product offerings as a result of product proliferation. This proliferation stretches the managerial and financial resources available to product managers. Although this might also be the case for the larger building societies and insurance organisations, the situation may be different for medium- to small-sized players, which have less product managerial resources and more limited product ranges. No differences were identified in the usage of planned success measures, due to the similarity in products between these two sectors.

Furst et al. (2000)'s study of US retail banks in the 10th Federal Reserve District revealed that different types of banks have adopted Internet banking at different rates. The adoption rate is high (75.9 per cent) for large regional banks
(similar to UK retail banks) but it is considerably lower for other types of banks (e.g. 4.2 per cent for community banks, which are similar to their nearest UK equivalent; building societies).

In the UK, there are a relatively small numbers of Internet-only banks offering their services exclusively on the Internet. In general, Internet banking has become widespread in its “click and mortar” form.

Based on the assumption that building societies make more cautious investments in information technology (McKillop and Ferguson, 1993; He and Balmer, 2004), it is hypothesised that there is a positive relationship between the type of the bank and the level of Internet usage, i.e.

Hypothesis 1b: Retail banks tend to have a higher level of Internet usage than building societies.

There is a negative relationship between the type of the bank and the timing of Internet entry, i.e.

Hypothesis 2b: Retail banks tend to enter the Internet arena earlier than building societies.

2.4.3 Internet and Competitive Advantage in Retail Banking Sector

The Internet has had a significant impact on the retail banking sector, enabling retail banks to achieve competitive advantage (Daniel, 1999). Researchers claimed that the Internet has provided retail banks with competitive advantage through various routes, including cost reduction (Peppard, 2000; Mols, 2000; De Young, 2001), brand image enhancement (Daniel and Storey, 1997),
service quality improvement (Devlin, 1995; Jun and Cai, 2001; Joseph and Stone, 2003), and cross-selling of products (DeYoung, 2001).

Cost Leadership

It is widely accepted that one of the largest expenses incurred by financial services providers is related to their branch network and the associated staff and overhead costs. Karayanni and Baltas (2003:106) claimed that it is now technically feasible to offer interactive functions to customers who might otherwise require the assistance of a member of staff.

In the retail banking sector, the cost of the average payment transaction on the Internet is minimal (Esser, 1999; Furash, 1999; Peppard, 2000; Mols, 2000; De Young, 2001). Several studies found the transaction cost through a PC bank using the banks’ own software is £0.20, a telephone bank is £0.30, a bank branch £1.20, an ATM £0.40, and on the Internet it costs merely £0.01 (See Table 2.2, Source: e.g. Datamonitor, 1999; ECB, 1999).

<table>
<thead>
<tr>
<th>Channel</th>
<th>Cost per transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Service Branch</td>
<td>£0.675</td>
</tr>
<tr>
<td>Telephone</td>
<td>£0.37 (human) £0.1375 (automated)</td>
</tr>
<tr>
<td>ATM Full Service</td>
<td>£0.1375</td>
</tr>
<tr>
<td>PC Banking</td>
<td>£0.0125</td>
</tr>
<tr>
<td>Internet WWW</td>
<td>£0.0075</td>
</tr>
</tbody>
</table>

Source: Saloman Smith Barney Report as referenced in The Guardian 12th October 1999
The cost savings apparently come about through the combined effects of the reduction and better utilisation of the workforce, equipment, more economic usage of space and operational savings (Jayawardhena and Foley, 2000).

Table 2.3: Economic Advantages of Internet Banking

<table>
<thead>
<tr>
<th>Type of Financial Institution</th>
<th>Average expense to revenue ration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bricks and mortar</td>
<td>60%</td>
</tr>
<tr>
<td>Internet</td>
<td>35% to 40%</td>
</tr>
<tr>
<td>High volume Internet</td>
<td>15%-20%</td>
</tr>
</tbody>
</table>

Source: Banking & Capital Markets Group, N. Y., 2000

With lower operational costs, Internet banks could pass savings on as a lure for new customers (ING is a good example of this). Low prices attract customers and make them purchase products (Jarvenpaa et al., 2000). Internet banks build or buy next-generation technology and avoid legacy problems and, in general, they offer three times the national average interest rate on depository accounts (Orr, 2001). Other attractive products and/or services of Internet banking include: low-cost checking, credit cards with a high limit, mortgage and investment advice (Furash, 1999). Much like aggregators of the past, retail banks need this scale to offset their fixed marketing and logistics costs for the Internet delivery channel. The only way to achieve the above mentioned ‘ideal’ low Internet operation cost is through volume selling and high market share. Egg and ING, for example, started off using very aggressive price strategies and advertising to quickly capture a large number of users (Mora, 2004).

However, as one looks at the (mid-2004) status of Internet banking little of these prophecies appears to have come true. Achieving banking transaction cost
reduction proved to be difficult, both for traditional retail banks and for new players. Contrary to somewhat naïve expectations, development of a robust, secure and cost efficient Internet banking platform has proved not to be an easy task. Even where substantial operating costs savings were obtained, e-banking challengers had to use these savings in marketing expenditure and other customer acquisition costs to develop their platform. The Internet cost equation is considerably more complex than initially contemplated. At the turn of the decade, as much as 30 percent of Internet banks reported that their website and related Internet operations are unprofitable (Rackley, 2000).

In the study of “Challenges for Virtual Banking”, Virginia Philipp, who headed a Tower Group remarked:

“...there were the high startup costs--mainly the heavy marketing needed to acquire new accounts. New technology, though most of it outsourced, cost more millions. In addition, operating on the leading edge required high-salaried managers and marketers” (Orr, 2001: 41).

Philipp also commented that to succeed, Internet banks must stay away from mass marketing with its massive costs (ibid.). Blackburn and Athayde (2000) also found that designing, updating and maintaining Web sites proved difficult for small firms.

Because of economies of scale, it can be argued that bigger banks are likely to utilise the Internet more efficiently and serve more customers. The initial costs to set up and maintain an Internet banking service are likely to be relatively higher for small banks. There is also a large cost disparity between the Internet only banks
and the big players. Egg, for instance, was able to launch six new banking products in under a year for a total cost of just £30 million (Sabbagh, 1999). This compares with HSBC which spent £150 million on their web site alone.

From the retail banking industry's perspective, the major advantage of transferring customers from the traditional face-to-face banking system to Internet banking, either partially or fully, is that the cost of operating a physical branch can be reduced (Devlin and Yeung, 2003). The majority of big players have already responded to the cost reduction advantage provided by the Internet and seized the opportunity to cut the high costs associated with running branch outlets. In 2003, the number of bank branches in the UK stood at 11,565 compared to 12,573 in 1999, representing an 8 per cent of reduction at a time of relatively fast economic and banking asset growth. For example, according to figures from the British Bankers Association (www.bba.org.uk, 2004) Lloyds TSB, HSBC and Barclays closed 172, 81 and 59 branches respectively from 2000 to 2003. Retail banks and building societies share the same perspective in this area but in general building societies are smaller and offer less deep Internet banking services.

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the bank and managers' perception of the cost reduction provided through the Internet, i.e.
Hypothesis 3a: Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from smaller banks.

There is a positive relationship between the type of the bank and managers’ perception of cost reduction through the Internet, i.e.

Hypothesis 3b: Managers from retail banks tend to consider that the Internet has provided greater competitive advantage by greater cost reduction than managers from building societies.

There is a positive relationship between the level of Internet usage and managers’ perception of cost reduction through the Internet, i.e.

Hypothesis 3c: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from building societies.

There is a negative relationship between the timing of Internet entry and managers’ perception of cost reduction through the Internet, i.e.

Hypothesis 3d: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by greater cost reduction.

Brand Image

Branding has been one of the hottest topics, both in the literature and in the business over the last few years. Extensive research has been conducted in marketing and consumer psychology (Day, 1969; Sheth, 1967). Early work
included a series of articles by Brown (1952); using a sequence of purchases measurement approach. Using this approach he classified brand loyalty into four categories—undivided, divided, unstable and no loyalty.

High quality brand images have become increasingly essential to the longevity and popularity of products in today’s marketplace (Francoeur, 2004). As Internet usage grows rapidly, brands are becoming even more important than they have been in other channels or environments (Bergstrom, 2000). Positive brand images persuade customers to engage in desired economic action—to buy a specific brand or product (Francoeur, 2004). Another key issue is the interdependence between brand and corporate image: “Brands are an important device for legitimating the company toward its stakeholders” (Haedrich, 1993).

Although there are differing interpretations of “brand”, it is not the definition, which distinguishes product branding from services branding, but the executional strategy (de Chernatony et al., 1999). The interpretation of brands as a promise has been adopted by several writers (e.g. Ward et al., 1999; Ambler and Styles, 1996) and is particularly appropriate for services because of their characteristics of intangibility and heterogeneity. Ambler and Styles (1996:10) define a brand as:

“...the promise of the bundle of attributes that someone buys ... the attributes that make up a brand may be real or illusory, rational or emotional, tangible or invisible”.

A popular perspective suggests that brand equity is a source of added value and sustainable competitive advantage for firms (Bharadwaj et al., 1993).
The Internet has become an increasingly important part of the branding and communication strategies (Riley and Lacoix, 2003). "What people think of your company as a whole, and of your products and services by extension, will depend more and more on how they are treated online", predicted Sterne (2001).

Since the Internet is a new medium for service delivery, consumers remain wary of potential dangers and frauds from banking on the Internet. Further, because there is no physical local presence for the bank, customers are more likely to be hesitant to trust an unknown Internet site. To combat these fears and build traffic, retail banks and building societies invest heavily in marketing campaigns for their Internet banking offering. Beyond building brand awareness, extensive advertising also builds commitment costs. Consumers can be reassured about the credibility of a bank that invests so much into building a brand image. Branding for pure play banks (Internet only) is often more different than that for traditional retail banks.

A number of papers have confronted the issue of brand management on the Internet. Peterson et al. (1997) were one of the first to recognise that the marketing implications of the Internet could not and should not be considered in isolation from the rest of a business. In Integrated Marketing Communications (IMC) theory, integration implies speaking with one voice in all potential customer contact channels (Shimp, 1997). In relation to the Internet, integration implies that companies should not develop a specific ecommerce strategy, but use the Internet as an integral part of their marketing strategy, covering multiple communication and transaction channels. Since the end of the Internet bubble, there has been
widespread support for this integration philosophy (e.g., Zettelmeyer, 2000; Vriens and Grigsby, 2001; Porter, 2001; Sheehan and Doherty, 2001).

Clauser (2001) suggests that the underlying rules of branding and the essence of "the brand" itself are the same off and online. Nevertheless, new technology may require adjustment at the implementation level, for instance, in the way information is presented through the Internet (de Chernatony, 2001). Moreover, the degree of control exerted over the brand may need relaxing so that for instance, un-moderated chat forums and communities are built within the brand's web site. Other authors disagree with this; they go further arguing that a new mindset is needed to execute an on-line branding strategy, which thinks more about enhancing benefits to consumers rather than just to the organisation (de Chernatony, 2001). Because of the greater involvement of a brand's community on the Internet than off-line, a looser form of control is required. This requires that more emphasis be placed on brand management as values management. This is not so much a new theory of the concept of the brand for the on-line environment, but rather a different approach to executing the brand's essence (de Chernatony, 2001).

Some authors have even gone as far as producing a new term, e-loyalty to define Internet brand loyalty (Gommans et al., 2001). The concept of e-loyalty tries to fully extend the traditional brand loyalty concept to online consumer behavior (Gommans et al., 2001). It has been defined as the tendency for repeated consumption arising from a sincere liking of an online brand in the light of the presence of conveniently available alternatives and competitive attempts to induce switching behavior (Gwee and Hui, 2004). It can be thought of as similar to the concept of consumer or brand insistence (Copeland, 1923).
They also consider the underlying theoretical foundations of traditional brand loyalty and the newly defined phenomena of e-loyalty are similar, but again consider that there are differences in the area of Internet based marketing and buyer behavior. Another author described customer/brand loyalty in cyberspace as an evolution from the traditional product driven, marketer controlled concept towards a distribution driven, consumer controlled, and technology-facilitated concept (Schultz, 2000). In addition, e-loyalty also has several parallels to the "store loyalty" concept (Corstjens and Lal, 2000) used such as building repeat store visiting behavior as well as the purchase of established brand name items in the store. Schefter and Reichheld (2000), defined e-loyalty is all about quality customer support, on-time delivery, compelling product presentations, convenient and reasonably priced shipping and handling, and clear and trustworthy privacy policies.

In e-marketplaces, database technology makes it possible to put more emphasis on the cognitive dimension by offering customised information. As for strengthening the affective dimension, in e-loyalty the roles of trust, privacy, and security come into sharper focus (Gommans et al., 2001). Generally speaking, loyalty implies satisfaction, but satisfaction does not necessarily lead to loyalty. Consequently, there is an asymmetric relationship between loyalty and satisfaction (Waddell, 1995; Oliver, 1999). In contrast with the offline world, this phenomenon is particularly important in e-marketplaces, since dissatisfied customers face a greater variety of choices (Gommans et al., 2001). Extensive research has validated that highly loyal buyers tend to stay loyal if their attitude towards a brand is positive (Baldinger and Rubinson, 1996). In addition, the ability to convert a
switching buyer into a loyal buyer is much higher if the buyer has a favorable attitude toward the brand (Gommans et al., 2001).

Bank reputation and brand image are considered to be among the key critical success factors in the retail banking industry (Canals, 1994). The Internet has become a major challenge for retail banking, in which customer perception has become crucial for success in the business. Indeed, a strong corporate image is one of the most effective means for differentiation in retail banking (Richardson and Robinson, 1986; Flavian, et al., 2004).

One of the reasons why UK banks have opted for the Internet is to protect or enhance the organisation's reputation for innovation (Daniel and Storey, 1997). Parasuraman et al. (1988) argued that once an organisation establishes a favourable brand image its main task is to ensure consistency. Online brand image is also closely aligned to notions of credibility and stability, signalling to the outside world that an organisation is safe, trustworthy, predictable, socially acceptable, desirable and ethical (Hensmans et al., 2001).

Nevertheless, of all transactional facilities, physical evidence will remain the most valuable brand enhancer. Physical locations are able to create a broad experience that stimulates all of the customers' senses. They also have the greatest capacity to capture customers' attention, time, and money. There can be no doubt that physical contact and interaction is a key driver in the development of strong personal relationships.

The size of a bank and its branches can become physical manifestations of a bank’s brand. They can also make a bank more relevant to its customers, enabling
targeting not only by demographic segment but also by location. 'Localness' is a
driver of value overlooked by companies that focus on the global reach of the
Internet. Bricks and mortar banks have the opportunity to develop strong customer
relationships and distinct identities in a multitude of ways closed to their new on-
line competitors.

This highly competitive situation has been further exacerbated by the
growing difficulty experienced by customers in differentiating between retail banks
and building societies in terms of product offerings and customer service levels

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be
hypothesised that:

There is a positive relationship between the size of the firm and managers’
perception of brand image improvement through the Internet.

*Hypothesis 4a: Managers from bigger banks tend to consider that the Internet
has provided more competitive advantage by improving brand image.*

There is a positive relationship between the type of the firm and managers’
perception of brand image improvement through the Internet.

*Hypothesis 4b: Managers from retail banks tend to consider that the Internet has
provided more competitive advantage by improving brand image than managers
from building societies.*

The Internet is a new service delivery channel and it is widely accepted that
branding is an essential core strategy in Internet banking. But brand name alone is
not sufficient in a world where the Internet leads the consumer to “best buy”
information (Furash, 1999). The brand has to be tied to special products and, particularly, services to enable the bank to perform better than its competitors. Banks that have more sophisticated usage in the Internet (e.g. with better functions, easier to use, and better security and privacy control) are more likely to have a better image improvement through their Internet implementation.

Hence it is hypothesised that:

There is a positive relationship between the level of Internet usage and managers’ perception of brand image improvement through the Internet.

**Hypothesis 4c:** Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving brand image.

There is a negative relationship between the timing of Internet entry and managers’ perception of brand image improvement through the Internet.

**Hypothesis 4d:** Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by improving brand image.

**Service Quality**

In the past, expenditures on quality were not been directly linked to profits because costs and savings were the only variables about which information was readily available (Zeithaml, 2000). With the advent of better information, evidence about the profit consequences of service quality stemming from other sources has been discovered. These effects can be broken down into six categories: (1) direct effects of service quality on profits; (2) offensive effects; (3) defensive effects; (4)
the link between perceived service quality and purchase intentions; (5) customer and segment profitability; and (6) key service drivers of service quality, customer retention, and profitability.

In the retail banking sector, it is important to understand how consumers’ relative willingness to pay for competing products and service offerings changes as these offers improve over time. The extent of consumers’ decreasing marginal utility (DMU) – the degree to which consumers have a decreasing willingness to pay for performance improvements – is a key driver of the dynamics that link retail banks’ Internet investment and value creation on the consumer’s side.

Innovations in financial services products are easily imitated and as a result it is difficult for banks and building societies to maintain a competitive advantage through product differentiation. On the other hand, service differentiation has become increasingly important to competitive strategic thinking. Service quality is increasingly recognised as being of key strategic value in the financial service sector (Devlin, 1995). Customer service is an important component of a successful e-business (Cox and Dale, 2001) and online customer service may be the key to long term advantage in the digital age (Berst, 1998). Lewis et al. (1994) claim that the major benefits of strong service include: ‘satisfied and retained customers, opportunities for cross-selling; attraction of new customers; development of customer relationships, increased sales and market shares; enhanced corporate image; reduced costs and increased profit margins and business performance’. Stewart (1998) looks at the ‘complaint rate’ and the ‘exit rate’ as possible measurements of customer service. Wisner and Corney (2001) propose
that ‘customer feedback’ is a crucial factor in the evaluation of the quality of customer service.

Service quality failures are very important. It appears that winning back customers following a bad web site experience is difficult (Greengard, 2000). Virtual Surveys (2004) noted that the satisfaction of users with their Internet banking service is improving. The conclusion was drawn from the latest results from the Virtual Surveys’ Online Banking Survey (V-OBS). The number of UK customers describing their online bank as ‘excellent’ or ‘very good rose from 49 per cent in 2nd Quarter 2001 to 70 per cent in the year to 4th Quarter 2003 (See Table 2.4).

Table 2.4: Customer Satisfaction – Internet banking

<table>
<thead>
<tr>
<th>Year</th>
<th>% Excellent/Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2 2001</td>
<td>49%</td>
</tr>
<tr>
<td>Q2 2002</td>
<td>58%</td>
</tr>
<tr>
<td>Q2 2003</td>
<td>65%</td>
</tr>
<tr>
<td>Q4 2003</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: Virtual survey, 2004

However, customers are continuing to demand increased levels of service quality (White and Nteli, 2004).

Quentin Ashby, Director at Virtual Surveys Ltd, who ran the survey across all online banks, said “Some of the more highly rated online banks, such as Smile and First Direct, have continued to improve levels of customer satisfaction, but also some of the less highly rated online banks, such as Alliance & Leicester, NatWest and Egg, are now showing signs of improved performance” (See Appendix 1).

Virtual Surveys (2004) concluded that the higher levels of customer satisfaction seem to be primarily due to online banks improving the speed and
usability of their banking sites. The range of products and services offered online has also improved. In particular, customers are rating online money transfer, direct debit and standing order functions more highly than at the same period last year. In addition, Petry (2001) noted that the frequency of sign-ons by existing customers is increasing.

Ashby (2002) commented, “Whilst ratings for most online banks have improved over the past year, the bigger operators have so far failed to achieve the levels of satisfaction obtained by the likes of Smile and First Direct”.

Survey (www.virtualsurveys.com, 2003) results also revealed that an increasing number of online customers are now completing more complex transactions online. Between July and September 2003, 91 per cent of the sample of online bank users claimed to have transferred money to another account online, an increase of seven per cent on the same period last year. 87 per cent claimed to have set up a standing order or direct debit online, an increase of nine per cent on last year. When asked what aspects of their online bank they would most like to see improved, the speed of system response and range of services offered online were the most sought after improvements (26 per cent and 20 per cent of customers respectively).

Studies have shown that high levels of customer service quality can exert a positive influence on customer satisfaction (Parasuraman et al., 1988; Cronin and Taylor, 1992). Unlike manufacturing product quality that can be readily assessed, service quality is an elusive and abstract construct that poses definition and measurement obstacles. The literature has suggested that service quality is
determined by the differences between customers' expectations of service provider's performance and their evaluation of the services they received (Parasurman et al., 1985, 1988). For example, a prompt, personal and polite response increases the customer's assessment of overall service quality (Strauss and Hill, 2001; Yang, 2001).

In terms of service quality, SERVQUAL remains one of the best-known concepts (Parasuraman et al., 1985, 1988; Zeithaml et al., 1988). There have been many thoroughly tested studies to confirm the validity of SERVQUAL constructs (e.g. Cronin and Taylor, 1992). However, traditional SEVQUAL concepts cannot apply directly to an Internet based service. This is because there are fundamental differences between traditional markets with their human interfaces and established physical facilities and the new Internet markets with their operations conducted on web sites. The following table gives a summary of the research on service quality measurements, both in the traditional service markets and the Internet markets.

Table 2.5 is a summary of the previous research on service quality, with different focuses and constructs for measuring service quality.

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Constructs to measure service quality</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parasuraman et al. 1985 Zeithaml et al., 1988</td>
<td>Uncover key service quality attributes that significantly influence customers' perceptions of overall service quality. They initially identified ten determinants of service quality based on a series of focus group interview sessions</td>
<td>Service Quality in traditional retailing markets</td>
</tr>
<tr>
<td></td>
<td>1 tangibles; 2 reliability; 3 responsiveness; 4 competency; 5 courtesy; 6 communication; 7 credibility; 8 security; 9 access; and 10 understanding the customer.</td>
<td></td>
</tr>
<tr>
<td>Parasuraman et al. 1988</td>
<td>distilled these ten dimensions into five by using a factor analysis. These five dimensions are: 1 tangibles; 2 reliability; 3 responsiveness; 4 assurance; and 5 empathy.</td>
<td>SERVQUAL model in service literature</td>
</tr>
<tr>
<td>Berst, 1990</td>
<td>suggested five ways that companies measure the quality of Internet based services: page impression, reach, time online, shelf space and lifetime value.</td>
<td>Service quality in Internet arena – technical.</td>
</tr>
<tr>
<td>Johnston 1995</td>
<td>examined by using the critical incident technique, banking customers' perceptions about the service quality they received and found 18 service quality attributes. They are: 1 access; 2 aesthetics; 3 attentiveness/helpfulness; 4 availability; 5 care; 6 cleanliness/tidiness; 7 comfort; 8 commitment; 9 communication; 10 competence; 11 courtesy; 12 flexibility; 13 friendliness; 14 functionality; 15 integrity; 16 reliability; 17 responsiveness; and 18 security.</td>
<td>In the case of the banking industry</td>
</tr>
<tr>
<td>Johnston examined. by using the critical incident technique, banking customers' perceptions about the service quality they received and found 18 service quality attributes. They are: 1 access; 2 aesthetics; 3 attentiveness/helpfulness; 4 availability; 5 care; 6 cleanliness/tidiness; 7 comfort; 8 commitment; 9 communication; 10 competence; 11 courtesy; 12 flexibility; 13 friendliness; 14 functionality; 15 integrity; 16 reliability; 17 responsiveness; and 18 security.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dabholkar 1996</td>
<td>attribute-based model and Overall affect model. Measures expectations, no calculation between perception and expectation</td>
<td>New tech based self service</td>
</tr>
<tr>
<td>Jarvenpaa and Todd, 1997</td>
<td>used four constructs to explore customer reactions to E-shopping: product perception, shopping experience, customer service, and consumer risks.</td>
<td>An updated version of SERVQUAL</td>
</tr>
<tr>
<td>Bahia and Nantel, 2000</td>
<td>proposed an alternative measure of perceived service quality in retail banking that comprises 31 items with six underlying key dimensions. These dimensions are: 1 effectiveness and assurance; 2 access; 3 price; 4 tangibles; 5 service portfolio; and 6 reliability.</td>
<td>Perceived quality in retail banking – from customers' point of view.</td>
</tr>
<tr>
<td>Oppewal and Vriens, 2000</td>
<td>suggested the use of conjoint experiments to measure service quality. They developed an application for measuring retail banking service quality, which consists of 28 attributes including four service quality dimensions such as: 1 accessibility; 2 competence; 3 accuracy and friendliness; and 4 tangibles.</td>
<td>Service quality in retail banking sector– technical issues.</td>
</tr>
<tr>
<td>Joseph et al., 1999</td>
<td>investigated the influence of technology, such as the ATM, telephone, and Internet, on the delivery of banking service. Their study identified six underlying dimensions of electronic banking service quality: 1 convenience/accuracy; 2 feedback/complaint management; 3 efficiency; 4 queue management; 5 accessibility; and 6 customisation.</td>
<td>Service quality in retail banking sector—new technology comparison</td>
</tr>
<tr>
<td>Jun and Cai, 2001</td>
<td>identified a total of 17 dimensions of Internet banking service quality, which can be classified into three broad categories - customer service quality, banking service product quality, and online systems quality. The derived dimensions include: for customer service quality, ten dimensions such as reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration, and continuous improvement; for online systems quality, six dimensions such as content, accuracy, ease of use, timeliness, aesthetics, and security; and for banking service product quality, one dimension of product variety/diverse features. Also revealed that, in terms of frequency of references to the 17 dimensions, no substantial differences exist between Internet-only banks and traditional banks offering Internet banking service.</td>
<td>Internet banking service quality. Broad coverage on general service quality dimensions, technical issues and product issues.</td>
</tr>
<tr>
<td>White and Nteli, 2004</td>
<td>interview 56 internet banking customers, five key service quality attributes were identified and ranked: - responsiveness of service delivery, credibility of the Internet banking provider, security of the bank's web site, ease of use of the bank's web site, and product variety/diverse features.</td>
<td>Customers’ perception of online banking quality.</td>
</tr>
</tbody>
</table>
As for Internet banking, relatively little empirical research has addressed the issue of the key underlying dimensions of Internet banking service quality. According to Joseph and Stone (2003:200), high scores on the ability to deliver service via new technologies appear to be correlated with a high quality of service. Personal banking experience impacts on attitudes and behavior in several separate ways. Consumers dissatisfied with branch banking are more likely to change to Internet banking than satisfied customers (Karjaluoto et al., 2002). Not only waiting but also poor customer services have been impacting the consumer movement from branch banking to electronic delivery (ibid.). The most frequently mentioned factors providing the main sources of satisfaction or dissatisfaction were reliability, responsiveness, access and accuracy. The most talked about service quality issues in the Internet banking area were concerns with technical and financial resources.

Large banks are more likely to have greater technical resource and financial resource to support a website (Kowtha and Choon, 2001; as quoted in Hausdorf and Duncan, 2004), and do better than smaller ones in the information delivery field at higher levels of interactivity (Diniz, 1998). Larger banks are more geographically diversified and have more ‘physical evidence’ to better utilise an Internet strategy.

Therefore if the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the firm and managers’ perception of service quality, i.e.
Hypothesis 5a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving service quality.

There is a positive relationship between the level of Internet usage and managers’ perception of service quality.

Hypothesis 5b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided greater competitive advantage by improving service quality.

Customer Convenience

Retail banks must work aggressively to attract and acquire new customers and maintain loyal customers. To offer differentiation, Internet banks must provide customers with superior service quality. Without a quality based service differentiation, customers will possibly either move to a competitive site because of price, or a site that provides better service. Therefore online banks endeavor to improve service quality by providing customer convenience and by building personalised experiences, improved customer service, and customised interfaces. Through these programs, online banks hope to maintain their customer base, which cost them so much to acquire.

Consumers are becoming busier and hence are seeking to carry out transactions at a time of their convenience. Internet banks in most cases operate 24 hours a day, seven days a week. In this way therefore, Internet banking provides many benefits to both banks and their customers.
The Internet is dynamic, offering the potential of limitless information that can be updated and amended easily and speedily by retail banks (Waite and Harrison, 2004). The Internet also provides accessibility to information. Search engines (e.g. google.com), simplify and reduce the time and effort related to search activity, and increase the consumer’s control and their automation of search activity, encouraging extended search behaviour (Waite and Harrison, 2004).

Some Internet banks tend to provide better service through building personalised experiences, improved customer service, and customised interfaces. The trend towards “convergence banking” is predicted to shape the future of Internet banking (e.g. Banks are adding real-time loan applications, the ability to make IRA investments in the US, and the opportunity to trade stocks through their web sites). The concept of “one-stop” shopping is convenient and leads to more satisfied customers (Engen, 2000).

Many banking industry analysts predict that power in the retail financial services sector will shift very soon to innovative entrants offering an attractive, efficient and customer-centric consumer banking interface through the Internet (Hensmans et al., 2001).

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the firm and managers’ perception of customer convenience offered by the Internet, i.e.

*Hypothesis 5c: Managers from big banks tend to consider that the Internet has provided more competitive advantage by offering customers greater convenience.*
There is a positive relationship between the level of Internet usage and managers’ perception of customer convenience offered by the Internet.

Hypothesis 5d: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience.

Customer Interaction:

Service quality has been mostly associated with customer interaction (Meuter et al., 2000) and a key attraction of the Internet is the level of interactivity that can exist between a buyer and a seller (Durkin and Howcroft, 2003: 61). In the financial services sector, e-commerce offers the promise of increased information about customers and, therefore, provides the opportunity for more detailed analysis of customers’ behaviour and needs (ibid.).

The interactive nature of the Internet, enabling more personalised marketing offers, allows the potential to create additional value to consumers. The Internet is regarded as potentially the “ultimate relationship marketing tool” (Zineldin, 2000), allowing retail banks to become truly customer focused and potentially creating superior value (Srirojanant and Thirkell, 1998).

Ogrizek (2002) and Hodgson (2002) argue that banks have an inherent social responsibility to “know their customer”. The “know your customer” requirement imposes a broad responsibility on financial institutions to become familiar with the financial affairs of their clients, mainly to prevent them from being mis-sold inappropriate policies or investments. However, the “know your
customer requirement” also has implications for complying with other legislation, relating to matters such as money laundering. Joseph and Stone (2003:198) proposed that the enhancement of customer interaction will improve the overall customer perception of the quality of service provided by the individual bank. Successfully servicing the customer, dealing with their problems and addressing their complaints, will increase the loyalty of their customers and improve the positive effects of word of mouth interactions between potential customers. This word of mouth effect is currently the most vital form of advertising for online banks.

Luneborg and Nielsen (2003) found that to some customers, user friendly and attractive websites are more important than multiple diverse applications. Some researchers claim that small banks, including building societies, tend to offer a somewhat higher degree of person to person interaction with retail customers (DeYoung et al., 2003).

Gomez, Inc. queried more than 3,500 online users to find out what gave them high, moderate, or low satisfaction with their e-banking experiences (Orr, 2001:43). Overall satisfaction correlate with wait time for a CSR response, the overall level of Internet usage and the functionality of the web site (i.e. low satisfaction correlates with low functionality).

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the firm and managers’ perception of customer interaction improvement through the Internet, i.e.
Hypothesis 5e: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving customer interaction.

There is a positive relationship between the level of Internet usage and managers’ perception of customer interaction improvement through the Internet, i.e.

Hypothesis 5f: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving customer interaction.

Enhances the customer base

One of the primary objectives of a successful marketing model is to retain existing customers as well as to attract new customers. The Internet supersedes or reduces physical boundaries, which allows retail banks to reach a larger base of potential customers (Peppard, 2000; Quelch and Klein, 1996; DeYoung, 2001; Dutta and Biren, 2001; Salmen and Muir, 2003). In addition, Internet demographics suggest that it is the relatively well off and the well educated that use the Internet, which suggests that potential E-banking users are high net worth customers (Jayawardhena and Foley, 2000; Polatoglu and Ekin, 2001). Despite the fact that most Internet banks are struggling to be profitable, retail banks view the channel as an irresistible means of attracting and maintaining customers (Pyun et al., 2002).

Indeed, for small firms, Levenburg and Dandridge (2000) proposed that the Internet offers “an opportunity to cost-effectively reach new markets, primarily
because the costs associated with establishing an Internet presence are relatively low”.

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the firm and managers’ perception of customer base enhancement through the Internet, i.e.

*Hypothesis 6a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by attracting more new customers.*

There is a positive relationship between the level of Internet usage and managers’ perception of attracting new customer through the Internet, i.e.

*Hypothesis 6b: Managers from banks with higher Internet usage tend to consider that the Internet has provided more competitive advantage by attracting more new customers.*

There is a positive relationship between the timing of Internet entry and managers’ perception of attracting new customer through the Internet, i.e.

*Hypothesis 6c: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by attracting more new customers.*

As mentioned above, potential E-banking users are high net worth customers (Daniel, 1999; Jayawardhana and Foley, 2000; Karjaluoto et al., 2002; Kolodinsky et al., 2004). This can be of value especially when considering the new generation of affluent private customers (young, educated, highly paid individuals,
rich heirs and wealthy divorcees), is generally well-versed in technology, typically employed in managerial posts, is open-minded and more risk-embracing than the average people (Salmen and Muir, 2003). Jayawardhana and Foley (2000) suggested that such a better educated and wealthier segment represents a profitable and less risky customer base for many reasons. Most importantly, they deal with larger sums of money, and therefore, have more purchasing power to enable them to buy banks’ products and services, such as investments and insurances.

Nath et al. (2001) claimed that at Wells Fargo bank, online customers have an annual average income of $75,000 with education levels higher than the average Wells Fargo customer (Hoffman, 1999). Also, this group of customers is more profitable than their bricks-and-mortar counterparts. They generate 50 per cent more revenue than the average, hold 20 per cent higher balances; use 50 per cent more products, and their attrition rate is 50 per cent of the overall attrition rate. Furthermore, on average, it costs 14 per cent less to service these customers as compared to bricks-and-mortar customers (Timewell and Kung, 1999).

“More affluent investors use the Web today to manage their investments than they did six years ago” (Punishill et al., 2004). Financial institutions take note: nearly two-thirds of Europe’s affluent are online, and they are twice as likely to use online information to guide their financial decisions as the non-affluent (Kruijsdijk and Torris, 2004). Consequently, there are already some banks using the Internet to target higher-end customers. For instance, EverBank takes only a $1,500 minimum deposit to open an on-line checking account (Kite, 2004). Robert Foregger, COO of EverBank National Banking Group, remarked, “We have
different business lines, but for our branchless bank, which is our national banking group, it is really a higher-end client” (ibid.).

More affluent customers, especially in the segments of younger, highly educated, highly paid, or wealthy inheritor customers, are a more lucrative/revenue target segment, which expects personalised service. They expect this service to be quick, state-of-the-art, convenient and efficient (Salmen and Muir, 2003). Some degree of personalisation is key to maintaining customer loyalty (Luneborg and Nielsen, 2003). These more affluent customers are also looking for variety; therefore a multi-channel approach can be cost-effective.

Large banks are usually more competitive and have narrower interest rate spreads (lending rate - deposit rate) and smaller net interest margins: (interest income - interest expense) /assets. Consequently, large banks are more likely to provide better product range (better lending and saving rates) and more advanced Internet-based offerings to attract new customers and maintain high profile customers.

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the firm and managers’ perception of retaining high profile customers through the Internet, i.e.

Hypothesis 6d: Managers from big banks tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.
There is a negative relationship between the level of Internet usage and managers' perception of retaining high profile customers through the Internet, i.e.

Hypothesis 6e: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

Cross-selling

Today, consumers hold more financial products with retail banks than any other type of financial organisation because retail banks provide an array of financial products (Datamonitor, 2004). Cross-selling a vast array of financial services can require a bank to operate on a large scale and/or have a high degree of financial expertise (DeYoung, 2001). Santomero and Eckles (2000) emphasised that the real benefit of multiple product distribution may not only be in production efficiencies but also in customer service, in what they term the "consumption economy", which derives from the cross selling potential of a retail bank that produces various products and services. The result will be higher revenue and a better return from any customer segment, if consumers of retail banks find it more convenient to purchase multiple products from the same bank. Researchers have proved that customers have the willingness to undertake one-stop shopping, that is buying many products and/or services from one supplier (Latimore et al., 2000; Jun and Cai, 2001). Although today, retail banks use CRM to identify the target market for cross selling and branches remain the key source of cross sales. The Internet will facilitate retail banks cross-selling opportunities less expensively —
for example by offering a mortgage, a credit card, an overdraft facility, and insurance services in one account (e.g. Egg.com).

For a retail bank just starting Internet services, the biggest expense is the one-time set up fee. The set up cost would be modestly offset by subsequent savings of customer service (e.g., fewer statements mailed; fewer phone inquiries), and the biggest contributor to profits would be revenues from cross-selling new products (Orr, 2001).

Datamonitor.com (2003) maintained that the UK Big Four retail banks dominate the cross selling of financial products, like personal loans. Consumers held more financial products with Lloyds TSB than other retail banks, followed by HSBC Barclays, NatWest and Halifax (ibid.). Some “packaged accounts”, with “lock in” effect, are designed to promote cross selling and the usage rates on package accounts are likely to be high. RBS had high packaged account penetration levels whereas Lloyds TSB was top in numbers of packaged accounts.

The analysis from Datamonitor (2004) also showed that the bank branch is one of the key assets in fighting for cross selling products and/or services to customers. A significant proportion of multi account holders choose their bank because it had a branch nearby. There is no doubt that big banks have more branches than their small competitors.

If the assumptions mentioned in section 2.4.2 and 2.4.3 are extant, it can be hypothesised that:

There is a positive relationship between the size of the bank and managers’ perception of product cross-selling ability, i.e.
Hypothesis 7a: Managers from big banks tend to consider that the Internet has provided more competitive advantage through greater products cross selling.

There is a positive relationship between the level of Internet usage and managers' perception of product cross-selling ability, i.e.

Hypothesis 7b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage of through greater products cross selling.

In next section, the specific hypotheses which were put forth to enable the research model to be empirically tested, are listed. A total of 24 hypotheses (seven groups) were derived. They were listed above and are summarised in Table 2.6.

Table 2.6: Research Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis Number</th>
<th>Detailed Research Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a:</td>
<td>Bigger banks tend to have a higher level of Internet usage.</td>
</tr>
<tr>
<td>1b:</td>
<td>Retail banks tend to have a higher level of Internet usage than building societies.</td>
</tr>
<tr>
<td>2a:</td>
<td>Bigger banks tend to enter the Internet arena earlier.</td>
</tr>
<tr>
<td>2b:</td>
<td>Retail banks tend to enter Internet arena earlier than building societies.</td>
</tr>
<tr>
<td>3a:</td>
<td>Managers from bigger banks tend to consider that the Internet has provided more competitive advantage to larger banks by a superior relative reduction in cost than managers from smaller banks.</td>
</tr>
<tr>
<td>3b:</td>
<td>Managers from retail banks tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from building societies.</td>
</tr>
<tr>
<td>3c:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
</tr>
<tr>
<td>3d:</td>
<td>Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
</tr>
<tr>
<td>4a:</td>
<td>Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
</tr>
<tr>
<td>4b:</td>
<td>Managers from retail banks tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
</tr>
<tr>
<td>4c:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
</tr>
<tr>
<td>4d:</td>
<td>Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage of brand image improvement.</td>
</tr>
</tbody>
</table>
5a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving service quality.
5b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving service quality.
5c: Managers from big banks tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience.
5d: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience.
5e: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving customer interaction.
5f: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving customer interaction.
6a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by attracting more new customers.
6b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by attracting more new customers.
6c: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by attracting more new customers.
6d: Managers from big banks tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.
6e: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.
7a: Managers from big banks tend to consider that the Internet has provided more competitive advantage through greater products cross selling.
7b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage through greater products cross selling.

The study has developed a conceptual model to investigate the variables, which determine retail banks' Internet strategies and to consider which variables influence managers' perceptions of competitive advantage achieved by the Internet. Figure 2.2 is a schematic of the proposed research model. The simple mediation model is shown as Figure 2.1. The research hypotheses, listed above, were then mapped to the model. The literature suggests that managers' perception of competitive advantage achieved by the Internet could be influenced by the characteristics of banks they are employed by and the Internet strategies those
banks employed. The Internet strategies of banks could be influenced by the size and type of the banks.

**Figure 2.1: Research Mediation Model**

![Diagram](image)

Independent variables are the characteristics of the banks, which include the size of the bank and the type of the bank. Mediator variables are the Internet strategies employed by retail banks, which comprise the level of Internet usage and the timing of Internet entry. The dependent variables are concerned with managers' perception of competitive advantage gained through the Internet and these advantages are grouped into five issues: cost reduction, brand differentiation, service differentiation, enhanced customer based, and cross-selling. The measurement instrument for each variable is detailed in Chapter three.
Figure 2.2: Research Hypotheses and Mediation Model

Mediator Variables
Internet Strategy

Level of Internet usage
Transaction | Communication | Advertisement level

Timing of Internet Entry
First mover | early follower | late entry

Independent Variables
Size of the bank
Big | Medium | Small

Type of the bank
Retail bank | Building Society

Dependent Variables
Respondents' perception of
Competitive advantage provided by the Internet
Strongly disagree | Strongly agree

Cost reduction
Brand differentiation
Service Quality
Service Differentiation
Customer convenience
Customer interaction

Reach new customers
Maintain high profile customers

Cross-selling
Chapter two provided a review of the relevant literature upon which this dissertation is based. First, the extant literature on competitive advantage was reviewed to gain an understanding of the context of competitive advantage in retail banking. Then the literature on competitive advantage and the Internet in retail banking sector was presented and research gaps were identified. Further, a set of specific hypotheses were put forth to enable the research model to be empirically tested. A total of 25 hypotheses were derived, which are summarised in table 2.6. In the following chapter, the research methodology is justified and a triangulation research tool is utilised to address the research question. This is discussed in some detail.
Chapter 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter presents the epistemological position underpinning the study and introduces the research approach and tools employed in carrying it out.

It is always desirable to select a methodology that maximises generalisability, realism and precision (McGrath, 1982). The discussion of the methodology is structured as follows: Section 3.2 investigates the meta-theoretical assumption/epistemological stance of the research and introduces the application of triangulation methodology. It should be noted that the methodology was designed with the underlying research questions in mind. Section 3.3 overviews the triangulation methods employed in the research. Section 3.4 presents detailed interview procedures; and section 3.5 discusses the issues involved in the survey. Finally, section 3.6 presents a general summary of the methodology used in the study and presents the contribution of the research in both the theoretical and practical spheres in terms of validity and significance.

3.2 ONTOLOGY AND EPISTEMOLOGY

At the heart of scientific philosophy are intertwined concepts of ontology and epistemology. Ontology concerns reality and its nature, whereas epistemology is the study of knowledge construction and is thereby distinguished from ontology (Smith, 1998).
There are two major approaches to theory development, deductive theory testing and inductive theory building. The deductive approach represents the positivist paradigm and the inductive approach represents the phenomenological paradigm, which can be further divided into critical theory, constructivism and realism (Guba and Lincoln, 1994; Perry, 1998). Perry (1998) introduces a framework that categorises the above-mentioned paradigms into three dimensions (see Table 3.1).

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Deduction/induction</th>
<th>Dimension</th>
<th>Commensurable/incommensurable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positivism</td>
<td>Deduction</td>
<td>Objective</td>
<td>Commensurable</td>
</tr>
<tr>
<td>Critical theory</td>
<td>Induction</td>
<td>Subjective</td>
<td>Commensurable</td>
</tr>
<tr>
<td>Constructivism</td>
<td>Induction</td>
<td>Subjective</td>
<td>Incommensurable</td>
</tr>
<tr>
<td>Realism</td>
<td>Induction</td>
<td>Objective</td>
<td>Commensurable</td>
</tr>
</tbody>
</table>

Source: Perry (1998:786)

The two distinct philosophical approaches to developing research have been the subject of an ongoing debate in social science: positivism and realism. In positivist research, empirical regularities have the status of scientific laws (Smith, 1998:101). Positivism looks for causal explanations and fundamental laws, and generally reduces the whole into its simplest possible elements with the aim of facilitating analysis (Easterby-Smith and Thorpe, 2002). There are some major implications of this approach, for example, the need for the independence of the observer from the subject being observed; and the need to formulate hypotheses for subsequent verification.
The realism approach, also known as the interpretative or phenomenological approach, understands reality as holistic, and socially constructed, rather than objectively determined. The realist researcher tries to understand and explain a phenomenon, rather than search for external cause or fundamental laws (Perry, 1998; Easterby-Smith and Thorpe, 2002). According to the realism approach, there is an external reality that can be revealed by collecting observable and unobservable phenomena and findings are evaluated by for example, reliability and validity (Hunt, 1991; Perry, 1998). Therefore the researcher should not gather facts or simply measure how often certain patterns occur, but rather appreciate the different constructions and meanings people place upon their own experiences and the reasons for these differences.

Critical theory hypothesises that all theories are for someone and for some purpose. Critical theorists seek to demonstrate the connection between knowledge and practice, fact and value, and make connections between the knower and the known. Critical theory does not compare reality with a hypothesis in order to prove a theory, as in positivism, or mine a collection of data in order to generate theory. Critical theory compares reality as collected in the form of data, with a view of what reality should be like. The aim in this form of research is to find ways of improving reality and it is manifest in educational research as action research. Action researchers would argue that this form of research empowers individuals within an educational system by enabling them to reflect on their practice and thus contribute to a better deal for society. The reflective view of professional practice engendered by action research, or evidence based practice, is a “good professional procedure” (Kearsey and Atherto, 2003).
However this leads to a number of disadvantages with critical theory. Firstly, the research effort depends on the view of practice, which is defined as good or desirable. This is inevitably political, unstable and therefore varying with time and space. Therefore in addition, the research effort depends on the power relationship between the person who decides upon view of practice, which is defined as good or desirable, and the researcher. Another disadvantage with critical theory is that it does not allow for "blue sky" research as it is entirely based on views of current practice. In addition, researchers need support to develop professionally through their research and therefore, effective action researchers are members of research communities. Researchers are also prone to bringing prejudices and bad practice into their research as easily as they are good practice. Research based on critical theory may progress in a slow and cumbersome fashion in comparison with insightful, philosophically led, research.

Constructivism is a phenomenological orientation to inquiry in which 'meaning' is the prime focus (Guba and Lincoln, 1989). The concept of constructivism has roots in classical antiquity, going back to Socrates's dialogues with his followers, in which he asked directed questions that led his students to realise for themselves the weaknesses in their thinking. One of the main assumptions of a constructivist approach is that identities, norms, and culture play important roles in world politics. Identities and interests of states are not simply structurally determined, but are rather produced by interactions, institutions, norms, and cultures. It is process, not structure, which determines the manner in which states interact. The constructivist and radical constructivist theories assume that knowledge results from a more or less continual process in which it is both built
and continually tested. From the perspective of the constructivist and radical constructivist theories, knowledge should no longer be judged in terms of whether it is true or false, but in terms of whether it works. The only thing that matters is whether the knowledge we construct functions satisfactorily in the context in which it arises.

From the epistemological point of view, the current research follows a positivist paradigm. In essence, the positivist’s perception, which dominates in marketing science, “seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements” (Burrell and Morgan, 1979:5). The study aims to analyse the issues relating to Internet usage in the UK retail banking sector and build a theoretic model based on literature review. The survey method is used to collect data and regression analyses are used to test the proposed hypotheses.

Yet, for a survey to succeed in elucidating causal relationships or in providing descriptive statistics, it must contain all the apposite questions asked in an appropriate way. The researcher should have a very good idea of suitable answers before starting a survey. Thus, traditional survey research usually serves as a methodology of verification rather than of discovery. Ackoff (quoted by Locke, 1989) expresses the much stronger view that “Strict adherence to quantitative methods and highly simplified experimentation and the complete neglect of qualitative issues, context and situational complexity, smacks of ‘mathematical masturbation’ without substantial knowledge of organisations, institutions, or their management”.

128
Churchill (1979) claims that "marketers are much better served with multi-item rather than single-item measures of their constructs, and they should take the time to develop them". In contrast to the quantitative survey method, qualitative interview guides can be adapted in the positivist approach. This flexibility offers scope for the researcher organising frameworks sensitive to the meanings and issues raised by the interviewee. It is recognised that not all interview methods are interpretive. Interviews are normally associated with qualitative research, but can also be used as a method of inquiry employing a positivist epistemology and ontology.

Hence, the current study follows a positivist approach and utilises both qualitative and quantitative methods. First, six interviews were performed, one for each of six banking institutions. These interviews were performed in order to examine competitive advantage in depth for a small number of banking institutions with disparate characteristics. Then, a quantitative survey approach was employed in order to test a set of hypotheses.

### 3.3 THE RESEARCH METHOD

Mingers (2001: 242) claims that research methodology is a "structured set of guidelines or activities to assist in generating valid and reliable research results". All research (whether qualitative or quantitative) is based on some underlying assumptions about what comprises a 'valid' research and which research methods are suitable.
This research utilises a triangulation method (both qualitative and quantitative) and follows a positivist tradition. Qualitative research “involves the use of qualitative data to understand and explain social phenomena” (Myers, 1997). Qualitative researchers assume that human behaviour is always bound to the context in which it occurs and reject the idea that human behaviour can be studied with the same methods as the natural or physical sciences. Qualitative research can also follow a positivist approach, see for example Yin (2002) and Benbasat et al.’s (1987) study on case study research. Quantitative research is “generally characterised by a methodology of formulating hypotheses that are tested through controlled experiments or statistical analysis” (Kaplan and Duchon, 1988). Quantitative research reduces human behaviours to a set of finite characteristics that can be quantified and generalised so that they can be easily tested. As Kaplan and Duchon (1988) point out, combining qualitative and quantitative methods invest both context and testability into the research. The fundamental belief is that qualitative and quantitative methods should be viewed as complementary rather than in rival camps (Jick, 1979).

A combination of qualitative (semi-structured interviews) and quantitative research (email and postal surveys) techniques was used as part of the study (See figure 3.1) to assess the validity of a research model which has been developed from existing literature. Before employing quantitative research methods, interviews help the researcher gain a close relationship between context, content and process in order to develop a deep understanding of the research environment (Pettigrew, 1990:270).
Figure 3.1 illustrates how the research plan started with pilot interviews of the quality of a research model arising from the literature, improved data collection methods and reviewing the potential validity of the emerging theoretical constructs. The following diagram explains how the validity and generality of the research results was enhanced as the result of the triangulation of information (as suggested by Eisenhardt, 1989:539).

**Figure 3.1: Triangulation Research Methods**

- **Pilot stage**
  - Primary discussion with bankers
  - Identify interviewees

- **Fieldwork stage**
  - Interviews: 6 semi-structured interviews (cross case comparison)
  - Identify key issues

- **Follow-up stage**
  - Improve interviews
  - Pre-test questionnaire
  - Revise questionnaire

- **Literature & Research framework**

- **Survey Stage**
  - Questionnaire design

- **Questionnaire Ready?**
  - NO → Questionnaire revising
  - YES → Data collection
3.4 INTERVIEW RESEARCH METHOD

This section discusses the use of interview methodology. It starts with an overview of the motivation for exploratory interviews. Next detailed interview design techniques are discussed. It then looks at methods of data collection followed by an examination of data analysis strategies.

3.4.1 Motivation for the Exploratory Interviews

The interview method focuses on understanding the dynamics present within single settings. An interview design is a desirable research strategy for the exploratory stage of an investigation, since it “investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 1994:13). As a synergistic complement to a quantitative research strategy (survey in the research), the interview can be used to explore and fully describe the meaning of a certain phenomenon in its environment instead of through the evaluation of statistics and frequency said (Eisenhardt, 1989:534).

The interview method was also considered to be particularly appropriate for the first stage of this research because of:

- The difficulty in distinguishing between a phenomena and its context. This is an issue in all research.
- The novelty of the field. As discussed in the literature review, the field is both new and relatively under researched.
The research attempts to address "why" and "how" questions in the first stage rather than frequency or incidence. The aforementioned list of hypotheses all contain why and how issues.

To guide the exploration in these interviews, the following research questions were posed:

1) How do respondents perceive competitive advantage through the Internet in the UK retail banking sector?

2) How and why do UK retail banks use the Internet?

3) Why are some retail bank managers more convinced of the benefits of the Internet as a generator of competitive advantage than others?

4) And how does this relate to characteristics of their banks, e.g. the size and type of bank, and their Internet strategies, e.g. level of Internet usage and timing of Internet entry?

The above issues are 'how' and 'why' questions in a relatively under-researched area and there is not enough information to formulate hypotheses to be tested in a large-scale quantitative study. Answering the research questions enabled the researcher to make essential refinements to the theoretical framework (see Chapter 3).

Firstly, by focusing on 'how' and 'why' questions, the interviews enable a descriptive and exploratory approach to the research objective. The objective was to involve managers, who are concerned with channel decision-making relating to Internet delivery and who encounter the concepts of competitive advantage in their real-life context. Secondly, the interview method allows the researcher to
crosscheck different data sources and different methods of analysis from the literature. The different data sources offer more comprehensive insight into the subject matter than a single data source would allow. Considering this advantage, interview research on the competitive advantage of Internet banking required the research to address the complexity of this new phenomenon from the viewpoint of different areas of the literature, for example, service, e-commerce, IT, etc.

Moreover, the interviews involve managers from different seniority levels and departments, each with their own perception of the advantage of Internet banking. A close relationship between the respondent and the researcher is necessary to facilitate the collection of information for understanding the research problem as a perception. Therefore, throughout the interviews and visits the researcher attempted to build a close relationship with the respondents.

Thirdly, at the time when the interview method was chosen, there were some concerns as to whether the sample size was sufficient for the quantitative phase of the study, therefore, there was no guarantee that the triangulation method could be used effectively. Taken together, these reasons supported an interview methodology.

3.4.2 Interview Design

Based on the research model developed from the literature, a reasonable number of cases had to be chosen to see patterns across the cases as well as differences. There were eight semi-structured interviews (each lasting one to two hours with additional telephone and e-mail clarifications) with senior managers (all
at head office level) from six UK retail banks, telephone and Internet-only banks and building societies. Yin (1994) and Saunders et al. (1997:212) point out that “semi-structured interviews are used in qualitative research in order to conduct exploratory discussions to reveal and understand ‘how’ and ‘why’ questions”. Easterby-Smith and Thorpe (2002) recommended semi-structured interviews to provide a framework in order to develop themes. The interviews were used to assess the validity of the research model and gain an understanding of competitive advantage in retail banking sector and obtain factual information about the advantage gained through the Internet.

The six retail banks represented all three main types of retail banks in the UK, namely, high street retail banks, building societies, and telephone and Internet only banks (see Table 3.2). In each case the company is taken as the unit of analysis. The interviewees were all senior executives in charge of designing the bank’s strategy (i.e. chief executives, managing directors, and Internet division directors) and they were from different sizes and scopes of organisation. Yin’s (1994) ‘maximum variation’ sampling technique is most appropriate for analytical and general purposes. Using this technique, not only were “typical cases” like retail banks and building societies included in the research, but some “critical cases” like Egg, Internet only bank and First Direct, telephone and Internet only banks were part of the sampling as well. The cases, therefore, were a representative sample of UK retail banks offering various products, geographic and market segments in the UK retail financial market.
Table 3.2: Criteria for Selection of the Interviews

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Internet Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Bank of Scotland</td>
<td>Retail bank with a series of divisions</td>
<td>Big five in the UK</td>
</tr>
<tr>
<td>First Direct</td>
<td>Telephone and Internet only bank</td>
<td>Medium (subsidiary of big five-HSBC)</td>
</tr>
<tr>
<td>Egg</td>
<td>Internet only bank</td>
<td>Small</td>
</tr>
<tr>
<td>Allied Irish Bank</td>
<td>Retail bank</td>
<td>Big</td>
</tr>
<tr>
<td>Clydesdale</td>
<td>Retail bank</td>
<td>Big</td>
</tr>
<tr>
<td>Leeds Holbeck</td>
<td>Building society</td>
<td>Medium</td>
</tr>
</tbody>
</table>

This study applied the general framework derived from the theoretical discussion in Chapter three. Copied from existing literature, the guidelines for data collection were formulated and issues were specified that would need special attention. The framework was also fine-tuned based on the findings from the interviews.

These six "exploratory" interviews were designed to look into practical issues in the theoretical framework and provide guidelines for a second stage quantitative survey. The goal of the analysis was to understand managers' perceptions of competitive advantage in retail banking sector and the relationship between the characteristics of the firms, Internet strategy adopted and perceived competitive advantage achieved through the Internet.

The subject matter of the exploratory interviews was divided into three analytical stages (See Chapter five):
- A description of the background of the bank and the Internet strategy it adopts;

- A discussion of the perception of competitive advantage in the UK retail banking sector and issues related to the Internet;

- An assessment of whether the perceived competitive advantage through the Internet is related to the characteristics of the bank or its Internet strategies.

3.4.3 Data Collection

Preliminary email letters (See Appendix 2) were sent to CEOs, managing directors, and/or Internet banking managers in eight UK retail banks prior to conducting the on-site visits. This letter served to provide notice and support for the upcoming visits. As an incentive for participation in the interviews, interviewees were offered a summary report with the main statistical findings. Six retail banks contacted replied and agreed to take part in the interviews, which represented a high 75 per cent respondent rate. The interviews were a face-to-face interaction between the researcher collecting the information and the manager giving the information. The interviews used a formal list of questions developed to achieve the objectives discussed above. However an amount of flexibility was put into the interviews. This method was chosen because some of the questions that had been developed to achieve the objectives of the interviews could be thought of as spying or might have offend the sensibilities of those involved. During a face-to-face encounter, the researcher sought to allay their fears as well as pick up information not otherwise offered through the impersonal questionnaire that may be pertinent to the investigation. The interview also had the advantage of revealing
more data than could be gleaned by the questionnaire in that the questionnaire yielded preset answers but the interview had the advantage of the spoken word which gave more information.

Concerns expressed by the respondents to the interview were; anonymity and privacy or fear of the possibility of spreading the information collected to administration. Therefore, several “safeguards” for protecting the participants of the study were employed. Firstly, the research objectives were verbally articulated (by emails and telephone prior to the interviews), so that the participants could understand and discuss their concerns with the researcher. Written permission by email was obtained prior to the study. At the beginning of each interview, the interviewee was asked for their permission to tape record the interview. All interviewees granted permission to record the interviews. Prior to each interview, the research informed the interviewee that all answers would be confidential.

Eight semi-structured interviews were conducted between March 2003 and May 2003. All interviews were taped, transcribed and coded after the manner of Remenyi et al. (1998). The length of the interviews varied from 50 minutes to 90 minutes. Although the interviews were semi-structured as discussed above, the interviewees were encouraged to speak at length about their ideas on competitive advantage in retail banking sector.

In order to generate greater assurance that the information was reliable, two crosschecking interviews were conducted. These interviews with the second set of managers were useful and confirmed the information provided by the key initial interviewees. After the interviews, managers were shown the questionnaire and
asked if the survey had accurately captured the issues discussed during interviews. Pre-tested questionnaires also ensured that all respondents could respond to and answer one survey thus maximising its applicability.

3.4.4 Data Analysis Strategy

In data analysis the researcher examines, categorises, tabulates and/or recombines the evidence collected to address the initial propositions of the study. Miles and Huberman’s (1994) data analysis strategy is among the very few sources to guide researchers in qualitative data analysis procedure (Yin, 1994:103). The researcher adopted the three-step analysis strategy, which contains three concurrent flows of activity, namely, data reduction, data display, and conclusion drawing/verification.

Data reduction is the “process of selecting, focusing, simplifying, abstracting, and transforming” the collected data (Miles and Huberman, 1994:10). The data were ‘reduced’ by writing summaries, coding, testing out themes, making cluster partitions, etc. Data display is an “organised, compressed assembly of information that permits conclusion drawing and action” (ibid.). Here, tables and graphs were used to organise the data into an easily understandable and analysable form. Cases were presented in a comparable manner. Conclusion drawing is the process of drawing meanings from data by “noting regularities, patterns, expectations, possible configurations, casual flows and propositions” (Miles and Huberman, 1994:11). By checking back with previous notes, searching for opinions of other individuals, looking for replicate findings in another data set, the researcher can verify the conclusions drawn.
The above-mentioned three-step analysis techniques recommended by Miles and Huberman (1994) were used to guide the analysis of the qualitative data. Each recorded interview was transcribed and stored in a Word document and then the data were coded. The data were coded at the sentence level, each sentence was coded into either:

1) One of the categories that was pre-determined from the research framework.

2) A new category that was not pre-determined but had emerged during the interviews

3) Into multiple categories or

4) Not coded if it was found out to be unrelated to the competitive advantage concept in retail banking sector.

3.5 SURVEY METHODOLOGY

This section discusses the survey methodology used in the study. It opens with an overview of the motivation for the survey method. Next, a brief description of survey design techniques is introduced followed by a discussion of survey measurement instruments. Then, sample selection is discussed and data collection methods are considered. After that respondent and sample profiles are exhibited, and then there is an overview of the data analysis techniques presented.
3.5.1 Motivation for the Survey

Survey research is the systematic gathering of information from respondents for the purpose of understanding and/or predicting some aspect of behavior of the population of interest (Tull, 1986). Survey research can be described as a mode of inquiry that involves the collection and organisation of systematic data and statistical analysis of the results (de Vaus, 1995). The survey method was deemed appropriate for the second stage of the fieldwork for a number of reasons.

Firstly, the main purposes of the interview part of the study were to address the propositions and test their associated hypotheses, assess the validity and generalisability of the modified theoretical framework that emerged following the interviews (Van Der Zwaan, 1990). Therefore, it was necessary to employ a survey methodology that permitted theoretical propositions to be tested in an objective fashion, in which the researcher was able to establish relationships and make generalisations about a known population (Doyle, 2002).

Secondly, in order to test the hypothesised relationships and model, it was important to use a survey methodology that allowed the study of values, beliefs and relations of constructs to be investigated in a systematic way. Furthermore, in order to obtain a reasonable sample size to statistically test the research framework and hypotheses, as well as to increase the accuracy of the findings, it was necessary to obtain data from a large portion of the selected sample. Using a survey research methodology, the researcher was able to describe large and heterogeneous populations more efficiently.
Last but not least, results and findings from the analysis of survey data were also important for comparison with previous interviews. The questionnaire as a standardised measurement was used to provide comparable information from respondents taking the survey, which allowed for meaningful analysis.

In summary, to answer the research questions and test the research framework and hypotheses, survey methodology served as an appropriate research tool.

3.5.2 Survey Design

In this "explanatory research", a survey is devoted to finding causal relationships among variables. It does so from theory-based expectations on how and why variables should be related. Results then are interpreted and in turn contribute to theory development.

Questionnaire construction and wording began with a review of the literature, with a special focus on generating a pool of items that tap the core elements in the general framework (see Chapter Two). Additionally, the six in-depth field interviews carried out in the interview provided a great deal of information about the concepts. The survey consisted of three parts;

1) the characteristics of the respondents' firms and their Internet strategies,

2) questions concerning competitive advantage and the Internet in the UK retail banking sector,
3) respondents’ personal details. The questionnaire consisted of multiple response modes, including forced-response questions and open-ended questions.

The questionnaire took into account Belsen’s (1962) remarks that the basic rules of good questionnaire design are to keep it short, keep it simple and make sure that it is understood”. Therefore the questionnaire was designed to be concise. It consisted of four-pages of A4 in the mail version. Various measurement scales were featured in the study. Many questions were scaled to an essentially measured degree of agreement on a 5-point Likert scale (“1” for “strongly disagree” and “5” for “strongly agree”). Likert scales are among the most popular types of scales used in marketing (Grodsky, 2001). Although individual Likert-scale items are not interval scale variables, sums of several such items, as were used in the current study, are typically treated as such. The scale questions were randomised in the actual survey. Of the 19 scale questions/statements in the survey, two were worded negatively and the rest positively as has been recommended (Churchill, 1979). There was one open-ended question. The use of open-ended questions in mail survey questionnaires is generally not recommended (deVaus, 1995), due to problems of respondent understanding and an inability to clarify what the question means as well as potential difficulties in interpreting the responses. However, as the questionnaire closely followed the established interview protocol, was examined by both bankers and academics in questionnaire design, and pilot tested, the level of ambiguity in the questions was minimised.
Brownell (1995:38) proposes that the items, which comprise a survey instrument, should be subject to four tests, essentially multi-methods of reliability and validity analyses, being:

- Reliability test
- Coding of open-ended questions
- Identification of categories in open-ended questions, and
- Comparison of written and interview versions

Swartz and Boaden (1997) emphasise the importance of piloting a questionnaire; they also suggest consulting with professional experts and cultural insiders on the structure and content before using a questionnaire. The original questionnaire was therefore ‘refereed’ by several academics, and four of the retail bank managers. The feedback received was used to make important changes to the questionnaire.

In the first phase of the pre-test, academics reviewed the questions, scales, instructions and appropriateness of the questions and language to the target population. They provided valuable feedback on the instrument both in written and oral form. Several revisions were made to the survey instrument based on the feedback from the academics.

In the second phase, several managers interviewed in the qualitative component of the research took part in the pilot survey, providing a robust test of consistency and stability in responses. The interviewees were asked to complete the questionnaire and were then asked to carefully examine the instrument and give feedback on the content, wording, and clarity of the questions in particular and to
provide any comments on the instrument in general. The practitioners provided valuable feedback on the instrument both in written and oral form.

Based on the feedback from the academics and practitioners, the questionnaire was revised. The process helped identify words, phrases terms, sentences, response categories, and definitions that are ambiguously worded, unknown, or irrelevant to the respondents. The changes that were made included clarifying some of the items and wordings, changing the format of the questionnaire, and re-sequencing the questions.

Based on the above discussion, the study content validity could be reasonably confirmed on both theoretical and practical grounds. The pretest was used for the traditional assessment of validity and comprehension. Additionally, the pre-test was used to determine if the directions for completing the survey were clear as well as assess response and non-deliverable rates. This yielded useful suggestions that improved the content validity of the measurement instrument.

3.5.3 Survey Measurement Instrument

The measures used in this study came mainly from established instruments found in the literature. In addition, the initial qualitative research and pilot study, which were carried out in parallel with the literature search, generated new instruments. Construct and internal validity should result from careful definition of constructs and relationships, as well as the design of the survey instrument and the use of multiple types of respondents and multiple measures for this survey (Yin, 1989). The method was based on procedure for developing multi-item measures of
social constructs (Table 3.3). This process was used to ensure that the final scale was both valid and reliable. The first stage of the procedure entailed specifying the domain of the construct being studied, then exploratory interviews were carried out to generate sample of items. For each construct being studied, this section of the methodology describes the items on the survey that were used to define the construct.

Stage three involves collecting data from a sample survey to enable refinement of the questionnaire scale instruments. Then the survey is formally carried out. Factor analysis is employed in the next stage, analysing survey data to produce a valid, reliable and parsimonious scale. Further, the analysis involves assessing the validity of generalising the results of the sample and the reliability of the scales for use in future research. Reliability is evaluated by calculating Cronbach's alpha for each variable. There follows a detailed discussion of scale measurements for the survey questions.

**Company background and Internet strategies questions:**

Questions 1-5 are concerned with the characteristics of the respondents' banks (e.g. size and type) and the Internet strategies that they employ (e.g. timing of entry, level of usage).

Question 1 is concerned with the type of the bank. As indicated by both academics and practitioners, consumer banks include retail banks, telephone and or Internet-only banks, building societies, and other financial service firms (e.g. Ring and Tigert, 2001; Vishwanath and Mulvin, 2001).
Questions 2 and 3 are related to the size of the bank (see detailed discussion in section 2.4.2). The most widely used measurements are: total assets (Holland and Westwood, 2000; Daniel, 1999), total number of employees (Soh et al., 1992), total equity capital, total revenues (Federal Reserve Bank of Chicago) and until recently number of outlets (CIBC, 1998). In the retail banking sector, the number of customers has also been used as a measurement of bank’s size (from interview, Mr. Cooke from AIB). Daniel (1999) categories UK retail banks into three types in terms of total assets: large banks with total assets in excess of £50 billion, medium banks with total assets over £10 billion but under £50 billion and small banks with total assets below £10 billion. These criteria will be used in the survey design question 2 and the number of employees will be measured in question 3.

Question 4 is about the bank’s Internet strategy and sophistication of Internet usage. The FDIC’s three-level strategy was employed to capture this information (see section 2.4.1; Jayawardhena and Foley, 2000; Parson et al., 1996 quoted in Yakhlef, 2001). Question 5 describes the timing of Internet entry strategy that retail banks adopt. In market entry literature, the timing of entry can be divided into: first mover, early follower and late entry (Hagel et al., 1997; Mols, 2000; Porter, 2001) and not yet using the Internet.

Concept of competitive advantage in retail banking sector questions:

Questions 6-8 are related to the concept of competitive advantage from a manager’s point of view. Question 6 is an open question and tick boxes are used for questions 7 and 8 as shown below. The open-ended question 6 is aimed at collecting as much original information about managers’ perceptions of
competitive advantage as possible. Whereas questions 7 and 8 are concerned with competitive advantage in the retail banking sector, many aspects of these advantages have been discussed in section 2.3.2 (see, for instance: Jap, 1999; Mols, 2001).

Factors that affect retail bank's ability to achieve competitive advantage by using the Internet

Questions 9, 10 and 12 look at manager's perception of the competitive advantage of cost reductions provided by the Internet (Peppard, 2000; Mols, 2000; De Young, 2001; Jayawardhena and Foley, 2000). Questions 13 and 22 are concerned with managers' perception of the competitive advantage of product cross selling through the Internet. Although there are some metric measurements, e.g., the number of products (appropriately defined) per retail customer (DBIC, 2002), the idea is relatively new and not well known or used by retail banking managers. Therefore, managers' perceptions with a five point Likert were used to assess the advantage of cross selling (Engen, 2000; Latimore et al., 2000; Jun and Cai, 2001). Questions 11, 15, 16, 17 and 20 try to explore managers' perceptions of the competitive advantage of service quality improvement through the Internet (Jun and Cai, 2001). This was discussed in detail in section 2.4.3.

Question 14 reflects the competitive advantage that aggregate and/or comparative web sites have brought to the retail banking sector. This issue was raised during the interviews in the pilot study. Questions 18 and 19 are concerned with managers' insights into the competitive advantage of a customer base. A five-point Likert scale was used based on the research conducted by researchers like
Quelch and Klein, 1996; Peppard, 2000; Jayawardhena and Foley, 2000; DeYoung, 2001; Dutta and Biren, 2001; Nath et al., 2001; Clarke, 2001.

Question 21 looks at managers' perception of the competitive advantage of an enhanced company image from the Internet. The purpose is to see whether managers agree with the view that one of the reasons why UK banks have adopted an Internet strategy is to protect or enhance the organisation's reputation for innovation (Daniel and Storey, 1997; Bergstrom, 2000; Clauser, 2001; Riley and Lacoix, 2003).

**Sustainability of competitive advantage**

Questions 23 and 24 are concerned with manager's opinions of the sustainability of the competitive advantage (Day, 1984; Barney, 1991) produced by the Internet in the sector. The duration of this competitive advantage was also discussed in the interviews.

**Barriers to achieving competitive advantage using the Internet**

Question 25 explores the main barriers to achieving competitive advantage using the Internet; the majority of tick box options shown below conform with the existing literature. For example, low barriers to entry (Serwer, 1995; Ghosh, 1998; Brandtweiner, 1998), security issues (Kalakota and Whinston, 1997; Zeithaml et al., 2000; Aladwani, 2001); customers' acceptance and trust (Lee and Turban, 2001; Ridings et al., 2002; Mukherjee and Nath, 2003); and a lack of human communication and interaction (Zott et al., 2000; Harridge-Marc, 2004).
addition, a few issues from the interviews, (e.g. ‘expensive to maintain’ and ‘requires advertisements to promote’) have been included.

**Characteristics of banks and their Internet strategies**

Question 26 elucidates managers’ views of competitive advantage and the timing of Internet entry, while Question 27 examines managers’ views of competitive advantage and the sophistication of Internet usage. Many researchers claim that first movers gain competitive advantage (Dos Santos and Pfeffers, 1995; Lieberman and Montgomery, 1988; Gopalakrishnan et al., 2003) whereas others believe early followers benefit more (e.g. Pennings and Harianto, 1992; Windrum and Birchenhall, 2002). The majority of researchers agree that higher levels of Internet service will bring greater competitive advantage (e.g. Joseph and Stone, 2003).

Questions 28 and 29 look at the relationship between managers’ perceptions of the competitive advantage achieved by using the Internet and firm size (Geyskens et al., 2002). Questions 30, 31 and 32 look at the relationship between managers’ perceptions of the competitive advantage achieved by using the Internet and the type of firm (Ring and Tigert, 2001; Vishwanath and Mulvin, 2001; Gulati and Garino, 2000; Vishwanath and Mulvin, 2001; Porter, 2001).

**Demographic questions**

The demographic section includes information on the managers’ job and their seniority in the firm. The tick box questions shown as below are designed based on the six interviews.
3.5.4 Sample Selection

The sampling frame for the study consisted of the fellowship level members (FCIB) of The Chartered Institute of Bankers. FCIB is indicative of senior professional status in financial services. The Institute of Financial Services (IFS) is the official brand of The Chartered Institute of Bankers (CIB), a registered charity and one of the leading bodies in the UK financial services industry.

The research was targeted at FCIB members for the following reasons:

1) Fellows of the Chartered Institute of Bankers consist primarily of senior bankers in the UK retail banking sector, individuals who play a critical role in strategic decision making.

2) The members are from retail banks, Internet banks and building societies; different financial firms, which mirrors the pattern of banks in the UK.

3) In order to attain a reasonable response rate, it was necessary to target a sample that would be adequate in size and which could be easily accessed.

4) The fellowship members work in different retail banks. The list of fellows is comprehensive and comprises managers from all UK retail banks and most building societies.

Although the IFS showed interest in the study, it was reluctant to provide the names and addresses of its membership due to data protection guidelines. As a result, the CIB’s Fellow’s Directory (http://www.ifslerning.com/institute/fellows-list.pdf), which is available in the public domain, was used in the survey.
Just over 3,500 senior bankers and financial services professionals are fellows of the institute, of which 1,973 exhibited personal details. However, by excluding non-banking professionals the number of banking professionals with personal details reduced to 1,544, being the total questionnaire population.

3.5.5 Data Collection

Dillman’s (2000) “Tailored Design Method” (TDM) was adopted in the design and implementation of the survey questionnaire. TDM is a set of consistent procedures for conducting high-quality surveys with a greatly improved potential for obtaining acceptable response rates (ibid.). Several underlying elements of the TDM are:

1) reducing the costs for respondents - use of email
2) providing rewards for completing the survey – a prize was offered
3) creating respondent trust, - emphasis on security and non-disclosure
4) tailoring the survey to the specific population by optimising available technological options to increase the survey response rate.

The data was collected by means of a questionnaire that was emailed and mailed to respondents, namely, the FCIB fellows (see Table 3.3). This method was selected because the quantitative research goal requires quantifiable data and a large enough number of responses to allow for statistical testing.
Since the results from the first e-mail survey were published in the Public Opinion Quarterly (Kiesler and Sproull, 1986), there has been phenomenal growth in the application of the email survey as a research method (see for example: Schaefer and Dillman, 1998; Weible and Wallace, 1998; McDonald and Adam, 2003).

Researchers have identified numerous benefits of e-mail over postal mail for surveys, particularly in regards to speed and cost efficiency. E-mail provides an easier and more immediate means of response (Flaherty et al., 1998). In some extremes overnight response is achieved (Taylor, 2000). Further, the cost of an e-mail survey has been estimated to be between five per cent and 20 per cent of a paper survey (Sheehan and Hoy, 1999; Weible and Wallace, 1998). E-mail can also provide heightened response quality. Respondents tend to provide longer open-ended responses to e-mail than to other types of surveys (Paolo et al., 2000; McDonald and Adam, 2003), and responses to e-mail surveys tend to be more candid than responses to mail or phone surveys (Bachman et al., 1999). Further, email surveys allow researchers to gain more interaction with respondents.

Table 3.3: Summary of Research Methods

<table>
<thead>
<tr>
<th>1. Email:</th>
<th>2. Postal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- pre-email sent and tested</td>
<td>- paper version of the email survey sent by post as a reminder</td>
</tr>
<tr>
<td>- questionnaire emailed to all respondents</td>
<td>- to Non-email reply respondents only - 2 week after emails sent</td>
</tr>
<tr>
<td>- reply by email</td>
<td>- return in reply paid envelope</td>
</tr>
<tr>
<td>- Interaction with respondents - missing data found</td>
<td></td>
</tr>
</tbody>
</table>
However, there are a number of problematic issues with the email survey method. Firstly there is an increasing concern over security issues over the Internet, particularly in retail banking sector due to rising fraud conducted over the Internet (McDonald and Adam, 2003). Consequently, most retail banks have set up secure firewall systems to reject emails with attachments and/or return emails to unknown senders. Some services even treat survey emails as ‘spam’ emails. As a result, the number of non-deliverable emails in such a survey could be high. Secondly, the retail banking sector in the UK has been over-surveyed: the growth in the amount of survey research being undertaken has resulted in an increase in the number of requests to individuals to complete surveys (Bickart and Schmittlein, 1999). This may lower response rates, given that individuals’ overall attitudes toward the survey industry may be unfavorable, and the aura of ‘uniqueness’ to the participation in the survey process diminishes. In particular, Email and Internet survey have dropped dramatically (McDonald and Adam, 2003).

Firstly, the questionnaire was sent through email to FCIB members. The sheer number of individuals using the medium coupled with the frequency and ease with which they could be contacted suggest that e-mail is a viable survey method. Respondents initially received the survey by email with a covering letter explaining the purpose and importance of the study, assuring response confidentiality and stating that participation was voluntary. The covering letters were personalised and were directly addressed to each FCIB member who had an accessible email. The questionnaire included a four-page word file and the format and layout was
designed in a manner to keep the number of the pages to a minimum and reduce the time needed for completion.

Incentives can improve the results of a self-completion project by enhancing response rates (Jobber and O'Reilly, 1998). The use of incentives has a long history in surveys (Armstrong, 1975; Kanuk and Berenson, 1975; Cox, 1976; Fox et al., 1988; Heberlein and Baumgartner, 1978; Yu and Cooper, 1983; Church, 1993). In such surveys, incentives, along with number of contacts, have consistently been found to increase response rates. However, detailed studies of the magnitude of an incentive and the improvement in response rates were inconclusive (Van Geest et al., 2001). As an incentive for completing the survey, respondents were offered a summary report with the main statistical findings. The first twenty respondents were offered a 'surprise gift' and one respondent chosen at random in the form of a prize draw, was offered a Harrods hamper. These incentives coincide closely with the comprehensive list produced by Jobber and O'Reilly, 1996, namely; a prior telephone call, pre-paid monetary incentives, non-monetary gifts (such as a pen), using stamps on return envelopes, granting anonymity to respondents and following up the initial mailing with a second covering letter and questionnaire.

Respondents were asked to fill in and save the questionnaire before returning it to the researcher by email. To maximise the response rate, those in the sample who did not respond to emails within two weeks received a reminder message via a postal survey, which included a covering letter, an additional copy four-page postal version of the questionnaire, and a pre-paid return envelope. The format and the content of the follow-up cover letter and questionnaire were similar.
to those in the email questionnaire. Follow-up contact has been seen to have positive effects on response rates to postal mail (Comer and Kelly, 1982; Jobber, 1986; Murphy et al., 1991; Yammarino et al., 1991). Kanuk and Berenson (1975) suggest that follow-ups in postal mail studies can increase response rates from eight to 48 per cent, while Sheehan and Hoy (1999) found that a reminder message in an e-mail survey increased response by 25 per cent.

The data were collected between November 2003 and January 2004.

3.5.6 Respondent and Sample Profiles

In the first stage, 1,750 email surveys were sent to chosen FCIB members as mentioned before. 670 of these messages were electronically returned to the researcher because the email address used made the message undeliverable. This amounts to a failure rate of 38.3 per cent.

The reason for the high failure rate was due to a combination of factors:

- Misspellings/incomplete email names
- Respondents changing service providers/addresses
- Respondents giving URL's not emails
- Fictitious emails
- Firewall rejecting file attachments
- Change of jobs

Consequently, 1080 emails were successfully received. Out of those who received emails, 61 completed and usable questionnaires were returned. Mail
reminders were sent out to all members who had a valid email address, but had not replied. 1019 letters were sent out in total. 12 letters were returned undelivered, indicating the addressees could no longer be contacted at this address. It is reasonable to assume a nearly complete delivery rate of survey of 1068, i.e. 1080 minus 12. 92 letters were returned with 90 of which are completed and valid. Therefore a total of 151 (61 + 90) usable responses were received, which indicated a return rate of 14.14 per cent.

The overall response rate obtained from both mail and email was quite reasonable (14.4 per cent), compared with the normal range for mail of a response rate of five per cent to 30 per cent (Anon, 2001; McDermott et al., 2003). Significantly higher levels of first time complete responses (i.e. responses not needing to be returned for questions to be fully completed) were obtained from the mail survey. One full open-ended question was included in the questionnaire. It was about the perception of whether, what type etc competitive advantage could be achieved through the Internet. A large number of extra comments both on the open question and, in general, were received from the surveys completed by email whereas very few were received from the mail survey.

A higher response rate might have been received if the potential respondents considered that they were the appropriate person to address the survey. There were many managers who referred the survey to other managers in the bank, typically the E-commerce manager. There were many emails like "Thanks for sending me this survey; I believe that we can give a better response to it, if someone in our Internet Bank responds. I have passed this on to them ..."
Table 3.4: Survey Respondent Rate by Firms

<table>
<thead>
<tr>
<th>Number of organisations contacted</th>
<th>72</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of organisations replied</td>
<td>65</td>
</tr>
<tr>
<td>Respondent rate</td>
<td>90.27%</td>
</tr>
</tbody>
</table>

This point was shown by the respondent rate as measured in terms of the number of organisations, which replied. Overall, the managers who received the questionnaire were from 72 UK retail banks and building societies and the respondents came from 65 organisations, which meant that the results were drawn from 90.27 per cent of the banks, which were contacted (see Table 3.4).

There is considerable literature underlining the fact that organisations are made up of individuals and that they can only succeed by the contributions of their individual employees, not the organisation as a whole (Norman and Bobrow, 1975). Indeed it is typical that, regardless of the unit of analysis, the units for data collection in survey research are usually individuals. These individual responses are then often aggregated for larger units of analysis such as role, work group, department, or organisation (Pinnsonneault and Kraemer, 1991).

The managers surveyed are the decision makers not the bank itself, or the E-commerce manager (Simon, 1978). Because each separate manager had a different strategy and opinion, the researcher felt justified in assuming that they provided added value in their responses beyond that of a single organisation. This effect was enhanced by the varying backgrounds of the managers surveyed. Also the banks surveyed varied dramatically in size so the concept of one manager from each bank would not have given a balanced or reasonable result. By surveying managers rather than organisations the sample size was increased, because the
number of banking organisations was only 85. This approach fits with the standard survey methodology that the unit of analysis can be anything the researcher decides as long as the unit chosen relates to the questions and hypotheses in the research (Pinnsonneault and Kraemer, 1991).

Table 3.5: Survey Respondents Background- Type of Firm

<table>
<thead>
<tr>
<th>Type of Firm</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Building society</td>
<td>66</td>
<td>43.7%</td>
<td>43.7%</td>
</tr>
<tr>
<td>2) High Street retail bank (&quot;bricks and mortar&quot;)</td>
<td>63</td>
<td>41.7%</td>
<td>85.4%</td>
</tr>
<tr>
<td>4) Other financial services provider</td>
<td>12</td>
<td>7.9%</td>
<td>93.3%</td>
</tr>
<tr>
<td>2) Internet only bank</td>
<td>10</td>
<td>6.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>5) Non financial services provider</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Among all 151 respondents, 41.7 per cent were from high street retail banks, 43.7 percent from building societies, 6.6 per cent from Internet only banks and 7.9 per cent from other financial services provider (see Table 3.5). This reflects the appropriateness and proper targeting of the respondents since the sample represents the roughly 50/50 split by numbers of the population of the IFS between banks and building societies as previously discussed in 3.5.4.

Table 3.6: Survey Firm Sizes: Total Assets

<table>
<thead>
<tr>
<th>Total Assets</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) In excess of £6 billion (&gt; $10 billion)</td>
<td>100</td>
<td>66.2%</td>
<td>66.2%</td>
</tr>
<tr>
<td>2) Over £600 million but under £6 billion ($1b--$10b)</td>
<td>32</td>
<td>21.2%</td>
<td>87.4%</td>
</tr>
<tr>
<td>3) Below £600 million (&lt; $1 billion)</td>
<td>19</td>
<td>12.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

The size of the organisation that respondents work for were categorised by total assets and the number of employees. In terms of total assets, there were 100 respondents from ‘big’ sized banks that have total assets in excess of £6 billion (i.e. $10 billion), which accounted for 66.2 per cent of total respondents (see Table 3.6).
Around 21.2 per cent respondents from 'medium' sized banks with total assets in excess of £600 million but under £6 billion (i.e. $1b - $10b), and 12.6 per cent respondents from 'small' sized banks and building societies with total assets under £600 million (i.e. below $1 billion).

Table 3.7: Survey Firm Sizes: Number of Employees

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Over 1000</td>
<td>104</td>
<td>68.9%</td>
</tr>
<tr>
<td>2) 501-1000</td>
<td>15</td>
<td>9.9%</td>
</tr>
<tr>
<td>3) 250-500</td>
<td>9</td>
<td>6.0%</td>
</tr>
<tr>
<td>4) Under 250</td>
<td>23</td>
<td>15.2%</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Similar result of categories might be achieved if the number of employees as criterion were used to classify the size of the firm. There were 68.9 per cent 'big' banks and building societies that have over 1000 employees. The 'medium' sized banks that have over 250 but under 1000 employees account for 15.9 per cent. The rest 15.2 per cent were 'small' sized banks with less than 250 employees (see Table 3.7).

This approximately represents the population of FCIB but not the industry as a whole, which is skewed towards the larger banks.

Table 3.8: Survey Respondents' Job

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Marketing, Sales and Media</td>
<td>40</td>
</tr>
<tr>
<td>2) IT, banking operation</td>
<td>27</td>
</tr>
<tr>
<td>3) Finance</td>
<td>19</td>
</tr>
<tr>
<td>4) Customer Service</td>
<td>13</td>
</tr>
<tr>
<td>5) General Banking (e.g. credit, lending, loan...)</td>
<td>33</td>
</tr>
<tr>
<td>6) Human Resource</td>
<td>5</td>
</tr>
<tr>
<td>7) Others.</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
</tr>
</tbody>
</table>
Among all respondents, managers from four departments nearly represent 80 per cent of the sample. (See following Table 3.8). 26.5 per cent of managers are from marketing, sales and media department, 21.9 per cent are from general banking department, which includes technical banking like credit department, loan department etc, 17.9 per cent of managers are from IT and banking operation department, and 12.6 per cent are from finance department. This response is appropriate given that the introduction and maintenance of Internet banking is primarily a marketing and media issue but requires product, IT and finance department support.

Table 3.9: Survey Respondents' Seniority

<table>
<thead>
<tr>
<th>Seniority Description</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Senior manager (head office, regional managers)</td>
<td>105</td>
<td>69.5%</td>
</tr>
<tr>
<td>2) Middle manager (divisional, branch/unit managers)</td>
<td>41</td>
<td>27.2%</td>
</tr>
<tr>
<td>3) Junior manager (clerical, operational managers)</td>
<td>4</td>
<td>2.6%</td>
</tr>
<tr>
<td>4) Not at manager level</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

In terms of respondents’ seniority, senior managers, who are at head or regional offices, represent nearly 70 per cent of the respondents (See Table 3.9). The US Comptroller of the Currency, one the US banking sector’s key regulators in its paper on Internet Banking best practice suggests that bank’s technology experts, along with their marketing and operational executives, should contribute to the decision making and planning process (Comptroller of the Currency, 1999). If banks follow this regulators suggestion, the majority of managers who participated in the survey are likely to be decision makers and to make judgments about Internet strategy for their retail banks and/or building societies.
27.2 per cent of managers are middle managers, who are divisional, branch or unit managers. Only 2.6 per cent respondents are at junior manager level, i.e. clerical and/or operational managers, and 0.7 per cent of respondents are at manager level.

3.5.7 Missing Data and Non-Response

Missing data refers to “information not available for a subject (or case) about which other information is available” (Hair et al., 1998:38). Missing data might be caused by the respondent’s refusal to answer one or more questions. In this study, the questionnaire was designed and tested to avoid sensitive issues and all missing data were infrequent and random. There were only two missing cases in the questionnaires received, through email and, in both those cases, the researcher was able to contact the respondent to provide the missing data. There was one missing item of data from the mail survey, but in this case the researcher was not able to contact the respondents. Hair et al. (1998) recommend that in cases where a non-random pattern of missing data is present, the most efficient solution is to delete the case(s) or variable(s) with missing data. Therefore, their response was removed from subsequent analysis.

A common criticism of survey is the possible non-response bias, which may affect the generalisability of the findings to the whole population (Fowler, 1993). Two procedures were used to address this issue: first, we compared the sample data with the population on two known values, type of the bank and size of the bank. Within the study population, 43.7 per cent are building societies and 66.2 per cent
are large banks with assets in excess of £6 billion, which are comparable to the FCIB sample. Secondly, since late respondents are expected to be similar to non respondents (Armstrong and Overton, 1977), we compared early respondents and late respondents on major variables. Early respondents (i.e. those who sent back the questionnaire within 2 weeks) consisted of 75 per cent of the sample. Using t tests, we found no significant differences with respect to their seniority, size of the bank and type of the bank they are from, indicating that non response bias should not pose a serious problem.

3.5.8 Data Analysis

To gain a better understanding of the competitive advantage concept in the retail banking sector, the survey also included an open-ended question. The responses to the question were coded at the word or line/sentence level. Each word and/or line/sentence was either

1) Coded into one of the categories there were pre-determined from the interviews.

2) Coded into a new category that was not pre-determined but had emerged during the survey.

3) Coded into multiple categories.

or

4) Not coded if it was found to be unrelated to the competitive advantage concept in retail banking sector.
Dummy variables were developed to incorporate categorical (non-metric) data (i.e., type of the bank) into the analysis.

The data provided by the questionnaires required further exploration to clarify and validate the findings. The quantitative data collected via the survey was analysed by performing the following statistical tests.

1) A spreadsheet database was set up to collect the data and to enable easier interpretation and visual representation of certain statistics. The data was then entered into the database and sorted to establish patterns and relationships in the responses.

2) A correlation matrix was used to explore relationships among independent, mediator and dependent variables.

3) An exploratory factor analysis was conducted to look into factors that influence competitive advantage gained through the Internet.

4) A bivariate regression was conducted to test the research framework and the hypotheses.

The methods of exploratory factor analysis and bivariate regression used are discussed in the following section.

**Factor analysis**

There are two types of factor analysis; namely exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Hair et al., 1998). Exploratory factor analysis attempts to discover the nature of constructs influencing a set of responses, whereas confirmatory factor analysis tests whether a specific set
constructs is influencing responses in a predictable way. An exploratory analysis may be structure generating, model generating, or hypothesis generating, in contrast, a confirmatory factor analysis may attempt to build a model, which is assumed to be able to describe, explain, or account for the empirical data in terms of relatively few parameters. As we had no such well-specified, a priori restrictions, then we used the exploratory procedure (Fabrigar et al., 1999).

As discussed above, the technique used in this study was exploratory factor analysis and it will for simplicity's sake be referred to as factor analysis in the subsequent discussion. The exploratory analysis had the aim is to explore the field, to discover the main constructs or dimensions (Kline, 1994). Exploratory factor analysis was also employed as the correlation matrix analyses revealed a relatively high degree of interrelationship between the dependent variables in the study. The researcher selected items, which were reliable and had good communalities and they included enough variables so that each common factor was represented by at least three or four variables (Velicer and Fava, 1998).

To further explore this issue, the perceived competitive advantage of the Internet to the retail banks and building societies in this research (i.e. their dependent variables) were subjected to Factor Analysis (FA) using SPSS 12. As discussed in the next section, the correlation matrix (Table 3.10) shows that 44.4 per cent correlation coefficients among the nine dependent variables are of 0.3 and above. This satisfies Pallant's (2001) recommendation for factor analysis, i.e. there are some correlations that exceed 0.30, but not the majority of them. If most correlations are high, then it is likely to have only one construct underlying the observed variables and therefore may not be appropriate for factor analysis. In
addition, prior to performing the Factor Analysis, the suitability of the data for factor analysis was assessed by sample size, the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's Test of Sphericity (Hair et al., 1998; Hays and Hill, 2001). As discussed in the next section, in this study, the Kaiser-Meyer-Olkin value is 0.786, exceeding the recommended value of 0.6 (Kaiser, 1974) and being close to meritorious (see Table 3.11). Also in this study, the significance level for Bartlett's Test of Sphericity is .000, which means that the data are appropriate for factor analysis (see Table 3.12).

**Sample size**

There is little common ground in the literature concerning how large a sample should be. The general recommendation is that the bigger the sample size, the better the result for factor analysis. Guadagnoli and Velicer (1988) found that absolute sample size was more important than functions of sample size in determining stable solutions, and ideally the overall sample size should be in access of 150. Others have suggested a minimum sample size of 100 to 200 observations (Guadagnoli and Velicer, 1988). Some researchers suggest that it is not the overall sample size that is of concern, rather the ratio of subjects to items (Pallant, 2001:153), and they have suggested the ratio of sample size to number of variables as the key criteria. Their recommendations range from 2:1 through to 20:1. Nunnally (1978) recommends a 10 to 1 ratio, in other words he is suggesting that 10 cases for each variable is adequate in most cases. However, interestingly, the sample size requirements advocated by researchers have reduced over the years as more research has been undertaken in this area. According to Hair et al.
(1998:98), ‘as a general rule, the minimum is to have at least five times as many observations as there are variables to be analysed in the factor analysis’.

In this study, the sample size is 151 there are nine dependent variables and, which represents a ratio of 17:1. Both the absolute number of observations in the sample and the ratio of sample size to number of variables satisfy the requirements of factor analysis outlined above. Pallant (2001:156) claims that to be considered suitable for factor analysis the correlation matrix should show at least some correlations with \( r = 0.3 \) or greater. If few correlations above this level are found then factor analysis may not be an appropriate way forward (Tabachnick and Fidell, 1996).

The following correlation matrix (Table 3.10) shows that 44.4 per cent correlation coefficients among the nine dependent variables are of 0.3 and above. This satisfies Pallant’s (2001) recommendation for factor analysis, i.e. there are some correlations that exceed 0.30, but not the majority of them. If most correlations are high, then it is likely to have only one construct underlying the observed variables and therefore may not be appropriate for factor analysis.
### Table 3.10: Correlation Matrix on Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>Cost Reduction Pearson Correlation</th>
<th>Cost Reduction Sig. (2-tailed)</th>
<th>Brand Correlation</th>
<th>Service Quality1 Correlation</th>
<th>Service Quality2 Correlation</th>
<th>Service Quality3 Correlation</th>
<th>Custom Base Correlation</th>
<th>Cross Selling Correlation</th>
<th>Product Range Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.211(**)</td>
<td>0.000</td>
<td>0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Service Quality1</td>
<td>.357(**)</td>
<td>.128</td>
<td>1</td>
<td>-0.368(**)</td>
<td>-0.314(**)</td>
<td>.377(*)</td>
<td>.453(**)</td>
<td>.255(**)</td>
<td>.126</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.118</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td>Service Quality2</td>
<td>.376(**)</td>
<td>.265(**)</td>
<td>0.314(**)</td>
<td>0.426(**)</td>
<td>1</td>
<td>-0.240(**)</td>
<td>0.353(**)</td>
<td>-0.221(**)</td>
<td>-0.107</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.001</td>
<td>0.00</td>
<td>0.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.07</td>
<td>0.00</td>
<td>0.07</td>
</tr>
<tr>
<td>Service Quality3</td>
<td>.352(**)</td>
<td>-0.119</td>
<td>0.377(*)</td>
<td>-0.341(**)</td>
<td>-0.240(**)</td>
<td>1</td>
<td>.353(**)</td>
<td>0.424(**)</td>
<td>0.115</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.146</td>
<td>0.00</td>
<td>0.00</td>
<td>0.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.160</td>
</tr>
<tr>
<td>Customer Base</td>
<td>.343(**)</td>
<td>-0.102</td>
<td>0.453(**)</td>
<td>-0.388(**)</td>
<td>-0.393(**)</td>
<td>.353(**)</td>
<td>1</td>
<td>.235(**)</td>
<td>.063</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.212</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.04</td>
<td>.004</td>
<td>.446</td>
</tr>
<tr>
<td>Cross Selling</td>
<td>.319(**)</td>
<td>-0.088</td>
<td>0.255(**)</td>
<td>-0.177(*)</td>
<td>-0.221(**)</td>
<td>.424(**)</td>
<td>.235(**)</td>
<td>1</td>
<td>.266(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.261</td>
<td>0.002</td>
<td>0.03</td>
<td>0.07</td>
<td>0.00</td>
<td>0.04</td>
<td>.004</td>
<td>.001</td>
</tr>
<tr>
<td>Product Range</td>
<td>.161(*)</td>
<td>.075</td>
<td>0.125</td>
<td>-0.145</td>
<td>-0.107</td>
<td>.115</td>
<td>.063</td>
<td>.266(**)</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.048</td>
<td>.357</td>
<td>0.126</td>
<td>0.075</td>
<td>0.189</td>
<td>0.160</td>
<td>0.446</td>
<td>.001</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

The Kaiser-Meyer-Olkin (KMO) value is a significance test on correlations in the matrix, which gives an indication of the reliability of the relationships between the pairs of correlations in the study. The KMO value of sampling adequacy is a statistic which indicates the proportion of variance in the variables which is common (i.e. which might be caused by underlying factors). It ranges from 0 to 1, reaching 1 when each variable is perfectly predicted without error by the other variables. This measure can be interpreted within the following guidelines: 0.90 or above is marvelous, 0.80 is meritorious, 0.70 is middling, 0.60
is mediocre, 0.50 is miserable and below 0.50 is unacceptable. In general, the adequate sample indicated by Kaiser-Meyer-Olkin value should be 0.6 or above. In this study, the Kaiser-Meyer-Olkin value is 0.786, exceeding the recommended value of 0.6 (Kaiser, 1974) and being close to meritorious (see Table 3.11).

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .786 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 271.318 |
| df | 36 |
| Sig. | .000 |

Bartlett’s Test of Sphericity examines whether a correlation matrix is “not significantly different” from an identity matrix and it should be statistically significant at $p<.05$. It also indicates whether the correlation matrix is an identity matrix, which would indicate that the variables are unrelated. The significance level gives the result of the test. Small values, less than 0.50, indicate that the data do not produce an identity matrix, and hence, are suitable for factor analysis. Larger values indicate that the data produce an identity matrix, and therefore, are not suitable for factor analysis. In this study, the significance level for Bartlett’s Test of Sphericity is .000, which means that the data are appropriate for factor analysis (see Table 3.11). The Chi-Square of 271.318 for Bartlett’s Test of Sphericity (Bartlett, 1954) with df of 36 is significant at $p < 0.001$, and reached statistical significance, supporting the factorability of the correlation matrix.
Hence, the items met the fundamental requirements for factor analysis (Hair et al., 1998).

**Three Step regressions**

According to Hardy and Petrinovich (1976:7):

“Multivariate analysis methods will predominate in the future and will result in drastic changes in the manner in which research workers think about problems and how they design their research. These methods make it possible to ask specific and precise questions of considerable complexity in natural settings. This makes it possible to conduct theoretically significant research and to evaluate the effects of naturally occurring parametric variations in the context in which they normally occur. In this way, the natural correlations among the manifold influences on behavior can be preserved and separate effects of these influences can be studied statistically without causing a typical isolation of either individuals or variables”.

In order to examine the relationship among the dependent, mediator and independent variables in the study, a series of bivariate regression analyses was carried out. To determine whether the Internet strategy was a mediator in the relationship between characteristics of firms and respondents and perceived competitive advantage through the Internet, a three-part hierarchical regression analysis was applied (Baron and Kenny, 1986:1177).

As suggested, three regression equations should satisfy the tests for the linkages within the mediation model to be proven. First, the independent variable (i.e. characteristics of the firm) must affect the mediator (i.e. Internet strategy); second, the independent variable should be shown to affect the dependent variable (i.e. perceived competitive advantage through the Internet) in the second equation; and third, the dependent variable must be influenced by both mediator and independent variable in the third equation. If these conditions all hold in the
predicted direction, the effect of the independent variable on the dependent variable must be less in the third equation than in the second. This follows Baron and Kenny's three-step process of testing mediation, which is widely used in management research (e.g. Siegel and Sisaye, 1997; Luthans and Peterson, 2002; Walumbwa et al., 2004).

Linear regression is useful for analysing questionnaire data because it is able to identify which questions account for the most variance in the user's responses. It enables the determination of the independent contributions of each predictor variable in a model by allowing for partitioning of variance. In other words, how much variance in the criterion variable is accounted for by a specific predictor variable can be determined. Prior to conducting the regression analysis, practical issues were examined, such as the sample size, missing data, normality and outliers among the cases (Tabachnick and Fidell, 1989).

**Sample size:**

The sample size used in regressions has a direct effect on the statistical power of significance testing and the generalisability of the results (Hair et al., 1998). The researcher can determine the sample size needed to detect relationships between independent and dependent variables for certain types of statistical tests and a number of independent variables, given the expected effect size, the \( \alpha \) level, and the power desired (Ferguson and Ketchen, 1999; Hair et al., 1998).
The criterion of the ratio of cases to the sum of independent variables and mediator variables was met (ratio was 30:1, the minimum is 5:1). According to Tabachnick and Fidel (2001: 117), a rule of thumb for testing b coefficients is to have $N \geq 104 + m$, where $m =$ number of independent variables (+ mediator variables). In the research, $m=5$ and $N (151)$ satisfies the minimum requirement of 109 for the regression.

**Multicollinearity**

Bivariate regression analysis was performed in order to identify which of the independent variables (and mediator variables) in the study could best predict each of the dependent variables. If the independent variables are correlated with each other, the coefficients and tests may be misleading. If multicollinearity exists in the model, the coefficients of independent variables may be unstable. To avoid the risks of collinearity and multi-collinearity, correlation matrix analysis was used to test associations between the independent variables and between the mediator variables. The correlation between independent variables size A (total assets) and size B (number of employees) is 0.725, which is a relatively high (higher than 0.7) bivariate correlation (Tabachnic and Fidell, 1996:86). Therefore, the variable ‘size B- number of employees’ was omitted in the bivariate regressions. This was because it was felt that there was no extra information from the number of employees because it was so well correlated with bank size. Bigger banks with larger amounts of assets have greater numbers of employees. All other independent variables and mediator variables were included in the regression equation since they all had high reliability coefficients and relatively low bivariate correlations (less than 0.7).
SPSS results were also produced to obtain collinearity diagnostics using Tolerance and Variance Inflation Factors (VIF). VIF measures 'how much the variance of the estimated regression coefficients are inflated as compared to when the independent variables are not linearly related' (Neter et al., 1989: 408). The VIF values for all the variables were significantly lower than the upper limit of 10, suggesting that there were no multi-collinearity effects.

In addition, tolerance values for each variable were calculated. Tolerance is the proportion of the variability of each independent variable and mediator variables, which is not explained by its linear relationship with other independent variables in the model. Since tolerance is a proportion, its values range from 0 (low) to 1 (high). The tolerance of variable 'size B-number of employees' is low (.392), multiple correlation is high and hence there is a possibility of multicollinearity (Bryman and Cramer, 1997). With all other tolerances between 0.4 and 0.85 for independent and mediator variables, the likelihood of multicollinearity is low. VIF and tolerance are closely related in that VIF is the reciprocal of tolerance (Riding and Haines, 2003). Consequently, except for the variable 'total number of employees', VIFs for all other independent and mediator variables included in the final model (ranging from 1.106 to 2.063) showed that multicollinearity was not a potential problem for the model.

As a result, the independent variable 'size B-number of employees' is excluded from the bivariate regression to avoid multicollinearity.
Outliers, Normality, Linearity, Homoscedasticity, Independence of Residuals

One of the ways that these assumptions can be checked is by inspecting the residuals Scatterplot and the Normal Probability Plot of the regression standardised residuals that were produced as part of the analysis. Outliers are points, which lie far from the main distributions or the main trends of one or more variables. Through the inspection of the standardised scores and normal probability plots, univariate outliers (measures with a z-score in excess of ± 3) were identified and recoded to a value that is one unit larger (or smaller) than the next extreme score in the distribution that was not an outlier (Tabachnick and Fidell, 1989:70). In the case of regression analysis, residual outliers (z values ± 3) were identified by means of residual plots and normal probability plots. In the presence of residual outliers, the regression analysis was rerun after deletion.

Having examined the practical issues, it is appropriate to carry out the above-mentioned three-step regression. First, regressing the mediator on the independent variables; second, regressing the dependent variables on the independent variables; and third, regressing the dependent variable on both independent variable and the mediator. Furthermore, separate coefficients for each equation were estimated and tested. These results are shown in section 5.4.

3.6 SUMMARY AND LIMITATIONS OF THE METHOD

All research methodologies are inherently flawed in some ways (Dennis and Valacich, 2001). The limitation of using one research perspective can be addressed by using an alternative approach that compensates for another’s weaknesses. The limitations are discussed in more detail in section 7.5.
This chapter describes the positivist approach as epistemological position underpinning the study and the rationale of both qualitative and quantitative methods used in the research. A combination of qualitative (semi-structured interviews) and quantitative research (email and postal survey) techniques was used as part of the study. It was felt that, by using both types of research techniques as part of the research, a more holistic and in-depth view of competitive advantage of the Internet in the UK retail banking sector would be obtained and the research model's validity could be better assessed.

The discussion of the methodology was structured as follows: Section 3.2 investigated the meta-theoretical assumption/epistemological stance of the research and introduced the application of simple triangulation methodology that follows a positivist approach. It should be noted that the methodology was designed with the purpose of assessing the validity of a research model that has been developed from existing literature. Section 3.3 overviewed the simple triangulation methods employed in the research. Section 3.4 presented detailed interview procedures; and section 3.5 discussed the issues involved in the survey.
Chapter 4: The Interviews

4.3 INTRODUCTION

In this chapter, the results of the interviews are presented. The interviews were formulated and undertaken in order to extend the findings in the extant literature, and to further confirm and develop the theoretical framework of this study. In section 4.2, a description of the interviews backgrounds is provided and rationale described for the selection of the particular respondents.

As discussed in the previous chapter, the six interviews are the Royal Bank of Scotland (RBS), First Direct, Egg, Clydesdale Bank, Allied Irish Bank (AIB) and the Leeds & Holbeck Building Society. The six cases represent a cross section of the banks operating using Internet banking. They include an Internet only bank, Egg, a bank subsidiary operating a telephone and Internet only service, First Direct, a major bank, RBS, a building society, the Leeds and Holbeck and two medium sized subsidiaries of foreign banks, Clydesdale Bank and AIB.

Section 4.3 looks at the results arising from the six interviews in relation to the competitive advantage gained from utilising the Internet and discusses these issues in relation to the relevant literature presented in Chapter two.

Respondents’ perceptions of competitive advantage are examined, six different foci arose from the cases, most of which fit into the existing literature, for instance, differentiation focus, and ‘cost reduction’. However, some case specific foci, e.g. ‘unique firm characteristics’, have not been emphasised in the competitive advantage literature.
In addition, the six interviews found five other ways to build competitive advantage. Cost reduction was established as a key area enabling the bank to offer highly competitive prices and gain advantage. A good recognised and trusted brand provides benefits. Superior quality of customer service and separately a good customer base of high socio-economic customers were positives. Finally there was the appropriate product range (for the correct customer), which follows from accurate customer segmentation. Each of these areas is discussed in turn and the views of the six respondents outlined and the relationship with the literature reviewed.

A discussion then follows on the interviewee’s approaches to service quality and product offerings. There is a general debate as to whether or not banks have achieved competitive advantage via the Internet and whether this is sustainable. Finally, there is a discussion of the interviewees’ findings in terms of a number of other service quality aspects; including, whether cost reductions accrue from the Internet offering or conversely the Internet actually increases costs. Does it improve customer service, change the quality of a bank’s customer base or affect its brand, or enable enhanced cross selling? In addition, there were findings in relation to organisational culture and background.

The last section of this chapter contains the conclusions.
4.2 RATIONALE FOR INTERVIEWEE SELECTION AND BACKGROUND

In this section, the rationale for choosing the six interviews is discussed in detail. The backgrounds to each of the banks or building societies, which provide the interviews, are outlined, and the arguments for their selection are rehearsed. The development of their organisations' Internet offerings is also discussed, along with the details of the actual interviewees for the six interviews. Each interviewee's background is written up in turn and the reasons for their inclusion are given. Their status as an Internet bank is discussed in detail, and the products and services that they are selling through the Internet are outlined.

They are presented in the following order: the Royal Bank of Scotland (RBS), First Direct, Egg, Clydesdale Bank, Allied Irish Bank (AIB) and the Leeds & Holbeck Building society, in other words in order of decreasing size.

4.2.1 Royal Bank of Scotland

The Royal Bank of Scotland Group, founded in 1727, is one of Europe's leading financial services groups (RBS, 2004). By market capitalisation as at 7th March 2002, it was the second largest bank in the UK and in Europe and ranks fifth in the world (Morais, 2003).

In March 2000, The Royal Bank of Scotland Group completed the acquisition of NatWest in a £21 billion deal that was the largest takeover in British banking history, and the largest hostile banking takeover in Europe to date (Morais, 2003). The enlarged Royal Bank of Scotland Group had a market capitalisation of £49 billion as at 30th July 2004, compared with £19.7 billion immediately after the
takeover of the NatWest. It has more than 22 million UK personal customers, 2,273 UK branches and total assets as at 30 June 2004 of £519 billion. The Group employs over 125,000 staff worldwide (RBS, 2004).

The bank is not only very large but also highly profitable. So for example, during the half year ending 30 June 2004 the Group increased its profit before tax, goodwill amortisation and integration costs by 12 per cent to £3,851 million. Total income was up 20 per cent and all the Group’s divisions increased customer numbers. The cost/income ratio, the key measure of a bank’s efficiency, improved (fell) to a low 40.5 per cent (RBS, 2004).

In addition to the provision of a full range of banking services under The Royal Bank of Scotland and NatWest brands, the Group also includes other organisations well known in global financial circles, including:

- NatWest, a major, long established full service banking brand
- Direct line, one of the UK’s foremost financial service providers by telephone of banking, insurance and other products
- Churchill, one of the UK’s largest general insurance brokers
- Greenwich capital, a major bond and research house
- Lombard, one of the world’s leading asset finance companies
- Tesco personal finance, the UK’s leading supermarket chain’s financial brand
- Citizens Financial in Rhode Island USA, the second largest bank in New England
- Coutts Bank, one of the largest international operators in the private banking sector
- Ulster bank in Northern Ireland
The Royal Bank of Scotland Group enjoys leading positions across a range of different areas in the retail banking sector. In addition to its presence in the UK, the RBS Group has offices in Europe, the US, and Asia.

The interview took place at RBS on the 4th April 2003. Interviewee: Andy Hunter, Head of Strategy & Research, e-Commerce & Internet, the Royal Bank of Scotland. "We have got every type of banking product and service. We can provide all the products and services any customer could require. By using different brands they can attract different types of customer into their different brands and services."

4.2.2 First Direct

First Direct started on the 1st October 1989. First Direct launched its Internet site in March 1998 and launched Internet banking in November 1999. (cf Egg: October 1998). Today, First Direct has a fully integrated multi-channelled service - telephone, Internet and mobile phone banking (First Direct, 2004). To date, it has over one million young, high value customers and has the most satisfied customers in the UK, according to a recent survey (www.firstdirect.co.uk). Inspired by an awareness of consumers deep routed frustration with the traditional banking system, First Direct was created to offer a viable alternative to branch banking. Unique at the time of its founding, it allowed the customer to gain continuous access to their bank and provided outstanding customer service. It maintains a philosophy of providing and anticipating the services that people need, and then offering them, when and in the way that they need them. First Direct is a separate brand from its owner HSBC and gained 80 per cent of its customers from
HSBC's competitors and 20 per cent from HSBC's 'unhappy customers' (First Direct, 2004). In other words, First Direct has been able to successfully retain unhappy HSBC customers.

The bank has a passion for new technology and a zeal for customer satisfaction, which differentiate First Direct from other retail banks. First Direct tells its prospective customers, “We can now transfer your standing orders and direct debits for you—so transferring bank accounts has never been easier” (First Direct, 2004). The bank has won many awards, including in 2005: “Direct brand of the year” 2005, Precision Marketing Magazine and “Best on line bank” 2005, Personal Finance & Savings magazine, Readership Awards (HSBC, 2005).

The interviewee from First Direct is Mr. Darren Sugden, the Director of e-Commerce & Development (one of the only six directors in First Direct). He claims, “I joined Midland Bank, now part of HSBC Group, from University in 1982. During my career I have undertaken a variety of customer facing and Head Office roles in both the consumer and corporate sectors of the bank. Before joining First Direct in 2002, I spent 6 years working in Hong Kong developing HSBC's direct banking services across Asia Pacific. At First Direct I am responsible for e-commerce and knowledge management. My goal is to provide excellence in customer service and innovation through electronic banking, which helps to differentiate First Direct from the rest.”
4.2.3 Egg

Egg, the first online financial services provider in the UK, was launched in October 1998 by leading UK insurance company, Prudential plc. Initial market reaction was highly encouraging, even spectacular. By offering high deposit rates and low credit card interest rates, Egg rapidly gained a substantial customer base – one million by mid-2000 and 1.6 million in April 2001 (FIWP, 2004). Today, Egg is the world’s largest pure online bank - with over 3.2 million customers. Egg went public in June 2000 with an initial market capitalisation of GBP 1.5 billion and it is now 79 per cent owned by Prudential and 21 per cent owned by other shareholders (Egg, 2004).

However, since its flotation, Egg’s market performance has been rather disappointing (McArdle, 2004). Egg offers three main financial service areas - banking, investments, and insurance. In November 2002, Egg launched a similar service offering in France with the ultimate goal or objective of developing into an international company.

The interview with David Rodney, Head of Marketing Communications took place on the 3rd April 2003. He emphasised that he considered that Egg had developed low cost systems, better products and customer service. He also felt that they understand and segment customers better than their rivals and provide the right service.
4.2.4 Clydesdale Bank

The Clydesdale Bank has a relatively long history. It started on the 7th May 1838 as the Clydesdale Banking Company with its head office in Glasgow and a single branch in Edinburgh. Throughout its entire history, Clydesdale’s fortunes have been closely linked with those traders, industrialists and merchants in Scotland. From the heyday of the cotton trade, through the development and most recently the demise of the steel industry, the great era of shipbuilding on the River Clyde and elsewhere and the rich agricultural history of Scotland, Clydesdale has been closely involved in all of these activities and many more.

By a series of mergers and acquisitions, the bank has grown from its modest beginnings as a local Glasgow based bank to being one of the major Scottish clearing banks. In October 1987, the Clydesdale Bank was acquired by National Australia Bank Group, which is based in Melbourne, and Clydesdale Bank is now a member of this major international banking group. It now has 274 branches across Scotland, in London and the North of England (Clydesdale, 2004).

Clydesdale opened its telephone-banking center in 1997 and it started Internet banking in April 2003 (Clydesdale, 2004). Clydesdale Bank has outperformed its competitors in Scotland and has secured the title of the UK’s most improved bank for a second time, and achieved a top three placing in Britain's leading survey into how small businesses view their banks (NUBS, 2005).

The interview with Gavin Wilson, Head of Internet Channel took place on 10th March 2003, at Clydesdale Bank, National Australia Group Europe. He emphasised that Clydesdale Bank had good products for targeted customers,
provided by a recognised brand and offered a very good customer service. He expected a short period of advantage from the Internet banking offering with the reduced cost from the Internet providing excellent products.

4.2.5 Allied Irish Bank

Allied Irish Banks (abbr. AIB) was formed in 1966, bringing together three distinctive Irish banking traditions: - the Provincial Bank, founded in 1825, which pioneered branch banking in Ireland, the Royal Bank, established in 1836, which was famous for its mercantile links, and the Munster and Leinster, formed in 1885, which was the largest of the three banks with the most extensive branch network (AIB, 2004).

Over the decades, with investments across the world, AIB has become an increasingly, dynamic and successful international bank. In 1966, AIB’s aggregate assets were €323.8 million – as at December 2003, the AIB Group had assets of almost €81 billion. Its major innovations and milestones have included: a branch network in Britain in the 1970s, investments in the USA in the 1980s e.g. First Maryland Bancorp, co-founded First Trust Bank in 1991, investments in WBK Poland in 1990s, merging to create Bank Zachodni SA Poland in 2001, and merging All First with M&T Bank Corporation in 2003 (AIB, 2004).

At Allied Irish Bank, the Great Britain division (GB) has a natural fit with its premium business services; it provides a full range of personal banking services for business people and professionals. Allied Irish Bank (GB) was voted Britain’s
Best Business Bank 2003, ahead of the ‘Big Four’ and other UK banks, for the fifth time in succession.

The interview with Michael Cooke, Head of Property Finance took place on the 11th March 2003, at Allied Irish Banks plc. He emphasised that Allied Irish Banks plc. had a good product, an excellent brand, low costs, effective selling methods, multi-channel selling capabilities and a very good customer base. The Internet enables them to reach out to less accessible customers.

4.2.6 Leeds and Holbeck Building Society

Leeds & Holbeck Building society has assets of nearly £6 billion, making it the UK’s 8th largest Building Society (BSA, 2005). Leeds & Holbeck is owned by its members, in other words it is a mutual – and it intends to remain so. Its commitment to the principle of mutuality can be traced back to 1875. It continues to demonstrate the benefits of independent mutuality by offering high savings rates, low mortgage rates, and by putting members’ interests first. Leeds and Holbeck now offers an extensive range of mortgage and investment products. The Society is helping approximately 60,000 individuals, couples and families to buy a home, and has 560,000 investors. 50 per cent of its branches are based in Leeds and Yorkshire and the rest are spread out nationally. Today, Leeds & Holbeck has a full Internet banking service and is still expanding its online product range (Leeds and Holbeck web site, 2004).

This representative building society is an important sample of a building society, as the survey as a whole includes building societies.
The interview with Tony Burdin, Head of Marketing and PR at the Leeds & Holbeck Building Society, took place on 10th March 2003. Mr. Burdin has been working for Leeds and Holbeck for 16 years. He emphasised that their multi-channel distribution systems and lower costs arising partly from their mutual status, enables them to offer highly competitive pricing while giving their customers the benefits of a high quality service.

4.3 COMPETITIVE ADVANTAGE AND THE INTERNET

In this section, the views of the six interviews are discussed in relation to the competitive advantage gained from utilising the Internet. First respondents' views about the differentiation they achieve with their Internet offering are outlined, next the benefits to customers that the banks offering can bring, and finally, any accompanying competitive advantages are examined. The changes in competitive position made possible and enhancement of unique firm aspects are also then explored. The section continues with a discussion of the respondents approaches to service quality and product offerings, which leads into a general discussion as to whether or not banks have achieved competitive advantage via the Internet and whether this is sustainable. Finally, the respondents discuss a number of other service quality aspects including, whether there are cost reductions using the Internet offering, if the Internet actually increases costs, improves customer service, changes the quality of their customer base or affects their brand, and enables enhanced cross selling. There are other factors also briefly considered, for example, organisational culture and background.
4.3.1 Concept of Competitive Advantage

Managers from different banks hold contrasting views, in relation to the perception of what achieves competitive advantage through the Internet. Factors that managers from the interviews perceive as achieving competitive advantage include ‘differentiation focus’, ‘customer focus’, ‘competition focus’, ‘unique firm characteristics’, and ‘cost reduction’. However, in general terms the elements of competitive advantage gained by the utilisation of the Internet for retail banking can be split into differentiation, customer and competition focus and unique firm characteristics as summarised in the literature review, section 2.4.2.

Differentiation Focus

The RBS respondent emphasises a focus on differentiation. The RBS respondent perceives competitive advantage as ‘being different’ to competitors. They attempt to gain advantage from this differentiation and use their multitude of brands, and therefore products and services, to continually offer differentiation somewhere in their portfolio. In Porter’s (1985) generic strategies, a differentiation focus strategy is an important source of achieving competitive advantage. The differentiation strategy involves creating a product and/or services that are perceived to be unique (Miles and Snow, 1978; Mintzberg, 1988), and competitors cannot imitate (Grant, 1991; Porter, 1985). By building these differentiated pricing structures, they hope to gain competitive advantage. Finally, they can use other means to endeavor to be different with unusual marketing approaches or means. Their competitive advantage arises from their “multi brand, multi-channel strategy, as they believe they can get more customers from their attractive target
markets using a multi-brand approach than they can with a single monolithic brand approach” (Sullivan, 2004). This interview finding is interesting but probably not useful for most other banks, which lack the plethora of brands of RBS and its economies of scale.

Arguably one of the key issues in relation to building a successful differentiated Internet or non-Internet banking operation is building customer trust. A strong, trusted brand could provide considerable support in this regard. Brand does build sustainable competitive advantage, as it is difficult to rapidly build brand trust and recognition even with considerable investment.

The six interviewed banks when they started their Internet operations had quite different levels of brand awareness and trust. At one extreme was Egg, which was a pure start up (albeit supported by the Prudential), at the other was Royal Bank of Scotland (RBS), which has a tremendous historical collection of recognised and trusted brands (Mintel, 2001). First Direct, like Egg, was also almost a start up at inception, although it was building on a recognised and trusted brand in the telephone banking arena and had the support of Midland Bank/HSBC. Clydesdale Bank and the Leeds & Holbeck Building society had recognised and trusted brands in their areas of geographic coverage. Allied Irish Bank (AIB) was recognised and trusted in Ireland, but far less so in the UK.

It was apparent that the Internet operations of the Banks could provide brand support, both in general, and for their non-Internet operations. This subject of the importance of brands and brand differentiation was discussed in more detail, previously in section 4.3.5.
In addition, another interview finding was that superior customer service quality can build differentiated competitive advantage, but in the longer term it is difficult to create sustainable competitive advantage because competitors can always invest to improve their service offering. There is a lengthy discussion below about service quality in the section entitled, “A comparison of various interview approaches to service quality and product offerings”.

Finally Banks can differentiate by emphasising high socio-demographic customers and therefore build a sustainable competitive advantage due to the time and investment needed to successfully build such customer bases. It is arguably more difficult to build a high socio-demographic customer base as all banks target these customers due to their inherent profitability (Osipow, 2004).

This echoes Grant (1991) and Porter (1985)’s view, that only unique differentiation strategies those are difficult to imitate, will bring firms competitive advantage.

Further, this confirms that scarce resources lead to competitive advantage from a resource based view. According to Barney (1991), a firm’s resource position can lead to sustained competitive advantage only if it enables the firm to create value, if the resources are rare and hard to imitate, and if the advantage is not subject to substitution. In the interviews, the RBS’s brand differentiation is difficult to copy, however, service quality differentiation and customer differentiation is easier for competitors to imitate and therefore more difficult to make a source of sustainable competitive advantage.
Customer Focus

A number of respondents concentrated on gaining sustainable competitive advantage by emphasising customers. Respondents perceived that competitive advantage could be achieved by emphasising the provision to their customers of a quality service.

The First Direct respondent explained that his organisation strives for perceived competitive advantage by achieving very high customer satisfaction with their overall service, by investing in systems, training, staff and customer centered marketing. The organisation considers that it has the highest customer satisfaction of all competing Internet enabled banks and building societies by actively trying to continually keep a step ahead of consumer expectations and demands. So it invests in systems, training, staff and customer centered marketing. There was a constant emphasis on a strict customer focus.

The Clydesdale respondent had a more defined and narrow customer focus, believing that competitive advantage could be achieved by concentrating on delivering the right product to the right customer with the right service.

The Egg respondent has a simple approach to customer focus. Egg aims to offer basic products, which are easy and simple to access. It also considers that their customer focus needs to be accompanied by a competitive rate and product offering, which provides high customer value and therefore satisfaction.

The interviews also suggested that high quality marketing data and customer segmentation can also build competitive advantage by enabling the bank to tailor its offering of products and services to particular customer needs. While in
theory, any bank could obtain the data; it is difficult to assemble the appropriate marketing staff and systems, so this area does create barriers to entry and therefore sustainable competitive advantage.

Customer focus falls into two areas, providing a high quality customer service and segmenting customers. Both strategies are designed to achieve competitive advantage. They will be discussed separately, beginning with the provision of high quality customer service.

Nearly all of the interviewed managers agreed that the Internet has enhanced customer quality by providing customers with banking products and services at their convenience and 24/7. Customers have more choice and are able to choose what time to bank, where to bank and how they want to bank.

This corresponds with the relationship-based view discussed in 2.2.4, which proposes that strong customer relationships are one factor creating competitive advantage.

First Direct’s respondent perceived that the Internet has provided much more interaction for customers than they have through a telephone service. Also, because the unit of cost through the Internet has been reduced, First Direct is able to invest in technology to provide a multi service delivery channel and improve its service quality thereby continuing with a virtuous circle of competitive advantage.

Like the First Direct respondent, the Egg interviewee believed that the Internet has improved service quality. For example, by utilising the latest Internet technology, Egg is able to track customers’ behavior and understand customer attitudes to enable Egg to provide the right service targeted for them. In the
Alternative Views of Competitive Advantage section, 2.2.4. service quality is recognised as being of key strategic value in the financial service sector (Devlin, 1995). This is extended to e-business by many authors including (Cox and Dale, 2001) and some believe this is the key to long term advantage in the digital age (Berst, 1990). The benefits of quality service listed in the literature include: 'satisfied and retained customers, opportunities for cross-selling; attraction of new customers; development of customer relationships, increased sales and market shares; enhanced corporate image; reduced costs and increased profit margins and business performance' which correspond closely with those claimed above by the interview respondents (Lewis et al., 1994). Stewart (1998) looks at the 'complaint rate' and the 'exit rate' as possible measurements of customer service. Wisner and Corney (2001) propose that 'customer feedback' is a crucial factor in the evaluation of the quality of customer service.

Service quality failures are very important. It appears that winning back customers following a bad web site experience is difficult (Greengard, 2000).

However, it can be argued that the Internet has reduced service quality by offering less human interaction. Clydesdale’s respondent perceived that the Internet has reduced service quality in their particular bank, due to the inherent lack of human interaction it produces. There have been many studies and reports about the effects of the lack of human interaction in using the Internet, focusing on older people (Sourbati, 2004), on wealthy banking customers (McGuinn, 2002) and in general (Kapoulas et al., 2004).
One issue, Internet security has been cited as a factor reducing customer service quality. Internet banking security is a key customer desire and an important issue. It was discussed previously and again in some detail below.

A number of respondents suggested that service quality could be improved by providing customers with other related products. Cross-selling other non-banking products can be a win-win situation for both the bank and customers. The bank gains other revenues and provides a better service, thereby hoping to increase customer loyalty, while the customer has easy access to a number of products. Although many consumers will consider their bank for additional deposit products, few will turn to their bank for credit, investment, or insurance products. But not all banks' cross-sell opportunities are created equal (Selvin, 2005).

The other area of customer focus is the segmentation of customers to achieve competitive advantage.

Although a number of authors in the literature support this strategy, for example, “A high value customer base is very important for giving a bank competitive advantage” (SAP, 2005). “Most retail banks rely for their profits on a very small number of well-off clients” (Deloitte Consulting, 1998), and a number of Internet banks follow it, it does not form part of the academic competitive advantage literature, which appears to generally ignore the benefits of segmentation.

Illustrating this segmentation, compared with its parent company, HSBC, First Direct has a higher value customer base. The First Direct customer base consists mainly of middle-aged people, aged 25-45, from the UK mainland. Egg’s
average customers have higher pay (over £30,000) than the average British citizen’s income. In addition, its customers are younger (mostly aged from 25 to 45) with higher repayment ratio records than the average banking customer. Also the majority of their customers are in the AB, C1 Socio-economic groups. Its respondent confirmed that it has employed advanced technology to understand its customer segmentation. The information that it gains from this provides it with a better understanding of its customers. From this better understanding it can design and promote better customer tailored products than its “brick and mortar” competitors who cannot easily undertake and react to this type of segmentation. The RBS respondent confirmed that most customers using its Internet functions are younger and better educated. However, many commentators in the literature believe this generation gap will disappear. For example, John Harrison, partner with Deloitte Consulting, predicts that the generational gap between computer-savvy 30-somethings and the rest of the population will soon disappear (Deloitte Consulting, 1998).

All the respondents were convinced that it was becoming more and more difficult to attract high value customers. This is partly due to the obvious income/spending benefits of having higher socio-economic customers. As an illustration, at a typical retail bank about 20 per cent of its customers generate nearly all the profit, effectively subsidising poorer account holders (Deloitte Consulting, 1998).

By way of complete contrast, Clydesdale, because of the difficulty of attracting high value customers, targets primarily the lower socio-economic groups like BC and DD. Although there is a lot of literature on very poor banking clients
and the use of credit unions etc. (for example, Stack and Thys, 2000; Metcalf and Benson, 2000), there is little on the value of lower socio-economic groups as customers.

**Competition Focus**

Alternatively banks can try to gain competitive advantage by concentrating on the services, products and marketing of rival internet banks and trying to compete directly with them, either against discrete aspects of the services or products, or more generally. The major issue about trying to gain sustainable competitive advantage by concentrating on the opposition is the difficulty in sustaining the advantage as the rival bank responds to the competitive threat with service or product improvements. AIB made this point and emphasised that they aimed to gain an edge over competitors that will have direct business benefits, and that crucially is not easy to replicate and therefore neutralise.

The literature on game theory in business is extensive and corroborates the respondents of the interviews view that a successful strategy cannot just depend on one firm’s position in an industry, its capabilities, activities, or other factors. It is effected by how others react to the firm’s moves, and how others think the firm will react to theirs. If a firm understands the game, it can take actions to change the rules or players of the game in its favour. Brandenburger and Nalebuff (1995) offered examples in the literature of this.

The Leeds and Holbeck’s respondent believed that to be slightly ahead of the competition was a key objective to obtain competitive advantage. Banks can try to gain competitive advantage by concentrating on the services, products and
marketing of rival Internet banks and trying to compete directly with them, either against discrete aspects of the services or products, or more generally.

**Unique Firm Characteristics**

Sustainable competitive advantage can be created by unique firm characteristics, which cannot by matched by most or all competitors. The value of this competitive advantage depends on the actual or perceived value of the characteristics to the bank or building society’s customers and the marketing effort put into promoting the advantage.

Building societies have a unique firm characteristic, their mutual status. In theory as there are no shareholders requiring dividends from their investment in the building society, the society can put its entire surplus into increasing the benefits it provides to its customers. This value can be in the form of better pricing or service, or both. Leeds & Holbeck put a lot of emphasis on their mutual status and the benefits they believe that accrue from it. They believe that it provides significant customer differentiation. They insist that their mutual positioning can offer a better service at a more competitive price than their competitors can produce because there are no shareholders demanding a return.

Understandably this is neglected in the literature because this is entirely case based and highly specific and therefore less amenable to extensive academic study. Logically it could be supposed that because these characteristics are difficult to copy (for example to switch from being a PLC to a mutual status), they do create sustained competitive advantage.
Another possible way to build competitive advantage - Cost reduction

Cost reduction, the Porter generic route, which enables the bank to offer products at competitive prices, can also build competitive advantage. A considerable number of authors agree that Internet customers are naturally price-sensitive and becoming more so. “Mainstream Internet consumers are more price-sensitive, lower-income, and less technology-optimistic than early adopters,” (Kolko, 2003). He (ibid.) expects the importance of price to become more pronounced over the next several years. This is all very much in line with Porter who refers to cost as a source of competitive advantage, which is similar to Hambrick’s (1983) and Dess and Davis’s (1984) cost leadership strategies. Cost leadership strategy in the literature also emphasises efficiency. By producing high volumes of standardised products, the firm hopes to take advantage of economies of scale, experience curve effects (Ghemawat, 1986) and proprietary learning (Porter, 1985). Cost advantages may be obtained by first mover advantages, cost efficiencies and lower transaction costs or established relationships with customers, suppliers and partners (Spulber, 2003). It is likely that given the time to re-engineer systems etc in Internet banking, this advantage may be sustained, see below.

Thus the literature supports the view that a continuous program of cost reduction will enable the bank to offer competitive pricing on an on-going basis thus generating some competitive advantage. However this strategy requires a
constant commitment to cost reduction to be able to sustain price competitiveness on an on-going basis.

In contrast, it appears that the amount of cost reduction required to make a difference to competitive advantage is very large. In complete disagreement with Porter and other authors’ views above, Clydesdale’s respondent considered core-banking services to be basically utilitarian and therefore their demand elasticity is low. He therefore perceives little, if any, competitive advantage from cost reductions. He suggests that in the deposit product area even a difference of one percent in the deposit rate does not represent a meaningful amount for the average depositor. The perceived costs and risks of switching seem to outweigh the potential cost savings and the higher rates are not significant enough to compensate for the risks and costs. Thus, the Clydesdale experience is that the proportion of customers willing spontaneously to switch banks because of lower charges or higher rates on deposits is comparatively small.

Interestingly this reduces the potential benefit from continuous cost reductions, but in addition, creates a high barrier to entry to any newcomer, who needs to spend considerable amounts of money on promotion and exceptional rates for prospective customers to build a customer base for the bank.

**Have retail banks achieved competitive advantage by using the Internet?**

Mirroring the literature, the respondents in the interviews had radically different ideas about whether, by what means and to what extent, their organisation has gained competitive advantage by using the Internet.
For example, the building society, Leeds & Holbeck, feels that its competitive advantage from the Internet is from more efficient product and service creation and the creation of real multi-channel distribution. This matches the literature, which for example, cites the lower cost of the Internet than other service delivery channels (Pant and Hsu, 1995; Peppard, 2000; Mols, 2000; De Young, 2001). All the participants had different ideas about whether, by what means and to what extent, their organisation has gained competitive advantage by using the Internet.

In contrast, Mr. Wilson of Clydesdale said, “It is difficult to say.” He said, “Unless you have a competitive product offering, you will not obtain any competitive advantage.” He felt that a necessary condition was that a particular product or service competitive edge existed already. This supports Coltman et al. (2001) who view the Internet business revolution as a myth. Other authors repeat the same theme; “Established banks may struggle to make money out of their Internet banking ventures because customers lured online by low cost incentives will refuse to pay full price in the future, leading experts have warned.” says Sylvia Pennington, in Informatics (vnunet.com, 11 Oct 1999). In the same article, European Internet analyst at Robertson Stephens, Derek Brown, is quoted as saying “organisations such as Halifax and Prudential risked creating a long term problem for themselves if they relied on loss making products to attract customers”. “Bricks and mortar financial providers could find their real life assets such as high street branches and infrastructures a noose around their necks in cyberspace,” Brown said. “They are going to be challenged to make money out of Internet services. By contrast, a virtual bank could operate with costs that were less than a
third of the industry standard, making it more viable to offer reduced product prices. But while quick returns may not be forthcoming, financial institutions need to look to the long term” (ibid.).

These sentiments from the 1999 Informatics report have been echoed and expanded in the 2004 Alliance and Leicester finance survey, which was published on the 12th November 2004. It predicts a much more financially aware UK public with higher incomes and greater savings over the next 20 years. Both are predicted to virtually double over the next 20 years to £50,000 per annum for average incomes and £22,000 for average savings. This increase in wealth and income will, it predicts, be accompanied by an increase in sophistication in the use of Internet Banking.

In summary, Chris Rhodes, interprets his survey, saying that the Internet will cease in the long term to be a provider of competitive advantage and become a source of margin pressure with weaker banks being penalised by customers’ ability to move their money to the highest rate deposit and lowest cost loan provider. However this is not how it has turned out in the US with Wells Fargo claiming that their online banking customers generate 50 per cent more revenue than the bank’s average, hold 20 per cent higher balances and use 50 per cent more products; at the same time, their attrition is 50 per cent of the bank rate and their servicing costs are, on average, 14 per cent lower once online (Akermanns, 2000).

Mr. Cooke from AIB responded to the survey with a much shorter-term view than the surveys discussed above. According to this respondent, the Internet has definitely provided AIB with a significant competitive advantage. His primary
reason for believing this was that he contended that the Internet provides extended “reach”. This is one of the three dimensions from Evans and Wurster (1999), the others being richness and affiliation. The Leeds and Holbeck cites “reach” as a benefit which is especially important for them with their regional rather than national footprint.

Thus the Internet provides a conduit, which will enable AIB to reach more of their target customer groups, young and/or high-income customers. AIB has deliberately tried to build a higher value portfolio customer base. This has obvious advantages in terms of deposit and loan size, although disadvantages in terms of financial sophistication. Therefore AIB needs a full, competitive service, which has to include multi-channel, rapid, easy, ubiquitous access to savings and current account details and information. The respondent believes that the Internet has made their product offering more attractive. That is, there is now more flexibility for customers and quicker, easier transactions.

“Today the way in which banks and financial institutions create value for their customers is becoming much more complex as customers themselves become more financially sophisticated and demand more advanced products”, claimed Perera (2005). Therefore AIB needs a full, competitive service, which has to include multi-channel, rapid, easy, ubiquitous access to savings and current account details and information. The respondent believes that the Internet has made their product offering more attractive, with more flexibility for customers and quicker, easier transactions. All this reflects the literature.
There is more divergence when it comes to the issue of human interactions and the Internet. “An advantage of opening a bank account in person is that you can ask the teller all of your questions and get immediate answers (as opposed to waiting two business days to get an e-mail response). Because you can sign all the papers on the spot, the process of opening an account is also speedier in person”, (Soyouwanna, 2000). Hoffman (2000) claims that the Internet may “radically transform the way individuals go about conducting their business with each other, but also the very essence of what it means to be a human being in society”. If the surveys are correct, the proportions using the post, call center or Internet direct should increase steadily over time. It could be argued more rapidly for AIB’s younger and better-educated customer base, than for Leeds and Holbeck more heterogeneous customers. This fits with surveys like the Northern Ireland General Consumer Council for Northern Ireland survey by which found that in social economic groups AB 45 per cent had bought online, whereas for group C, only 30 per cent had (GCCNI, 2004).

For RBS, the situation is more complicated as it has many separate brands. This is discussed more fully in Chapter 4 in section 4.2.1. Each brand has achieved different degrees of competitive advantage for different reasons. In some cases this involves targeting a different customer group, thereby adding a further complication. The Internet has served as an additional service delivery channel. It is too early to assess with any degree of confidence, whether the Internet has provided RBS overall with competitive advantage. But so far, Direct Line and Tesco Personal finance, which both make extensive use of the Internet in their offerings, could be argued to have built genuine breadth and depth in their Internet
offering (Makkar, 2004; Soifer, 2005; uSwitch, 2005). Tesco Personal finance put
a wide range of products on their web site, including: Loans, Credit card, Savings,
ISA, Mortgages, Life insurance, Motor insurance, Home insurance, Pet insurance,
Travel insurance and Travel money. Some of the products are more specialists,
like pet insurance and travel money. In addition Tesco have developed some of
their traditional products with an Internet flavour to create competitive advantage,
for example, their credit card offers the Tesco Internet Guarantee which covers the
user explicitly against fraudulent transactions, when using the card on the Internet.
Tesco also uses its website to offer other providers’ mortgages and other products,
taking a commission. Direct Line specialises in insurance and personal loans on
its web site, which leverages its insurance brand, which has been built up over
many decades.

One successful example of this idea in practice is provided by Egg. Egg
was launched with a very competitive offering at the time of 7.5 per cent interest
for its saving accounts. At the time of its launch it invested in national media
coverage for its advertisements promoting the highly competitive product. As a
result of this campaign, consumers have continued to have the perception that
Egg’s products are more attractive, cost effective and better value for money than
those of its competitors. Egg’s respondent insisted that the Internet has provided
Egg with competitive advantage in the retail-banking sector. But for most “brick
and mortar” banks, offering Internet delivery channels means migrating their
current customers instead of attracting new ones.

Moreover, migrating customers from branches and telephone banking to
using an Internet channel could be a challenge for “bricks and mortar” banks,
because customers might be attracted by other competitive offerings through more transparent Internet aggregate web sites, such as Money supermarket. The “bricks and mortar” banks have the disadvantage of the high cost of their branch network, so depressing their ability to offer competitively priced products.

“Established banks may struggle to make money out of their Internet banking ventures because customers lured online by low cost incentives will refuse to pay full price in the future, leading experts have warned”, said Sylvia Pennington (1999). In the same article, European Internet analyst at Robertson Stephens, Derek Brown, is quoted as saying “organisations such as Halifax and Prudential risked creating a long term problem for themselves if they relied on loss making products to attract customers”.

Quoting their survey results, Chris Rhodes, managing director of the Retail Bank at Alliance & Leicester, said: “Higher incomes will lead to larger balances in both bank accounts and savings accounts and as such we will be less prepared to put up with poor deals. Coupled with near universal Internet access, we will be able to search out better offers much more easily. Against this backdrop, the cost of supporting a large branch network will become a hindrance rather than an advantage as it makes it more difficult for larger banks to offer better value products. The result could be a significant exodus from uncompetitive providers, changing the face of the banking market, as we know it today.”

Is it the competitive advantage gained sustainable?

Echoing the above and the predictions of the analysts, almost all of the interviewees agreed that the advantages that the Internet brings to the retail banking
sector are temporary and that the way to sustain competitive advantage was to “stay ahead of the game” continuously. Therefore characteristics of Internet based retail banking are not likely to build sustained competitive advantage. This conclusion is in line with the literature. Again quoting from Porter and Grant, they said; “Sustainable differentiation advantages include a unique activity or product valued by customers and that customers perceive to be better than or different from the product of the competition that competitors could not easily imitate” (Grant, 1991; Porter, 1985).

To be really effective, the advantage must be, valuable, rare and inimitable (Creotec, 2005). Examples of company characteristics that in theory might constitute a sustainable competitive advantage include:

- customer focus
- superior product quality
- extensive distribution contracts
- accumulated brand equity and positive company reputation
- low cost production techniques
- patents and copyrights
- government protected monopoly
- superior employees and management team

Translating the above general statement into what respondents had to say, sustainable competitive advantage only can be achieved by a unique proposition that competitors find difficult or preferably extremely difficult to fully replicate. Equally important the proposition needs to be able to be effectively adapted to the changing and developing market place.
If possible the respondents aimed to be “ahead of the game” continuously. Given that all agreed that retail banking is a highly competitive sector, a retail bank might only retain competitive advantage with a value, distribution, product and/or service proposition for a short period of the order of two to five years.

This list of potential sustainable competitive advantage characteristics is very long. However there are some commentators that claim that in a fast changing competitive world, none of these advantages can be sustained in the long run. They claim that the only truly sustainable competitive advantage is to build an organisation that is so alert and so agile that it will always be able to find an advantage, no matter what changes occur (Creotec, 2005).

4.3.2 Cost Reduction

From the results of the interviews, it appears that all respondents believe that the Internet provides competitive advantage by cost reduction in line with the Porter generic strategy.

In discussions of the Internet impact on the financial services sector, the emphasis has often been placed on the direct cost-saving effects of using the Internet to provide transaction services. These potential cost savings are indeed significant and in the long term may lead to significant creation of value (Clemons and Hitt, 2000). Technology is the driving force, online and telephone banking cuts costs; better interest rate deals are the result (Deloitte Consulting, 1998).

Mr. Sugden of First Direct describes one way this might happen. “The Internet has definitely reduced cost and provided competitive advantage for First Direct.” he claimed. He maintained that 50 per cent of the First Direct customer
base uses the Internet and 25 per cent use the mobile banking service for both transactions and statements. This has significantly reduced the cost for the First Direct call center. In short, the Internet has reduced the operational costs for First Direct in a tangible and measurable way. While cost was regarded as important, it was, as discussed above, not the main driver leading to the establishment of First Direct. But, the Internet has reduced unit transaction costs.

It is interesting to note, however, that the literature supports the idea that the cost reductions are not automatic, “However, there also substantial barriers to realising much of this value” (Clemons and Hitt, 2000). It has neglected to investigate the required investment in infrastructure, maintenance and advertisements in different media. It is however clear that overall the Internet is a cheaper service delivery channel (Cline, 1999; KCSL, 2001).

Interestingly the Egg respondent produced a unique formulation of the cost reduction issue. The Egg respondent proposed a model of the Internet providing lower cost, which he proposed should and would be translated into a better set of products for their customer. In other words they were giving away all, or virtually all, the potential margin improvement from the cost benefits of Internet banking in favour of a more competitive product set. Their business model was predicated on low cost systems leading to better (value) products, leading to better customer service, followed by enhanced customer understanding and segmentation. Therefore they aimed to build competitive advantage out of cost reductions. However it could be argued that this model does not provide a sustainable competitive advantage. As discussed above, this model may be replicated. However for “bricks and mortar” banks this would be more difficult to implement.
because of the cost drag of their branch networks. As a result, much of the innovation in the use of the Internet in retail banking has been in increasing convenience and availability of banking services and attempts to reduce costs by offloading transactional activity from high-cost bank branches to other channels (McQuivey et al., 1998).

All respondents contended that “lower cost” and therefore “competitive pricing” was a major attraction to customers, particular to high value customers. This view is supported by the fact that the mortgage rate and saving interest rate are among the key items at the Money Supermarket, a financial service rate benchmarking web site. Indeed, it is sites like the Money Supermarket that are forcing the price of products down by promoting price transparency and increasing price information.

Leeds and Holbeck had a different approach to saving costs. Leeds and Holbeck, a “bricks and mortar” building society contended that it was able to offer more competitively priced products because:

1) it was a mutual and therefore did not need to distribute dividends to shareholders, but could pass on all surpluses to customers

2) Leeds and Holbeck does not offer an expensive to manage current account, which enables it to avoid high transactional costs. This is particularly important in the case of current accounts with low balances of funds, which are very expensive to run due to the high costs of cheque clearing.

AIB has fewer branches than its competitors. It should, the interviewee argued, be able to offer reduced interest rates and lower costs. Similar solutions
were suggested by the respondent from Egg, who pointed to the fact that Egg does not have expensive branch costs either. By contrast, Clydesdale does have a “bricks and mortar” presence and is trying to actively compensate by reducing costs.

“Our Internet operation will reduce operating costs. But this is not our main purpose in setting up the Internet as a service delivery channel” claimed Mr. Burdin, our respondent from Leeds and Holbeck. He maintained that as a relatively small player in the financial service sector, Leeds & Holbeck has been very cautious in investing in the Internet. To date, the web site still only offers basic functions like providing information on products and services: opening a mortgage account and email for inquiries. Only a tiny two to three per cent of new customers had opened an account at Leeds and Holbeck online. However, there is increasing customer demands from Leeds and Holbeck customers for it to invest more heavily in the Internet and provide a complete Internet banking service.

At present the Leeds and Holbeck data records indicate that the additional customers that the Internet generates are not being accessed via a transaction. Rather, they are using the Internet for information while using more traditional methods to open and service accounts or obtain loans or mortgages. In fact only a very small proportion of customers applied for new accounts online. Most of these potential customers garnered their information about Leeds and Holbeck products and services from the bank’s web site. They then followed up with either a visit to a branch to open an account (which will not have extended the Leeds and Holbeck bricks and mortar footprint by a great deal). Alternatively the potential customer might approach the building society though a call center or by post which would be
more useful from a “reach” point of view. If the aforementioned surveys are correct, the proportions using the post, call center or Internet direct should increase steadily over time. It could be argued more rapidly for AIB’s younger and better educated customer base, than for Leeds and Holbeck more heterogeneous customers.

Mr. Wilson from Clydesdale strongly maintained in his replies that many successful banks are able to offer lower loan costs and higher savings rates by utilising the lower cost Internet channel, he asserted that the cost reduction advantage is not yet clear at Clydesdale.

The respondent from the Royal Bank of Scotland went further, indicating that costs have not been reduced in a short term. In fact, the respondent from the Royal Bank of Scotland suggested that implementing Internet banking has increased costs. This increase has arisen from the need for advertising and marketing to promote the new Internet service. However the respondent firmly believed that the use of the Internet would definitely produce cost reduction benefits in the long run. This longer term cost benefit is believed to be especially beneficial for larger banks like RBS due to the greater economies of scale available to the largest players.

4.3.3 Quality Customer Service

Nearly all of the interviewed managers agreed that the Internet has enhanced customer quality by providing customers with banking products and
services at their convenience. Customers have more choice and are able to choose what time to bank, where to bank and how they want to bank.

Figure 4.1: Customer recommendation rating

![Figure 4.1: Customer recommendation rating](image)

<table>
<thead>
<tr>
<th>Bank</th>
<th>% Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halifax</td>
<td>0%</td>
</tr>
<tr>
<td>Barclays</td>
<td>10%</td>
</tr>
<tr>
<td>Lloyds</td>
<td>20%</td>
</tr>
<tr>
<td>Natwest</td>
<td>30%</td>
</tr>
<tr>
<td>Abby</td>
<td>40%</td>
</tr>
<tr>
<td>First Direct</td>
<td>50%</td>
</tr>
<tr>
<td>TSB</td>
<td>60%</td>
</tr>
<tr>
<td>National</td>
<td>70%</td>
</tr>
</tbody>
</table>
| Source: NOP First Response Q4 2001

First Direct is a good illustration of the competitive advantage produced by superior customer service. As already discussed, First Direct has been consistently number one for customer satisfaction and customer positive recommendations in the UK retail-banking sector. 85 per cent of customers claimed to be ‘extremely’ or ‘very’ satisfied with First Direct, 82 per cent of their customers have recommended First Direct to friends or colleagues, 78 per cent of First Direct customers believe their service is better than that provided by other banks and 95 per cent of First Direct customers said they were satisfied with the First Direct account opening process (see Figure 4.1 and 4.2).

Figure 4.2: Customer Satisfaction Rating
One of the reasons that First Direct provides a higher quality service than rival banks is because it uses staff from the service sector for call centres, rather than employing ex-banking sector staff. One of the challenges for First Direct is whether it will be able to maintain its competitive advantage by using new technology or will lose its lead as others introduce their new technology.

In the past, very few people moved their banking business. Customers did not stay with their bank out of loyalty; they stayed because they considered moving banks would be quite difficult. A recent survey conducted by BMRB on behalf of First Direct showed as many as 40 per cent of banking customers thought that moving their account would be a nightmare. According to Independent Banking Advisory Service (IBAS), people's inertia is largely down to the inconvenience of moving, a fear of things not going smoothly and fear of losing any benefit they may have accrued from years of loyalty. "There has been a great reluctance to move, despite their treatment," says IBAS chief executive Eddie Weatherill (IBAS, 1999).
Most people are still with the same bank they started out with and banks pretty much appear to have a captive audience. Interestingly in the US nowadays, even seniors move banks. “Bank customers of all ages, it seems, are pretty much like customers of every other service business: Give them a better product, price it fairly, and they will make a conscious decision to switch providers if doing so is relatively painless” (King, 2004).

Another explanation for banks’ lack of competitiveness over current accounts is that historically they have actually made little money from most current account customers. Many actually cost the banks money to run. They treat it as a loss leader. But more and more banks are keen for customers to pay for the privilege. They know that current accounts have long been a loss leader – and now that people are keen to go elsewhere for other services, they want to make some money on their current accounts. So over the last few years, many high street banks – and now at least one Internet bank – have started to offer current accounts that charge a fee. In fact, with the latest Office of Fair Trading inquiry casting doubt over charges for overdrafts, many banks have threatened to make all current accounts fee paying. This is more advanced in the US, where current account associated overdrafts have boosted profitability. Typically though in the UK, it is the insurance, credit cards, mortgages and investments, which boost profits.

The Financial Services Authority has brought in new guidelines to ensure that banks co-operate with each other when customers decide to move their banking to another bank. As new technology becomes available to the market, whether First Direct is able to attract new customers and maintain its existing customers will be a challenge. Customer satisfaction has been a major success.
factor for First Direct, with customers recommending new customers to them by word of mouth. First Direct’s advertisements are about happy customers that mirror its entire customer population. First Direct conducts questionnaire surveys with its customers to measure customer satisfaction and make recommendations for improvements.

Mr. Sugden from First Direct said, “The Internet has provided much more interaction for customers than they have through a telephone service”. Also, because the unit of cost through the Internet has been reduced, First Direct is able to invest in technology to provide a multi service delivery channel and improve its service quality.

Mr. Sugden was asked about what is meant by service quality? His answer was “to have an overall good customer satisfaction level”.

Like the First Direct respondent, the Egg interviewee considered that the Internet has improved service quality. For example, by utilising the latest Internet technology, Egg is able to track customers’ behavior and understand their attitudes and meet both physical and emotional needs through the Egg Internet engine. It was also important Egg’s respondent argued, to segment customers and utilise the information to provide the right service targeted for them. He also stressed the importance to Egg of “customer service,” defining it has offering a friendly service with a certain amount of human contact. In addition, Egg’s account aggregation function helps its customers to understand and manage their money more effectively, including their deposits with other Internet banking providers. This allows customers to manage their accounts more efficiently.
Other banks in the interviews also expressed the importance of good customer service. Mr. Burdin of Leeds and Holbeck said, “The main internet banking service factor is convenience for customers.” The Leeds and Holbeck expanding range of Internet services includes the convenience of sending secure mortgage applications, direct to its website. In addition, it has recently launched Mortgage Life Insurance and Term Assurance online application systems as well as an online funds supermarket (Fundstore). Regular member surveys show that the overwhelming majority customers are highly satisfied with Leeds & Holbeck. Good quality service is according to Mr. Burdin, a so-called, “keep word”. In other words you do what you promised to do.

However, it can be argued that the Internet has reduced service quality by offering less human interaction. Mr. Wilson from Clydesdale commented that the Internet has reduced service quality in their particular bank, due to lack of human interaction. There have been many studies and reports about the effects of the lack of human interaction in using the Internet, focusing on older people (Sourbati, 2004), on wealthy banking customers (McGuinn, 2002) and in general (Kapoulas et al., 2004).

It could be argued that the respondent is making this case because the Clydesdale web site is not fully functional yet at the transactional level. The respondent said that Clydesdale is working with IBM in attempt to improve its web site interactivity.
One issue, Internet security has been cited as a factor reducing customer service quality. Internet banking security is a key customer desire and an important issue. It is discussed at length below.

AIB seeks to offer high levels of service quality by supporting its Internet banking offering with 24 hour telephone banking. It also has in depth technical support for its Internet banking service.

First Direct has a very simple approach service quality and product offerings. It is arguably following its mission statement “most banks are about money. First Direct is about people; simple but revolutionary”. Most of the responses to questioning, emphasised customer satisfaction and this was the driver for their approach to service quality and product offerings. First Direct’s marketing and ethos is full of customer centric statements, like:

“We believe banking should fit around you, not us. It is your money. You come first. The way we respond to you is what matters. We are keen to learn. Quick and efficient, yes, but with a touch of what we call ‘magical rapport’, wit, intelligence and common sense. Respect for the individual is our philosophy. It is how we treat each other and how we treat you. So whether it is your day-to-day banking, agreeing a loan or arranging an offset Mortgage, it is just the same. You come first” (First Direct, 2004). The First Direct respondent continually emphasised this customer centric approach and the belief in the marketing statement that: -

“It is what separates us from the others, why we’re the most recommended bank with the most satisfied customers”. Thus the whole approach of this bank is
about emphasising individual customer satisfaction rather than what produces it, the special technology, clever products or marketing. First Direct does appear to succeed in this area with a 4 ½ star rating (max 5) as rated by 113 users of its products and services (www.ciao.co.uk).

RBS on the other hand had a more complex response to questioning on this matter, which reflected their strong belief in their multi-channel offering. RBS describes itself as “A number of well-known financial services names which contribute to the success of The Royal Bank of Scotland Group”. It is arguable whether their belief in the multi-channel approach followed or preceded their acquisition strategy, which left them with a plethora of brands; but this is beyond the scope of this study. Nonetheless they justify their multi-channel/brand strategy by suggesting they can better optimise the customer/product fit with the appropriate brand for the correct customer. The RBS respondent emphasised quality and innovative services but with a fundamentally different slant to the First Direct customer approach.

The Clydesdale approach is customer centric like First Direct but seemingly less message/marketing driven. The Clydesdale respondent talked about “understanding his customer”, using that understanding to segment customers to produce an “appropriate product set”, in other words, “good products for the right customers”. The respondent represented the bank as having the same approach to service with the aim to offer “good customer service” or in other words “give the right service to the right customer”. Clydesdale expected to generate profitability by leveraging their brand strength to build customer credibility to offer products and services, which were not always at the best price.
AIB also prides itself on its high quality multi-channel selling system, which it believes enhances its ability to market its products and services. It also tries to produce winning products by attempting to use its small size as an advantage. Thus it seeks to adopt a focus strategy and penetrate niche markets that it can adapt its products to, with the aim of gaining competitive advantage. It provides attractively priced products. It also believes that it will be assisted by the fact that it has developed a high quality customer base to access with its products.

A number of respondents suggested that service quality could be improved by providing customers with other related products. Cross-selling other non-banking products can be a win-win situation for both the bank and customers. The bank gains other revenues and provides a better service thereby hoping to increase customer loyalty, while the customer has easy access to a number of products. Although many consumers will consider their bank for additional deposit products, few will turn to their bank for credit, investment, or insurance products. But not all banks' cross-sell opportunities are created equal (Selvin, 2005).

4.3.4 Customer Base

A high value customer base is a very important way for a bank to attain competitive advantage (SAP, 2005). Most retail banks rely for their profits on a very small number of well-off clients (Deloitte Consulting, 1998). So for example, compared with its parent company, HSBC, First Direct has a higher value customer base. The First Direct customer base consists mainly of middle-aged people, aged 25-45, from the UK mainland, who are relatively highly paid (see Table 4.1). Mr. Sugden called them “money rich but time poor people”. First Direct does not
focus on students who might be considered a valued customer for 'tomorrow', but looks for valued customers today. The reasons are twofold. Firstly, its parent company HSBC has extensive student account services. Secondly, customers today tend to change banks more frequently than they did in the past thus reducing the advantage of capturing customers early. Until now bank 'customer churn' - the number of people switching their current account from one bank to another - has been low in the UK, only 3 per cent (Deloitte Consulting, 1998). Indeed, there is a greater chance you will get divorced than switch your personal banking account (Collins, 2005). But if the development in the United States is anything to go by, the numbers will go up fast (Deloitte Consulting, 1998).

Table 4.1: First Direct Customer Base

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage of customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>4%</td>
</tr>
<tr>
<td>25-34</td>
<td>27%</td>
</tr>
<tr>
<td>35-44</td>
<td>35%</td>
</tr>
<tr>
<td>45-54</td>
<td>15%</td>
</tr>
<tr>
<td>55-64</td>
<td>14%</td>
</tr>
<tr>
<td>65+</td>
<td>6%</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49%</td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
</tr>
<tr>
<td>Socio-economic group</td>
<td></td>
</tr>
<tr>
<td>AB</td>
<td>46%</td>
</tr>
<tr>
<td>C1</td>
<td>34%</td>
</tr>
<tr>
<td>C2</td>
<td>14%</td>
</tr>
<tr>
<td>DE</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: First Direct Internal Report

In addition, it would appear that today's customers require more sophisticated services.

Egg's average customers have higher pay (over £30,000) than the average British citizen's income. In addition, its customers are younger (mostly aged from
25 to 45) with higher repayment ratio records than the average banking customer. Also the majority of their customers are in the AB, C1 Socio-economic group. Its respondent confirmed that it has employed advanced technology to understand its customer segmentation. The information that it gains from this provides it with a better understanding of its customers. From this better understanding it can design and promote better customer tailored products than its "brick and mortar" competitors who cannot easily undertake and react to this type of segmentation.

When questioned on the subject of its customer base, the respondent at the Leeds and Holbeck admitted that they had a relatively small customer base. However they are relatively higher value/income/wealth customers. They tend to be primarily in the socio-economic groups AB and C1.

The AIB respondent suggested that their customers are mainly young educated people with higher than average net-worth. The RBS respondent also agreed that most customers using the Internet functions are younger and better educated. However, many commentators believe this generation gap will disappear. For example, John Harrison, partner with Deloitte Consulting, predicts that the generational gap between computer-savvy 30-somethings and the rest of the population will soon disappear (Deloitte Consulting, 1998).

All the respondents were convinced that it was becoming more and more difficult to attract high value customers. This is partly due to the obvious income/spending benefits of having higher socio-economic customers. As an illustration, at a typical retail bank about 20 per cent of its customers generate
nearly all the profit, effectively subsidising poorer account holders (Deloitte Consulting, 1998).

Clydesdale on the other hand, arguably because of the difficulty of attracting high value customers, targets primarily the lower socio-economic groups like BC and DD. Although there is a lot of literature on very poor banking clients and the use of credit unions etc. (for example, Stack and Thys, 2000; Metcalf and Benson, 2000), there is little on the value of lower socio-economic groups as customers.

The respondent from Leeds and Holbeck believes that the Internet will attract new customers. However he believes that it is difficult to maintain high value customers who are more price-conscious and will use aggregate web sites, like Money Supermarket, to find the best product and service offers. Mr. Burdin said, “Customers are more likely to switch banks to obtain the best saving rate today, and the Internet is a perfect channel to provide our high interest rate and low mortgage rate information”. Normally, these customers who are constantly looking for the best saving account belong to AB and C1 socio-economic groups. Thus the Internet can enable Leeds & Holbeck to obtain new customers from a new market segment. Meanwhile, smarter database management and marketing techniques (a natural extension of Internet banking) allow the newcomers to target the well-off customers (Deloitte Consulting, 1998).
4.3.5 Good Brand

The Internet can provide constant brand association in the retail banking market place. Those customers who have been earlier adopters have built up brand expectations for the Internet service providers they utilise. Any quality brand arises from the combination of the events that shape the total customer experience. A simple to use, accessible web site, perceptive staff and a commitment to maximising value are all possible contributory features. But a total company brand unity combined with a culture of mutual benefit between the customer, brand and staff has made First Direct, a leading brand and a virtual community.

First Direct has become more than just a bank. The First Direct brand could not exist in its current form without a genuine and solid contribution from all involved. It is the inclusive brand culture that has helped dispel bureaucracy and instill a sense of unity and cooperation. The brand provides an assurance of quality. The service is seen as a special one for those 'in the know', those astute enough to recognise and value the benefits. A classic early adopter strategy has made innovation a matter of routine at First Direct. As a service operation, quality is measured by the nature of the interaction between customer and staff. What the customer gets out of that relationship is what creates and preserves the value of the brand. First Direct focuses on the intangible, on creating and maintaining those key personal inter-relationships while bringing everyone together within the caring 'pavilion' of the brand. Making the brand work across all multi-channels is also important to First Direct. Providing customers with choice and giving them the freedom to access their financial information in a manner convenient to them has not only revolutionised the banking sector, but also augmented the First Direct
brand. But the reasons for First Direct’s notoriously high satisfaction levels are multifunctional. Any good brand stems from the combination of events that shape the total customer experience (Cauwelaert, 2000).

In 2004 alone, First Direct won the following awards: Guardian Consumer Finance Awards 2004, first place at Virtual On-line Banking Survey (VOBS, 2004), Independent research from MORI - The UKs Most Recommended Bank 2004, Revolution Awards 2004. This represents an amazing achievement and underlines the high quality of the First Direct operation, which supports the brand.

The branding of the Leeds & Holbeck building society is entirely different. As is the case for most building societies, Leeds & Holbeck building society has a long history (over 150 years). According to their interviewee, Mr. Burdin, its image is arguably that of a “mum and dad generation” financial service provider. Given this branding the Internet provides the society with the ability to undergo a revolutionarily change to its image from the “old fashioned” one-to-one designed to attract a more diversified customer group including younger and/or higher income customers.

It can be argued that First Direct’s brand does provide competitive advantage, but it is questionable how sustainable the advantage is in the very long term given the ability of the Internet to enable even Building Societies to radically change their branding, as discussed above. Frans Van Cauwelaert of Kindle Banking Systems offers a good summary of this brand (and other) risk below.

On the demand side, electronic networks make comparison shopping easier, leading to increased account mobility, decreased customer loyalty, deterioration in
brand values and the inevitable commoditisation of many financial products. On the supply side, barriers to entry and costs are lowered, stimulating competition from smaller banks, niche institutions and new non-bank entrants (Cauwelaert, 2000).

The other respondents were relatively silent on the brand issues arising for Internet banking.

4.3.6 Quality Product Range and Cross Selling

Consumers hold more financial products with retail banks than with any other financial services organisation. Cross-selling ability in the retail banking sector has been measured as the number of products purchased by one account holder (DIBC, 2002). An Internet bank’s ability to effectively cross sell derives from its providing an appropriate product offering, clever strategies to maximise the sale of products, excellent customer service and favorable customer retention/attrition levels.

According to Datamonitor (2004), consumers hold more financial products with Lloyds TSB, than any other financial services organisation followed by HSBC, Barclays, NatWest and Halifax. RBS has the highest packaged account penetration levels followed by Lloyds TSB, NatWest and Barclays and Co-operative. In theory, these represent measures of the quality of the product range and cross selling ability.
First Direct offers more attractive interest rate products; ranging from saving accounts through mortgages to investment products. Moreover, First Direct has also benefited from the financial support and brand name of HSBC, but also the access to the full retail banking service of HSBC’s global offering, e.g. a First Direct customer can travel overseas and use HSBC’s ATM.

Once again, Egg is the pioneer with its “supermarkets” for investment funds, insurances and tax-free Individual Savings Accounts. Egg says its "cross-selling ratio" is going up. Intelligent Finance reports that more than 65 per cent of its customers are buying at least two financial products (Weber, 2001).

Increasingly, the competition on the Internet enables customers to take advantage of their ability to compare different banking products much more easily, e.g. via the money supermarket. In this open environment where knowledge is easily disseminated, if an Internet bank wants to maintain and/or increase market share, the product offering has to be demonstratively attractive to current and potential future customers.

One emerging strategy is that online banks may concentrate on ‘integrated personal financial management’ using technology to map the financial profile of customers and offer products that best meet needs. In effect, institutions may re-bundle products to meet these needs but such products may not be actually provided by them. Consequently, institutions will no longer focus on cross-selling in the traditional sense. Today’s buzz word is open finance; firms no longer sell only their own products but instead offer the best available, whoever the provider is — or risk losing customers (Peppard, 2000).
It should be noted that it is hard to sell complex products online as customers prefer face to face service when purchasing some complicated products like mortgages or some savings products, for example equity index related products (Peppard, 2000).

Given the ease of communication that the Internet provides it is difficult for an Internet bank to obtain lasting competitive advantage from the quality of its product range and cross selling ability. Indeed some go further and assume that there will be no e-business as distinct from business (Peppard, 2000). Business is converging with technology and the message is no different from that of ‘IT and competitive advantage’, argument of the 1980s: technology decisions are essentially business decisions (Peppard, 1993; Porter and Miller, 1985).

4.3.7 Other Factors

There are other factors than can generate competitive advantage, for example, organisational culture and background. First Direct, has a strong organisational culture with energetic young staff. These staff provide a committed workforce for the firm and First Direct rewards them by being among the ‘best companies to work for’ in the UK. First Direct is totally committed to making the company ‘a great place to work’ - therefore emphasis is put on the social as well as working environment. Facilities at all First Direct sites include a restaurant, relaxation areas and a nursery.

Another completely different factor is the mutuality of Leeds and Holbeck. For Leeds and Holbeck, this aforementioned mutual positioning has also been a competitive advantage. Leeds & Holbeck is owned by its members and intends to
remain so rather than demutualising like Abbey or Halifax etc. It continues to demonstrate the benefits of independent mutuality by offering high savings rates, low mortgage rates, and by putting members' interests first. For example, Leeds and Holbeck's customers received an effective benefit of £35 million return on investment from the building society in 2002.

This benefit arises from three areas, which may provide competitive advantage, namely: the absence of external capital that needs to be serviced; the existence of free reserves, which generate a rate of return, and frequently lower costs. Most commentators conclude that the fundamental economics of the mutual firm are favourable to building societies (for example, Drake and Simper, 2003). It is alleged that there is greater scope for managers of financial mutuals to engage in rent seeking or expense preference behaviour (Williamson, 1963). This arises because the owners (investors and borrowers) of the mutual have less influence on managers that do their equity shareholding counterparts in a plc (Fama and Jensen, 1983a b; Drake and Llewellyn, 1998).

Mr. Sugden of First Direct summarised the other factors, which might generate competitive advantage from the Internet by saying that the biggest advantage from the Internet is the opportunity to sell First Direct's products via this medium. The respondent considered that the ability to really sell product is the key attribute of the Internet. In other words it provides a medium where proactive, differentiated marketing and sales management is possible.
4.4 CHARACTERISTICS OF THE FIRM

This section looks at how the particular characteristics of the six interviewed firms may affect the benefits of utilising the Internet. The particular characteristics considered are the size, type of bank or building society, amount of Internet usage, width of product range and finally their position in respect of first mover advantage.

4.4.1 Size of the Bank

When questioned whether big banks or small banks gain more competitive advantage, almost all respondents think that their size category of bank gain more advantage, (managers from big banks consider that 'big banks gain more competitive advantage by using the Internet' and vice versa).

Mr. Sugden of First Direct, commented that in his opinion, big banks were not likely to be efficient in the way they conducted Internet transactions because they are traditionally generally not good at customer service and selling. People use them because they need banks and the ATMs, which large banks provide in many locations. Small banks, he contended, can gain more competitive advantage through the Internet. This is because many are creative, and therefore able to differentiate their service quality and innovate to provide well-targeted exceptional products. However, First Direct is a very particular example of a small bank, which gains considerable competitive advantage because it has HSBC behind it in terms of infrastructure, economies of scale, accessibility, globe reputation, funding costs and unit processing.
Mr. Burdin from Leeds and Holbeck, like the First Direct respondent, thinks smaller banks gain more competitive advantage by using the Internet. The Internet will enable small banks to reach new customers as effectively as big banks. Although the bigger banks are able to invest heavily in media to boast their web sites and Internet functionality, rational customers are primarily searching for the best priced products. There are increasing numbers of third parties like Yahoo finance and Money supermarket that offer benchmarking of most financial products in the UK. This presents a considerable competitive advantage for the “high-quality” financial product provider like Leeds and Holbeck.

Managers from RBS and Clydesdale, in contrast, consider that big banks tend to achieve more competitive advantage by using the Internet than their smaller counterparts. This is because big banks have bigger customer bases and therefore their cost of transactions per head is lower. (The total transaction cost includes the cost to set up and maintain web sites).

Mr. Cooke from AIB also thinks big banks gain more competitive advantage from utilising the Internet. He claimed that the Internet has increased the AIB market share, and reduced costs. Since bigger banks frequently have a higher cost base, the Internet will significantly reduce their costs, particularly when it is mass used. In this situation, he argues they gain more advantage than their small competitors.

Egg’s respondent considered that big banks gain more advantage by using the Internet. However this respondent’s reasoning was completely different,
namely that this is because big banks are able to migrate their customers from the expensive branch network to the less costly Internet channel.

4.4.2 Type of the Bank

Among interviewees there was no agreement on whether "Internet-only" banks gain more advantage than "bricks and mortar" retail banks. Some respondents suggested that "Internet-only" banks gain more advantage. They contend that they have fewer resources to spend on branches as well as the network. However, this has to be balanced with the weakness of not having branches with crucial ATMs. In reality, most Internet-only banks in the UK have bricks and mortar financial/branding support, e.g. Egg and Prudential, Smile and Co-operative, Cahoot and Abbey National.

Egg’s respondent suggested that it gained more advantage than a "bricks and mortar" retail bank by only having one major service delivery channel; Egg is able to focus on providing customer tailored service. The Clydesdale respondent also agreed that so far, Internet-only banks have gained more advantage than "brick and mortar" retail banks. This, he argued, is because Internet only banks benefit from lower transaction costs and a less extensive and costly legacy old system. However, appropriate technology investments must be made on a continuous basis to successfully look after customers.

Mr Burdin of the Leeds and Holbeck suggested that it is quite "hard to say." Internet only banks have better technology in their Internet service delivery and have a competitive advantage in that aspect. They also do not have legacy systems,
old brands, etc. However, Internet-only banks only have one channel to deliver service that almost by definition may not necessarily meet their customers’ entire needs. The respondent from RBS considers the Internet as a complementary channel for “bricks and mortar” banks and that such banks have gained greater competitive advantage from using the Internet.

4.4.3 Internet Usage

All respondents agreed that more advanced the Internet offering the greater competitive advantage it bestowed. Mr. Sugden claimed that there are not many banks without full online banking functions (classed as level three in the FDIC’s definition, see Chapter 2). He believes that all retail banks in developed countries have developed online transactional functions and therefore the FDIC’s definition might have become redundant three years ago.

Although the fact is that most of the building societies in the UK are at level one or two on the FDIC’s definition, First Direct does not consider them to be competitors.

Egg’s respondent gave a positive response to this question. Egg started from the highest FDIC’s level as an Internet bank. It has benefited from the comprehensive communication tools with its customers though the Internet. The respondent also argued that Egg would not have achieved such advantage had it not had the Internet full service for its customers.

The respondent from the Clydesdale bank believes that a stronger Internet offering will confer greater advantage. Therefore Clydesdale is trying to develop
from level two to level three, so that it can offer a fully transactional offering. This decision to develop a more complete Internet offering was based on a consideration of the value of investing more to improve the capability of the Internet offering. The key question is whether the investment to improve the offering is financially worthwhile. In other words, is the annual profit and lost cost of the investment greater than the annual lost profit due to not having the transactional functions that the investment in the Internet offering will provide? The management of the Clydesdale bank took a long term view and concluded that the Clydesdale would lose customers if it did not make the improvements and therefore the decision to invest in an improved offering was made.

RBS's respondent also considers that its advanced Internet offering will bring the bank more competitive advantage by enhancing its brand and improving its customer service. Although the cost required setting up the Internet banking offering at a sophisticated level is not an issue for RBS, the cost of maintaining the complicated Internet offering cannot be neglected. The respondent from RBS also maintained that the sophisticated Internet offering is not only about the level of Internet usage, but also the quality and security of the site are key attributes.

As is the case for most other building societies, Leeds and Holbeck's Internet function is at level two according to FDIC's definition. The smaller building societies are generally offering their Internet banking at level one.
4.4.4 Product Range

There was no consistent view among respondents on whether retail banks and building societies that offered more products gained greater competitive advantage by using the Internet. Both Mr. Hunter from RBS and Mr. Cooke from AIB considered that a fuller product range will bring them competitive advantage from utilising the Internet. This is because of cross selling opportunities, economies of scale and one-stop product shopping.

Mr. Sugden from First Direct claimed that a too-complicated product offering would be a competitive disadvantage. This is because customers are reluctant to buy all their products online, as they want to have human interaction with staff members. They will still revert to using the telephone or even going through branches. First Direct will not make its products too complicated and will keep them as simple as possible to attempt to avoid this problem.

But although First Direct is trying to keep its products as simple as possible it still offers an extensive range of products which are available over the Internet and via the telephone, including:

- Current and savings accounts
- Credit cards and personal loans
- Mortgages
- Investment products, shares and pensions, travel, motor, home and personal Insurance

The respondent from Leeds and Holbeck did “not really” feel that a fuller product range will bring them competitive advantage from utilising the Internet. This is because customers who bank online are more likely to compare banking
products online. As discussed above, third parties provide very transparent information for Internet users about the best financial product available from different providers. Arguably both for this reason and because of the profile of online customers discussed at some length in this paper, online customers are more likely to buy best price/value/quality products from different providers.

The respondent from Clydesdale bank did not agree with this proposition. First he made a general point that in many ways he felt that the banking product range had not changed fundamentally "for decades". He again contended that the Internet would not help to sale a complex product range due to the high price transparency on the Internet. Also, customers today are willing to shop from different financial service suppliers.

In summary, the respondents fell into three camps over this issue, depending primarily on how important they felt the price transparency of the Internet to be.

4.4.5 First Mover Advantage

The majority of the interviewees believed that the first movers of the Internet have gained more competitive advantage by entering the market earlier. Egg has been a successful first mover in the UK, like Citibank in the US. However, there are also negative stories about first movers in the Internet. For instance, BankOne in the US had advanced technology and invested heavily in the online banking system in the first place. But customers did not feel comfortable using an Internet only bank without "bricks and mortar" branches.
First Direct is the first mover in telephone banking in the UK and Mr. Sugden said, “We have definitely gained competitive advantage in telephone banking” from being a first mover. However, First Direct is an early follower in Internet banking.

Leeds and Holbeck is early follower in terms of setting up a web site setting but is late entrant, when it comes to Internet banking. Mr. Burdin of the Leeds and Holbeck believes it really depends on a bank’s particular situation. He argued that for big banks who can afford heavy investment and risk, and who carry out research properly, they might well gain more advantage by entering the Internet banking market early. They will be able to build brand loyalty and image. However, smaller organisations, with less resources or ability to make mistakes without significant corporate damage will gain more advantage by investing “carefully rather than early”. Leeds and Holbeck was uncertain about the risks, potential benefits or financial outcome of investment in the Internet and carefully studies others experiences before it decided to go ahead. The Leeds and Holbeck respondent made a telling point that by waiting, they were able to take advantage of the improved technology available today which has also become less expensive. In addition, there are now more Internet managerial skills available and generally more experienced staff. It can be argued that this point is partly because of the nature of this development, which is also being undertaken in other sector verticals not just in banking. Therefore the price/availability point is cheapening as there are various vertical Internet markets all developing expertise, technology and human resources thereby increasing even further the reduction in costs and greater staff availability.
Egg believes that their first mover status brought them competitive advantage. For obvious reasons they might be expected to argue this way. However the respondent from Egg did admit that the business model is "very easy to copy". To counter this problem, Egg strives to provide "brilliant ideas to make it simple" to maintain its first mover advantage. The Clydesdale bank respondent agreed with the proposition but only if the Internet bank had the right strategies to meet its customer needs.

The AIB respondent contented that first movers have competitive advantage. He cited the case of UK, where he believed that Egg had maintained its first mover advantage by its constant investment in research and planning which he believed was the key to success. Interestingly AIB has first mover advantage in Internet banking in Ireland and is one of the early followers in the UK.

Therefore it could be argued that overall the respondents supported the statement that the Internet first mover gains more competitive advantage.

4.4.6 Managers' View

The interviewees believed that managers from different departments have quite different views about the Internet as a way of creating competitive advantage. The respondents from the Royal Bank of Scotland were typical. For IT and Finance managers, the main competitive advantage they believe that the Internet brings is cost savings. Meanwhile marketing managers believe that the Internet may have provided competitive advantage for building the brand and enabling the bank to increase its ability to sell products. This marked variation in opinion is arguably because different managers are motivated to achieve different goals through their
job functions. Inevitably, both finance and IT managers will be somewhat cost
driven, and initiatives like Internet banking can enable cost reduction. Marketing
managers have to build brands to drive higher sales of products at better margins.

In the past, the Leeds and Holbeck IT department had requested investment
in the Internet when the building society as a whole was very skeptical about
Internet investments. Now that the marketing department controls Internet
strategies, it has forged an agreement with the finance department that Leeds and
Holbeck should be prudently pursuing this investment.

At Egg, the respondent said that different departments had different views
about Internet banking “all the time”. He said that the marketing department
tended to have the larger role when the bank was making strategic decisions about
the Internet. He then went on to clarify some of the issues, which were debated at
Egg, which will be debated elsewhere. He mentioned that one major area of
contention between departments at Egg was the importance of service quality.
Some departments, including marketing felt that service quality was not important,
because products attract customers, not service. Other departments argued that
service retained customers. Another debate concerns the importance of Egg’s size
and whether the number of customers affects its success. Another area of
contention is the general importance of the Internet as major delivery channel. This
subject links with the issue of likely growth in the overall level of Internet usage.

There is strong support for the notion that managers from different
departments have radically different views about the Internet as a way of creating
competitive advantage and the issues that surround these views. It could be argued
that these views are partly explained by the functions and goals of the different departments.

Interestingly, there was unanimous support for the contention that senior managers tend to consider that the Internet has provided more competitive advantage than junior managers from all the respondents.

Providing an explanation for this finding is not easy. It may be that senior managers are more motivated to consider the long term and therefore more interested in new initiatives like Internet banking, which are by nature longer term in their execution. However it might be argued that this should be offset by the lower technical competence of older more senior managers.

4.5 CONCLUSION

This chapter presented the results of the interviews. It firstly explained how they were formulated and undertaken. The over-riding aim was to extend the findings in the extant literature, and to further confirm and refine the research model of this study. In addition, the interviews’ results were used to assist the formulation of the following survey of 151 senior managers.

In section 4.2, a description of the interviews backgrounds was given and the rationale explained for the selection of each of the particular responders. The development of their organisations’ Internet offerings was also discussed, along with the details of the actual interviewees at the six interviewed banks. Their status as an Internet bank is discussed in detail and the products and services that they are selling through the Internet were outlined.
The six interviews were the Royal Bank of Scotland (RBS), First Direct, Egg, Clydesdale Bank, Allied Irish Bank (AIB) and the Leeds & Holbeck Building Society. The six cases represented a cross section of the banks operating internet banking. They include an internet only bank, Egg, a bank subsidiary operating a telephone and internet only service, First Direct, a major bank, RBS, a building society, the Leeds and Holbeck and two medium/large sized subsidiaries of foreign banks, Clydesdale Bank and AIB.

In sections 4.3 and 4.4, the results of the findings from the interviews were explored in detail. The views of the six interviewees were discussed in relation to the competitive advantage gained from utilising the Internet. First respondents' views about the differentiation they achieve with their Internet offering were outlined, next the benefits to customers the banks offering can bring and any accompanying competitive advantages were examined. The changes in competitive position made possible and enhancement of unique firm aspects were also then explored.

The six interviews identified five other ways to build competitive advantage. Firstly cost reduction was established as a key area enabling the bank to offer products at competitive prices. In addition, there was a good recognised and trusted brand. Superior customer service quality - including multi-channel service delivery was also considered important. Competitive advantage arose from a good customer base of high socio-demographic customers. Finally there was the right product range (for the right customers), which can be achieved by accurate customer segmentation. Each of these is discussed in turn and the views of the six respondents outlined.
The section continued with a discussion of the respondents’ approaches to service quality and product offerings, which produced a general discussion as to whether or not banks have achieved competitive advantage via the Internet and whether this is sustainable. Finally, the respondents discussed a number of other service quality aspects including, whether there were cost reductions using the Internet offering, if the Internet actually increases costs, improves customer service, changes the quality of their customer base or affects their brand, and enables enhanced cross selling. There were other factors briefly considered, for example, organisational culture and background.

Finally the views of the different bank respondents are summarised in the following table, which briefly covers the issues raised earlier in the chapter above. The table underlines the general unanimity of view about the majority of the issues, which arose out of the responses to the interview questions. On a number of areas, like whether the Internet has provided competitive advantage, reduced costs, attracted new customers and increased the banks high value customers, there was a complete unanimity of view that indeed the Internet offering achieved these aims.

There was also complete agreement on the idea that the Internet provided greater competitive advantage with increased usage and that first movers gained advantage.

Table 4.2 sums up the findings of the discussions with the various respondents and as outlined in the preamble to the chapter illustrates the consistent agreement between the respondents on the major issues.
### Table 4.2: Summation of Six Interviews

<table>
<thead>
<tr>
<th>Competitive advantage (Concept)</th>
<th>First Direct</th>
<th>Leeds &amp; Holbeck</th>
<th>AIB</th>
<th>Clydesdale</th>
<th>EGG</th>
<th>RBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction, Organisational culture, HSBC background</td>
<td>Multi-channel distribution, Lower cost, Competitive pricing, Quality service, Customer base. Mutual positioning as a building society</td>
<td>Multi-channel, Good Product, brand, cost, good selling system, Multi-channel selling, Good Customer base.</td>
<td>Good product for right customers, recognised brand, good customer service</td>
<td>Low cost system, better product, customer service, understand &amp; segment customers &amp; provide right service</td>
<td>Multi-channel selling, quality service, provide different customer right product/service</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Whether the Internet has provided competitive advantage?</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES, but only for a short period and with conditions.</th>
<th>YES</th>
<th>YES</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Factors by which the Internet provided competitive advantage (without prompt)</th>
<th>Improved service quality, Reduced cost</th>
<th>Reach unreachable customers</th>
<th>Reach unreachable customers</th>
<th>Reduced cost, therefore provided improved products.</th>
<th>Competitive offering, customised service</th>
<th>Competitiv e offering, quality service</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reduce cost</th>
<th>Yes, but not main purpose</th>
<th>Yes, but not main purpose</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>No: Not in the short term. It has increased cost</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Improved Service quality</th>
<th>Yes</th>
<th>Yes</th>
<th>Not really</th>
<th>Not really</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Customer base: Attract new customers</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>High value customers</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
</table>

### Characteristics of retail banks and competitive advantage

<table>
<thead>
<tr>
<th>Size</th>
<th>Big vs. small</th>
<th>Which gain more advantage?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small and innovative</td>
<td>Small</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complexity of product</th>
<th>Simple</th>
<th>Appropriate</th>
<th>Appropriate</th>
<th>--</th>
<th>Appropriate</th>
<th>Appropriate</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Internet vs. “bricks and mortar”</th>
<th>Internet only</th>
<th>Bricks and mortar</th>
<th>Bricks and mortar</th>
<th>Internet only</th>
<th>Internet only</th>
<th>Bricks and Mortar</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Internet Usage</th>
<th>Level of usage/Internet functions Higher level gains advantage</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Time of entry First mover advantage</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
<th>YES</th>
</tr>
</thead>
</table>

241
Chapter 5: FINDINGS OF THE SURVEY

5.1 INTRODUCTION

This chapter provides a comprehensive presentation of the findings of the survey. Section 5.2 presents the descriptive results from the survey; the concept of competitive advantage, factors influencing banks achieving competitive advantage, sustainability, and barriers to the achievement of competitive advantage.

Section 5.3 presents the factor analysis used to further explore the issue of the perceived competitive advantage of the Internet to retail banks and building societies. The reason to use factor analysis was to determine whether any underlying constructs or factors could be derived from the dependent variable data set, and, in addition, to ascertain the minimum number of factors that explained the co-variance among the observed variables.

Section 5.4 discusses the statistical tests that were performed to test the research framework and a number of hypotheses are discussed and the results obtained from these tests are presented in this section. The regression analysis and results from the hypotheses testing are reported.

5.2 DESCRIPTIVE ANALYSIS

This section presents and discusses the opinions of the respondents to the survey in relation to issues of competitive advantage. As this thesis concludes that the major issue arising from the usage of the Internet is in relation to competitive
advantage, it is appropriate that these issues should be discussed in the first section of the chapter on findings of the survey.

The perceptions of competitive advantage are discussed in relation to: cost and differentiation, customer focus, competition focus, firm characteristics, combination characteristics. There is also a review of various observations on competitive advantage, which did not fit into the aforementioned categories.

**Concept of ‘Competitive advantage’**

When discussing the nature of competitive advantage, most respondents (67.5 per cent in total) agreed with the description of competitive advantage as ‘an advantage that makes a firm more able to succeed in competing with others’. This definition includes a ‘general definition’ and also adopts a ‘competition focus’ view. 17.2 per cent of managers preferred a ‘differentiation focus’, which includes business strength and unique capability. 7.3 per cent of respondents looked at competitive advantage through a ‘customer focus’ point of view, whereas six per cent favored a ‘competition focus’ (See Table 5.1).

**Table 5.1: Concept of ‘Competitive Advantage’**

<table>
<thead>
<tr>
<th>Concept of ‘Competitive Advantage’</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) An advantage that makes a firm more able to succeed in competing with others</td>
<td>102</td>
<td>67.5%</td>
<td>67.5%</td>
</tr>
<tr>
<td>2) Business strength/unique capability</td>
<td>26</td>
<td>17.2%</td>
<td>84.7%</td>
</tr>
<tr>
<td>3) Unique value offering that customers are willing to pay a premium for</td>
<td>11</td>
<td>7.3%</td>
<td>92.0%</td>
</tr>
<tr>
<td>4) Doing better than competitors</td>
<td>9</td>
<td>6.0%</td>
<td>98.0%</td>
</tr>
<tr>
<td>5) Others</td>
<td>3</td>
<td>2.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>
When asked to rank the factors that provide competitive advantage, most managers considered ‘strong brand and image’, ‘lower operational costs’ and ‘superior customer service’ as the top three factors, with 85 per cent, 82 per cent and 80 per cent of agreement respectively. Some other issues were also considered important; namely ‘good value’ products and/or services, ‘innovative strategy’, which were cited by over 50 per cent managers (See Table 5.2).

Table 5.2: Factors that Provide Competitive Advantage in the Retail-Banking Sector

<table>
<thead>
<tr>
<th>Rank</th>
<th>Factor and Details</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Importance rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong brand and image</td>
<td>126</td>
<td>85%</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Lower operational costs</td>
<td>122</td>
<td>82%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Superior customer service</td>
<td>119</td>
<td>80%</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Good value (e.g. high interest rate on savings)</td>
<td>96</td>
<td>65%</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Innovative strategy</td>
<td>86</td>
<td>58%</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Superior customer service</td>
<td>68</td>
<td>46%</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Low cost of wholesale funds</td>
<td>63</td>
<td>43%</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Comprehensive product range</td>
<td>50</td>
<td>34%</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Large customer base</td>
<td>44</td>
<td>30%</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>High socio-demographic profile customer Base</td>
<td>25</td>
<td>17%</td>
<td>10</td>
</tr>
</tbody>
</table>

Internet Strategy

In terms of the level of Internet usage that the surveyed banks were offering, the majority of respondents believed that they were offering Internet service at a sophisticated transactional and communication level. This confirmed the results from the pilot interviews discussed in Chapter 4. Among the managers who responded to the survey, 51.7 per cent of the managers considered their banks offered sophisticated Internet services at an electronic fund transaction level. 22.5 per cent of managers chose basic online account information and interaction levels as their current level of Internet offer and 24.5 per cent of bank managers thought that their banks were offering Internet service at an advertisement and
communication level. Only two managers (1.3 per cent) indicated that they did not have Internet service yet.

This clearly indicates that as at the time the survey was conducted, most UK retail banks and building societies are using the Internet as a possible service delivery channel. Over half of the banks are providing the most sophisticated services that the Internet can provide.

The researcher also found that mainstream managers considered their banks entered the Internet arena within two years of the first mover. 17.2 per cent said that they were first movers in starting their Internet service, whereas a significant number of managers (58.3 per cent of total respondents) claimed that they were early followers whose Internet entry was within two years of the first mover. 23.8 per cent of managers believed that they had adopted a late Internet entry strategy. There were only 0.7 per cent of respondents to this question who said that they were not using the Internet at the time of the survey.

**Competitive Advantage in Retail Banking Sector**

To understand the factors that provide retail banks and building societies with competitive advantage, a set of five-point Likert questions was designed and the key results are presented below.

The majority of the managers agreed that the Internet has provided competitive advantage by reducing the cost of their operations. This mirrored the results from the pilot interviews as discussed above in Chapter 4. 81.5 per cent of the total of the respondents either “agreed” or “strongly agreed” that the Internet
had reduced operating costs. This cost reduction from using the Internet allows retail banks and building societies to offer more competitive product prices. 64.6 per cent of managers either “agreed” or “strongly agreed” with this view and only 13.2 per cent argued that this was not the case.

The respondents have positive views towards the question of whether the Internet has provided competitive advantage through enhanced customer service. 92.1 per cent of the respondents thought that the Internet has provided customers with greater convenience (either by “agreeing” or “strongly agreeing” with this view). There were also positive views of whether the Internet has enhanced customer interactions. Only 7.9 per cent of managers considered that the Internet had not provided competitive advantage by enhancing customer interactions, whereas 72.9 per cent of candidates believed it had. There were nearly 70 per cent of the managers claiming that the Internet has better fulfilled customers’ needs.

74.8 per cent of managers who responded to the survey thought that the Internet had provided retail banks and building societies with a definite competitive advantage by improving brand image (they either ‘strongly agreed’ or ‘agreed’ with the question). Only 2.6 per cent had negative views and the rest remained neutral on this subject.

Regarding customer base, the Internet tends to provide competitive advantage through attracting new customers and maintaining high profile customers (see Chapter 2). 85.4 per cent of managers believed that the Internet has offered competitive advantage by attracting new customers (either by ‘strongly agreeing’ or ‘agreeing’). 9.3 per cent did not have an opinion while only 5.3 per
cent had a negative viewpoint. In terms of maintaining high profile customers, there was a majority of 70.2 per cent of the respondents who thought that the Internet had provided a competitive advantage by helping to maintain high profile customers. Although only six per cent of managers have negative beliefs, nearly 23.8 per cent kept their position neutral on this issue.

On the whole, managers thought that the Internet provided a source of competitive advantage for retail banks and building societies for the above reasons, however, this view is not unanimous and the sustainability above is not regarded as permanent. A majority of 86.8 per cent of respondents believed that the Internet provided competitive advantage. This would probably explain the reason why managers in the UK retail-banking sector have made the Internet a priority.

**Sustainability of Competitive Advantage**

Managers who believed that the Internet has provided competitive advantage have different views when it comes to ‘sustainability’. 6.6 per cent of managers thought that the competitive advantage is not sustainable and will last under one year. 21.2 per cent of respondents are slightly more positive about this and believe the advantage will last between one to two years. 29.1 per cent of managers thought that the sustainability will last between two to five years, and 18.5 per cent took a more optimistic view that the competitive advantage will last for more than five years. 6.6 per cent of managers claimed that the sustainability of Internet competitive advantage is affected by a few factors.
17.9 per cent of respondents do not believe that the Internet has provided sustainable competitive advantage for their firms. The figure is slightly higher than (13.2 per cent) in the previous question about pure competitive advantage, which seems intuitively predictable, given that sustainable competitive advantage must by definition be more difficult to achieve than simple competitive advantage.

**Barriers to Achieving Competitive Advantage**

The barriers to achieving competitive advantage using the Internet were discussed in detail in Chapter 2 and the obstacles were revisited again at some length in the interviews in Chapter 4. When asked about the main barriers to achieving competitive advantage using the Internet, the top three issues chosen by respondents were: “customers’ acceptance and trust”, “security issues”, and “lack of human communication and interaction”, which were also the three main issues presented in the literature (see Chapter 2).

**Table 5.3: Main Barriers to Achieving Competitive Advantage Using the Internet**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
<th>Importance rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Customers’ acceptance and trust</td>
<td>77</td>
<td>52%</td>
<td>1</td>
</tr>
<tr>
<td>2) Security issues</td>
<td>69</td>
<td>47%</td>
<td>2</td>
</tr>
<tr>
<td>3) Lack of human communication and interaction</td>
<td>68</td>
<td>46%</td>
<td>3</td>
</tr>
<tr>
<td>4) Low barriers to entry</td>
<td>37</td>
<td>25%</td>
<td>4</td>
</tr>
<tr>
<td>5) Others</td>
<td>30</td>
<td>20%</td>
<td>5</td>
</tr>
<tr>
<td>6) Expensive to maintain</td>
<td>28</td>
<td>19%</td>
<td>6</td>
</tr>
<tr>
<td>7) Requires advertisements to promote</td>
<td>16</td>
<td>11%</td>
<td>7</td>
</tr>
<tr>
<td>8) Unreliable</td>
<td>6</td>
<td>4%</td>
<td>8</td>
</tr>
</tbody>
</table>

Customers’ acceptance and trust in the Internet is the key to success in the Internet banking sector according to the respondents. This was also considered to
be the biggest barrier to achieving competitive advantage using the Internet by 52 per cent of responding managers. The second most important barrier was ‘security issues’. 47 per cent of respondents considered it as a crucial impediment to success. 46 per cent of total respondents put “lack of human communication and interaction” as a top-three barrier. Mentioned by a quarter of respondents, “barriers to entry” was another key obstacle to achieving competitive advantage.

**Internet Strategy and Competitive Advantage**

There was no consensus on whether timing of entry has affected the ability to achieve competitive advantage using the Internet. Half of the managers, 51 per cent of total respondents, believed that first movers, i.e. those who started the Internet channel first and second, have gained more advantage. On the other hand, 36.4 per cent of managers stated that the game winners are the early followers, those who entered Internet market within two years after Egg started in the UK. Only 1.3 per cent considered late entries has gained more advantage.

The remaining 11.3 per cent did not consider that the timing of Internet entry would affect retail banks and building societies ability to achieve competitive advantage. One manager who answered the questionnaire claimed, “it is not about ‘when’ to enter the market, it is about ‘how’ to enter the market and ‘how’ to cope with the changes in the market”. He gave one ‘current’ example of this: “poor performance of Egg and spectacular success achieved by ING direct, a late entry to the market”. The problem with this sort of analysis is that it tends to ignore the level of ING’s profitability, given this organisation has grown rapidly by offering an extremely high deposit interest rate.
In terms of the level of Internet usage, a majority of managers (80.1 per cent) agreed that retail banks whose Internet usages were at sophisticated transaction level have gained more competitive advantage. 12.6 per cent of respondents thought banks with basic Internet offerings have achieved more competitive advantage and only 7.3 per cent believed that those with Internet strategies at advertisement and communicational level have done so.

5.3 FACTOR ANALYSIS

In order to determine how best to operationalise the measures employed in the current study, data were factor analysed utilising Varimax rotation. Then a selection of factors with eigenvalues greater than one was performed. Following Chin et al. (1997) and Nunally and Berstein (1997), a combination of the Kaiser-Guttman Rule (Eigenvalues greater than one) and scree plot were utilised to determine the most appropriate component solution. This approach was explained and contextualised in the Factor Analysis section of 3.5.8.

5.3.1 Result of Factor Analysis

Table 5.4 shows the results of the factor analysis; the “total variance explained” shows the eigenvalues, which as discussed below, are the proportion of total variance in all the variables accounted for by that factor.
Table 5.4: Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>3.126</td>
<td>34.787</td>
</tr>
<tr>
<td>2</td>
<td>1.229</td>
<td>15.357</td>
</tr>
<tr>
<td>3</td>
<td>1.071</td>
<td>13.390</td>
</tr>
<tr>
<td>4</td>
<td>.869</td>
<td>7.627</td>
</tr>
<tr>
<td>5</td>
<td>.627</td>
<td>6.970</td>
</tr>
<tr>
<td>6</td>
<td>.587</td>
<td>6.523</td>
</tr>
<tr>
<td>7</td>
<td>.546</td>
<td>6.065</td>
</tr>
<tr>
<td>8</td>
<td>.472</td>
<td>5.248</td>
</tr>
<tr>
<td>9</td>
<td>.353</td>
<td>4.032</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

The eigenvalue for a given factor measures the variance in all of the variables, which is accounted for by that factor (Hair et al., 1998). The ratio of eigenvalues is the ratio of explanatory importance of the factors with respect to the variables. If a factor has a low eigenvalue, then it is contributing little to the explanation of variances in the variables and may be ignored as redundant compared with more important factors in the survey. A factor’s eigenvalue is computed as the sum of its squared factor loadings for all the variables. A factor’s eigenvalue divided by the number of variables (which equals the sum of variances because the variance of a standardised variable equals 1) is the percent of variance in all the variables, which that particular factor explains. The ratio of eigenvalues is the ratio of the explanatory importance of the factors with respect to the variables.

Table 5.4 shows nine factors, one for each variable. However, only the first three are extracted for analysis because, under the extraction options, SPSS uses Kaiser’s Criterion to extract factors. Kaiser's Criterion, states that, as many factors should be extracted as there are variables with eigenvalues greater than, or equal to
one (Hair et al., 1998:111). The rationale behind this criterion is that the interpretation of proportions of variance, smaller than the variance contribution of a single variable, are of dubious value. Kaiser’s Criterion is the most frequently used, since it does not require visual inspection of eigenvalue plots and is easily computerised. Kaiser’s Criterion analysis revealed three components with Eigenvalues exceeding 1 (2.783, 1.229 and 1.071), which explained a total of 63.5 per cent of the variance. In a good factor analysis, a few factors explain a substantial portion of the variance and the remaining factors explain a relatively small amount of the variance. This is the case with these results. Even through there is no absolute threshold that can be adopted, in social sciences where information is often not as precise as in the natural sciences, a combination of factors that accounts for 60 per cent of the total variance (and in some cases even less), is deemed satisfactory (Hair et al., 1998).

This process was visually corroborated by a Scree plot (See Figure 5.1). The Scree test involves plotting each of the eigenvalues of the factors and inspecting the plot to find a point at which the shape of the curve changes direction and becomes horizontal. The Scree plot revealed a clear break after the two components, see table below, with components one, two and three capturing much more of the variance than the remaining components. Component two is the elbow, the sharp drop off of the slope, which indicates that factor one and two have more significance than factor three.
Although three factors were identified by Kaiser's Criterion analysis and confirmed in the Scree Plot, it is difficult to generate definitions and meanings of factors from the unrotated pattern. Therefore, Varimax rotation was used to minimise the number of variables. It was used because it typically produces an orthogonal set of interpretable dimensions (Kaiser and Coffrey, 1965). Varimax rotation, which is commonly used, cleans up the factors as follows: for each factor, high loadings (correlations) will result for a few variables; the rest will be near zero. It maximises the variances of squared loadings (i.e., correlations of items with factors) that accounted for the highest load and therefore it minimises the number of variables that have high loadings on any one given factor. The criteria for the significance of factor loadings can be found in Hair et al. (1998:111). They suggest that when the sample size is 100 or larger (in this case, the sample size is 151), factor loadings greater than + .30 are considered to meet the minimal level,
loadings of +.40 are considered more important and when the loadings are +.50 or greater, they are considered to be of practical significance. The larger the absolute size of the factor loading, the more important the loading is in interpreting the factor matrix. Using these criteria, representative variables with high loadings of each factor are selected, which makes it as easy as possible to identify each variable with a single factor. The cut off point for the purposes of interpreting this analysis is set at all loadings +.50 or above, which is a conservatively high cut off (Hair et al., 1998:126).

**Table 5.5: Rotated Component Matrix**

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Differentiation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand</td>
<td>.776</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Base-high socio-demographic</td>
<td>.769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer interaction</td>
<td>.516</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer convenience</td>
<td>-.572</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>-.680</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2: Cost Leadership</td>
<td></td>
<td>.885</td>
<td></td>
</tr>
<tr>
<td>Cost Reduction-- marketing, training, advertisements, maintenance etc. cost.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Reduction -- Operating</td>
<td></td>
<td>-.679</td>
<td></td>
</tr>
<tr>
<td>Factor 3: Product Uniqueness</td>
<td></td>
<td></td>
<td>.783</td>
</tr>
<tr>
<td>Product Range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross Selling</td>
<td>.737</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


a. Rotation converged in 5 iterations. Only factor loadings >0.5 are included.
The "Rotated Component Matrix" above (see table 5.5) gives the factor loadings, which is the central output of the factor analysis. The factor loadings are the correlation coefficients between the variables (rows) and factors (columns). Three components were obtained using Varimax rotation, corresponding to eigenvalues of greater than unity. The factor loadings are the basis for imputing a label onto the different factors. Here, three factors are labeled as: differentiation, cost leadership and product uniqueness.

Table 5.6: Items in Survey Instrument

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>The Internet has improved my company's image.</td>
</tr>
<tr>
<td></td>
<td>The Internet has helped to attract and retain high socio-demographic profile customers.</td>
</tr>
<tr>
<td></td>
<td>The Internet has improved service quality.</td>
</tr>
<tr>
<td></td>
<td>The Internet has provided convenience for customers.</td>
</tr>
<tr>
<td></td>
<td>The Internet has enhanced customer interactions.</td>
</tr>
<tr>
<td>Cost Leadership</td>
<td>The Internet has reduced the cost of marketing, training, advertisements, maintenance etc.</td>
</tr>
<tr>
<td></td>
<td>The Internet has reduced operating costs.</td>
</tr>
<tr>
<td>Product Uniqueness</td>
<td>Retail banks that offer a more comprehensive product range gain a greater advantage from the Internet.</td>
</tr>
<tr>
<td></td>
<td>The Internet facilitates cross-selling of products and services.</td>
</tr>
</tbody>
</table>

The three factors solution explained a total of 63.5 per cent of the variance, with component 1 contributing 34.8 per cent, component 2 contributing 15.4 per cent and component 3 contributing 13.4 per cent. The rotated solution reveals the presence of a simple structure with all three components exhibiting a number of
strong loadings. The meaning and implication of each factor will be discussed in detail in Chapter six.

5.3.2 The Assessment of Reliability

Reliability is a way to characterise the quality of scores used in research. Reliability assessments are performed in order to examine the repeatability or stability of scores. There are several types of reliability are defined in the literature and among these is internal consistency. Internal consistency reliability is used to assess the quality of scores composed of several components (in this case, item) that are assessed at a single point in time. Items in the questionnaire underwent the reliability analysis in accordance with the three factors extracted.

A test of reliability, which involves assessing the amount of variance captured by a construct’s measures in relation to the amount of variance due to measurement error, was also performed (Fornell and Larcker, 1981). Discriminant validity can be assessed by comparing the average variance extracted (AVE) values associated with each construct with the correlations among the various constructs (Staples et al., 1999). AVE measures the “percentage of variance captured by a construct by showing the ratio of the sum of the variance captured by the construct and its measurement variance” (Gefen et al., 2000:66) and can be calculated using the following equation:-

\[
AVE = \frac{\sum \lambda_i^2}{[\sum \lambda_i^2 + \sum(1-\lambda_i^2)]}
\] (1)
Table 5.7: Average Variance Extracted for Each Factor

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Average variance extracted for each factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>0.74</td>
</tr>
<tr>
<td>Cost Leadership</td>
<td>0.66</td>
</tr>
<tr>
<td>Product Uniqueness</td>
<td>0.53</td>
</tr>
</tbody>
</table>

To maintain reliability, the variance extracted by the construct’s AVE should be greater than 0.50. All the AVE values for the three factors exceed 0.50 (see Table 5.7) and the results are therefore deemed acceptable.

There are a total of nine dependent variables identified in the literature. Each dependent variable was measured using five point Likert scale questionnaires and factor analysed. These variables were measure by 14 items included in the questionnaire. As a way of avoiding the response biases connected with multi-item scales that are worded in a single direction, five different questionnaires which reverse the direction of the questions were used for the dependent variables (Churchill, 1979). Although mixed-worded questionnaires may reduce the risks of response biases, to some extent reverse wording items show lower reliability and weaker item-to-total correlations than their positive-worded counterparts (Cronbach 1942; Benson and Hocevar, 1985). Hence, approximately 35 per cent of 14 dependent variable associated questionnaires were reverse worded.

There are three factors derived from the factor analysis, namely differentiation, cost leadership, and product uniqueness, which explain a total of 63.5 per cent of the variance. Outcome factor one is classified as ‘differentiation’ and it is heavily loaded on five dependent variables (brand image, service quality, customer convenience, customer interaction, retaining high profile customers).
Factor two is classified as ‘cost leadership’ and is loaded on the two dependent variables of *marketing cost reduction and operational cost reduction*. The third factor, product uniqueness, is also heavily loaded on two variables: *product range* and *product cross selling*.

The data was factor analysed in order to create a composite view of the variables and measure the interaction between the selected variables. Although the result of the factor analysis sums up the main factors making up managers’ perception of competitive advantages that are achieved by using the Internet, the result does not allow the researcher to fully test the hypothesis discussed in Chapter two. To fully understand the information collected from the managers and test the hypothesis accurately, the research chose to analyse each factor individually. This method provides a highly detailed look into the information that was requested and the decisions that each manager, while eliminating analysing the possible influences that may have been caused by the variables.

In addition, in the reliability analysis presented above, it was shown that the reliabilities for the nine individual measures were higher than those of the three composite factors.

Therefore, the decision was made to use the set of nine dependent variables which were discussed in detail in Chapter three.
5.4 HYPOTHESIS TEST RESULTS

In this section the results of the statistical analyses related to the 25 specific research hypotheses of this study are presented. These hypotheses are listed again (see Table 2.6) for ease of reference.

The bivariate regression method was used to test research hypotheses. There is one dependent variable and one independent variable in bivariate regression and the relationship between the two is represented by a straight line.

Bivariate linear regression analysis involves finding the best fitting straight line to describe a pair of data. It is based on the linear model, Y = a + bX + e. Every Y score is made up of two components: a + bX, which is the linear effect of X on Y, and 'e' stands for error. In the study, X is the independent variable value and Y is the dependent/response variable value for observation.

Bivariate linear regression was chosen over multivariate regression due to its more straightforward calculation method and its ability to better illustrate the statistical patterns in the underlying data. The primary concern of this hypothesis is whether or not the two variables are mathematically related and if one predicts the other. Although bivariate regression has its limits to manage the impact of other relevant factors on the dependent variable, it provides an accurate analysis of the data needed to test the research hypotheses. Bivariate regression also allowed the researcher to study the mediation model, i.e. if the independent variables predict the dependent variables, if the mediator variables predict the dependent variables, and if the mediator variables predict the dependent variables.
<table>
<thead>
<tr>
<th>Hypothesis Number</th>
<th>Detailed Research Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a:</td>
<td>Bigger banks tend to have a higher level of Internet usage.</td>
</tr>
<tr>
<td>1b:</td>
<td>Retail banks tend to have a higher level of Internet usage than building societies.</td>
</tr>
<tr>
<td>2a:</td>
<td>Bigger banks tend to enter the Internet arena earlier.</td>
</tr>
<tr>
<td>2b:</td>
<td>Retail banks tend to enter Internet arena earlier than building societies.</td>
</tr>
<tr>
<td>3a:</td>
<td>Managers from bigger banks tend to consider that the Internet has provided more competitive advantage to larger banks by a superior relative reduction in cost than managers from smaller banks.</td>
</tr>
<tr>
<td>3b:</td>
<td>Managers from retail banks tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from building societies.</td>
</tr>
<tr>
<td>3c:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
</tr>
<tr>
<td>3d:</td>
<td>Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
</tr>
<tr>
<td>4a:</td>
<td>Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
</tr>
<tr>
<td>4b:</td>
<td>Managers from retail banks tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
</tr>
<tr>
<td>4c:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
</tr>
<tr>
<td>4d:</td>
<td>Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage of brand image improvement.</td>
</tr>
<tr>
<td>5a:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving service quality.</td>
</tr>
<tr>
<td>5b:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving service quality.</td>
</tr>
<tr>
<td>5c:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience.</td>
</tr>
<tr>
<td>5d:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience.</td>
</tr>
</tbody>
</table>
5e: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving customer interaction.

5f: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving customer interaction.

6a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by attracting more new customers.

6b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by attracting more new customers.

6c: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by attracting more new customers.

6d: Managers from big banks tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

6e: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

7a: Managers from big banks tend to consider that the Internet has provided more competitive advantage through greater products cross selling.

7b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage through greater products cross selling.
5.4.1 Hypotheses 1a and 1b

The first two hypotheses (Hypotheses 1a and 1b) deal with the bivariate relationships between bank size and the level and timing of internet entry. Bank type was dummy coded as ‘0’=building societies and ‘1’=retail bank, while size of bank was either ‘1’=small, ‘2’=medium, and ‘3’=large. Hypothesis 1a was “Bigger banks tend to have a higher level of Internet usage. The results from Table 5.8 indicate that size of bank had a statistically significant effect on level of Internet usage, and the sign of the regression coefficients (i.e. positive) indicates that bigger banks do tend to have a higher level of Internet usage. Hypothesis 1b was: Retail banks tend to have a higher level of Internet usage than building societies. Again, Table 5.8 shows that there was a statistically significant effect of type of bank on level of Internet usage. Given the sign of the regression coefficients, we can conclude that retail banks do, in fact, tend to have a higher level of Internet usage. Therefore, the results from the first two hypothesis tests indicate that (a) larger banks had a higher level of Internet usage and (b) retail banks had a higher level of Internet usage, as predicted.

Table 5.8: Regression of Level of Internet Usage on Bank Size and Type

<table>
<thead>
<tr>
<th>Variables of bank predicting level of Internet usage</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting level of Internet usage</td>
<td>.366</td>
<td>86.131</td>
<td>.743</td>
<td>.080</td>
<td>.605</td>
<td>9.281</td>
<td>.000***</td>
<td>1a-Not rejected</td>
</tr>
</tbody>
</table>

| Type of bank predicting level of Internet usage     | .363    | 84.728 | 1.054 | .115       | .602 | 9.205   | .000***| 1b-Not rejected   |

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or lower would be considered significant, and significance levels .05 and .10 would be considered marginal.
5.4.2 Hypotheses 2a and 2b

Table 5.9 shows the results of the two bivariate regression analyses performed to address Hypotheses 2a and 2b. Hypothesis 2a was: Bigger banks tend to enter the Internet arena earlier. Size of bank had a statistically significant relationship with timing of internet entry, with the positive regression coefficients indicating that larger banks tended to start earlier on the Internet. Hypothesis 2b was: Retail banks tend to enter the Internet market earlier than building societies banks. Again, the relationship between type of bank and timing of Internet entry was statistically significant and positive; indicating that retail banks entered the Internet market earlier than building societies banks. In summary, the analyses performed for Hypotheses 2a and 2b indicated that retail banks tended to have a higher level of Internet usage and earlier entry into the Internet market.

Table 5.9: Regression of Timing of Internet Entry on Bank Size and Type

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting timing of Internet entry</td>
<td>.122</td>
<td>20.611</td>
<td>.323</td>
<td>.071</td>
<td>.349</td>
<td>4.540</td>
<td>.000***</td>
<td>2a-Not rejected</td>
</tr>
<tr>
<td>Type of bank predicting timing of Internet entry</td>
<td>.130</td>
<td>22.352</td>
<td>.478</td>
<td>.101</td>
<td>.361</td>
<td>4.728</td>
<td>.000***</td>
<td>2b-Not rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or lower would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.4.3 Hypotheses 3a through 3d

Hypotheses 3a through 3d addressed the relationships between four predictor variables (size of bank, type of bank, level of Internet usage, and timing
of Internet entry) on the one hand, and perceived cost-reduction on the other. Table 5.10 presents the results of the four bivariate regression analyses performed to address these four hypotheses.

Table 5.10: Regression of Cost Reduction on Size of Bank, Type of Bank, Level of Internet Usage, and Timing of Internet Entry

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting cost reduction</td>
<td>.186</td>
<td>34.023</td>
<td>.557</td>
<td>.096</td>
<td>.431</td>
<td>5.833</td>
<td>.000 ***</td>
<td>3a-Not rejected</td>
</tr>
<tr>
<td>Type of bank predicting cost reduction</td>
<td>.075</td>
<td>12.159</td>
<td>.506</td>
<td>.145</td>
<td>.275</td>
<td>3.487</td>
<td>.001 ***</td>
<td>3b-Not rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting cost reduction</td>
<td>.162</td>
<td>28.864</td>
<td>.424</td>
<td>.079</td>
<td>.403</td>
<td>5.373</td>
<td>.000 ***</td>
<td>3c-Not rejected</td>
</tr>
<tr>
<td>Timing of internet entry predicting cost reduction</td>
<td>.098</td>
<td>1.44</td>
<td>.136</td>
<td>.114</td>
<td>.098</td>
<td>1.201</td>
<td>.232</td>
<td>3d-Rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

Hypothesis 3a was: Managers from bigger banks tend to consider that the Internet has provided more competitive advantage to larger banks by a superior relative reduction in cost than managers from smaller banks. The first regression analysis in Table 5.10 shows that size of bank was related to cost reduction, and the sign of the regression coefficients indicates that larger banks had higher cost reductions. Hypothesis 3b was: Managers from retail banks tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from building societies. Type of bank was statistically significant as a predictor of cost reduction in the second regression analysis presented in Table.
5.11, indicating that managers at retail banks perceived more of a cost reduction advantage than managers at building societies banks.

Hypothesis 3c was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by greater cost reduction. The results from the third regression analysis in Table 5.10 indicate that level of Internet usage was predictive of a cost reduction advantage, and the positive sign of the regression coefficients indicates that higher level of Internet usage were associated with more of a cost reduction advantage. Hypothesis 3d was: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by greater cost reduction. The fourth and final set of regression results in Table 5.10 show that timing of Internet entry was not predictive of cost reduction, meaning that banks that entered the Internet market sooner did not see a higher level of cost reduction than banks that entered the Internet market later. In summary, the results of the regression analyses performed for Hypotheses 3a through 3d indicated that larger banks, retail banks, and banks with higher levels of Internet usage all saw a greater competitive advantage in terms of cost reduction, but that the timing of entry into the Internet market was not related to cost reduction.

5.4.4 Hypotheses 4a through 4d

The next set of hypotheses, Hypotheses 4a through 4d, addressed the prediction of a competitive advantage related to brand image from size of bank, type of bank, level of Internet usage, and timing of Internet entry. Four bivariate regression analyses were performed to address these four hypotheses, with results
shown in Table 5.11. Hypothesis 4a was: Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by improving brand image. Results from the first regression analysis in Table 5.11 show that size of bank was predictive of brand image, with larger banks having a higher competitive advantage due to brand image. Hypothesis 4b was: Managers from retail banks tend to consider that the Internet has provided more competitive advantage by improving brand image. The second regression analysis in Table 5.11 shows that type of bank was related to brand image, with the sign of the regression coefficient indicating that retail banks had more of a competitive advantage related to brand image.

Table 5.11: Regression of Brand Image on Size of Bank, Type of Bank, Level of Internet Usage, and Timing of Internet Entry

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting brand image</td>
<td>.167</td>
<td>29.875</td>
<td>.465</td>
<td>.085</td>
<td>.409</td>
<td>5.466</td>
<td>.000 ***</td>
<td>4a- Not rejected</td>
</tr>
<tr>
<td>Type of bank predicting brand image</td>
<td>.064</td>
<td>10.181</td>
<td>.411</td>
<td>.129</td>
<td>.253</td>
<td>3.191</td>
<td>.002 ***</td>
<td>4b- Not rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting brand image</td>
<td>.190</td>
<td>34.846</td>
<td>.404</td>
<td>.068</td>
<td>.435</td>
<td>5.903</td>
<td>.000***</td>
<td>4c- Not rejected</td>
</tr>
<tr>
<td>Timing of internet entry predicting brand image</td>
<td>.081</td>
<td>13.097</td>
<td>.349</td>
<td>.096</td>
<td>.284</td>
<td>3.619</td>
<td>.000***</td>
<td>4b- Not rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

Hypothesis 4c was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage
by improving brand image. The third regression analysis presented in Table 5.11 indicates that level of Internet usage was predictive of brand image, with higher levels of Internet usage associated with more of a competitive advantage regarding brand image. Finally, Hypothesis 4d was: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage of brand image improvement. The final regression analysis presented in Table 5.11 indicated that timing of Internet entry was related to brand image, with earlier entry into the Internet market associated with a higher level of competitive advantage related to brand image. In summary, results related to Hypothesis 4a through 4d indicated that larger banks, retail banks, banks with a higher level of Internet usage, and banks with earlier entry into the Internet market all had more of a competitive advantage related to brand image.

5.4.5 Hypotheses 5a through 5f

Hypotheses 5a and 5b involved bank size and level of Internet usage as predictors of a competitive advantage related to service quality. The results of the two bivariate regression analyses performed to address these two hypotheses are presented in Table 5.12. Hypothesis 5a was: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving service quality. The results of the regression analysis performed to test this hypothesis are shown in the top section of Table 5.12. While there was a statistically significant relationship between size of bank and service quality, the sign of the regression coefficient indicates that the relationship was in the opposite direction as predicted. Specifically, the negative sign of the regression coefficient
indicates that smaller banks tended to have more of a competitive advantage due to improved service quality. Hypothesis 5b was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving service quality. The second regression analysis in Table 5.12 indicates that level of Internet usage had a statistically significant effect on service quality, with the sign of the regression coefficient indicating that banks with a higher level of Internet usage had more of a competitive advantage related to improved service quality.

Table 5.12: Regression of Service Quality on Size of Bank and Level of Internet Usage

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting service quality</td>
<td>.150</td>
<td>26.369</td>
<td>-.513</td>
<td>.100</td>
<td>-.388</td>
<td>-5.135</td>
<td>.000***</td>
<td>5a-Rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting service quality</td>
<td>.146</td>
<td>25.450</td>
<td>.411</td>
<td>.082</td>
<td>.382</td>
<td>5.045</td>
<td>.000***</td>
<td>5b-Not rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

Hypotheses 5c and 5d related to the bank size and level of Internet usage as predictors of greater customer convenience. Table 5.13 shows the results of the two bivariate regression analyses performed to address these two hypotheses. Hypothesis 5c was: Managers from big banks tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience. The first regression analysis in Table 5.13 shows that there was a statistically significant relationship between size of bank and customer convenience, but again the relationship was in the opposite direction as predicted: smaller banks had a
higher competitive advantage due to customer convenience. Hypothesis 5d was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by offering customer greater convenience. The second regression analysis in Table 5.13 shows that level of Internet usage was predictive of customer convenience in the predicted direction: a higher level of Internet usage was related to higher levels of customer convenience.

### Table 5.13: Regression of Customer Convenience on Size of Bank and Level of Internet Usage

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting customer convenience</td>
<td>.076</td>
<td>12.186</td>
<td>-.296</td>
<td>.085</td>
<td>-.275</td>
<td>-3.491</td>
<td>.001***</td>
<td>5c- Rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting customer convenience</td>
<td>.098</td>
<td>16.270</td>
<td>.275</td>
<td>.068</td>
<td>.314</td>
<td>4.034</td>
<td>.000***</td>
<td>5d- Not rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level. Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

Hypotheses 5e and 5f dealt with bank size and level of Internet usage as predictors of a competitive advantage due to improved customer interaction, and the results of the two regression analyses performed to examine these hypotheses are shown in Table 5.14. Hypothesis 5e was: Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving customer interaction. The first regression analysis in Table 5.14 shows that there was a statistically significant relationship between the size of the bank and customer interaction. However, the direction of the relationship was the opposite of what was predicted: smaller banks had a larger competitive advantage due to
customer interaction than larger banks. Hypothesis 5f was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving customer interaction. Level of internet usage was related to customer interaction (with results shown in the bottom section of Table 5.14), and in the predicted direction: banks with a higher level of Internet usage had more of a competitive advantage due to customer interactions.

Table 5.14: Regression of Customer Interaction on Size of Bank and Level of Internet Usage

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting customer interaction</td>
<td>.092</td>
<td>15.042</td>
<td>-.389</td>
<td>.100</td>
<td>-.303</td>
<td>-3.878</td>
<td>.000***</td>
<td>5e-Rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting customer interaction</td>
<td>.113</td>
<td>19.016</td>
<td>.352</td>
<td>.081</td>
<td>.336</td>
<td>4.361</td>
<td>.000***</td>
<td>5f-Not rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level. Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

In summary, the regression analyses performed to address Hypotheses 5a through 5f resulted in the following findings. First, smaller banks tended to have more of a competitive advantage due to improved service quality (Hypothesis 5a), improved customer convenience (Hypothesis 5c), and improved customer interactions (Hypothesis 5e) than larger banks, which was the opposite of the predictions. Second, higher levels of Internet usage were associated with more of a competitive advantage due to improved service quality (Hypothesis 5b), improved customer convenience (Hypothesis 5d), and improved customer interactions (Hypothesis 5f), as predicted.
5.4.6 Hypotheses 6a through 6c

Hypotheses 6a through 6c addressed the prediction of a competitive advantage due to attracting new customers from bank size, level of Internet usage, and timing of Internet entry. Results of the three bivariate regression analyses performed to examine these hypotheses are shown in Table 5.15. Hypothesis 6a was: Managers from big banks tend to consider that the Internet has provided more competitive advantage by attracting more new customers. However, the results of the first regression analysis in Table 5.15 shows that the size of the bank was not related to attracting new customers. Hypothesis 6b was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by attracting more new customers. The second regression analysis from Table 5.15 shows that level of Internet usage was predictive of attracting new customers, and in the predicted direction: banks with a higher level of Internet usage had more of a competitive advantage through attracting new customers. Hypothesis 6c was: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by attracting more new customers. However, the final regression analysis in Table 5.15 shows that timing of Internet entry was not predictive of attracting new customers.
Table 5.15: Regression of Attracting New Customers on Size of Bank, Level of Internet Usage, and Timing of Internet Entry

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting new</td>
<td>.009</td>
<td>1.357</td>
<td>.104</td>
<td>.090</td>
<td>.095</td>
<td>1.165</td>
<td>.246</td>
<td>Rejected</td>
</tr>
<tr>
<td>customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6a-</td>
</tr>
<tr>
<td>Level of Internet usage</td>
<td>.069</td>
<td>11.110</td>
<td>.236</td>
<td>.071</td>
<td>.263</td>
<td>3.333</td>
<td>.001***</td>
<td>Not</td>
</tr>
<tr>
<td>predicting new</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>rejected</td>
</tr>
<tr>
<td>customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6b-</td>
</tr>
<tr>
<td>Timing of Internet entry</td>
<td>.007</td>
<td>1.021</td>
<td>.098</td>
<td>.097</td>
<td>.083</td>
<td>1.011</td>
<td>.314</td>
<td>Rejected</td>
</tr>
<tr>
<td>predicting new</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6c-</td>
</tr>
<tr>
<td>customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

Hypotheses 6d and 6e related to the ability of bank size and level of Internet usage to predict a competitive advantage through retaining high profile customers.

The results of the two bivariate regression analyses performed to address these two hypotheses are shown in Table 5.16. Hypothesis 6d was: Managers from big banks tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers. The results from the first regression analysis presented in Table 5.16 show that the size of the bank was predictive of retaining high profile customers in the expected direction: bigger banks tended to have more of a competitive advantage related to retaining high profile customers than smaller banks. Hypothesis 6e was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers. The second set of regression results in Table 5.16 show that level of Internet usage was related to retaining high profile customers: banks with higher levels of Internet usage had more of a
competitive advantage related to retaining high profile customers than banks with lower levels of Internet usage.

Table 5.16: Regression of Retaining High Profile Customers on Size of Bank, Level of Internet Usage, and Timing of Internet Entry

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting high profile customers</td>
<td>.091</td>
<td>14.989</td>
<td>.328</td>
<td>.085</td>
<td>.302</td>
<td>3.872</td>
<td>.000***</td>
<td>6d-Not rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting high profile customers</td>
<td>.294</td>
<td>62.082</td>
<td>.479</td>
<td>.061</td>
<td>.542</td>
<td>7.879</td>
<td>.000***</td>
<td>6e-Not rejected</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

In summary, level of Internet usage was positively related to a competitive advantage through attracting new customers (Hypothesis 6b) but size of bank (Hypothesis 6a) and timing of Internet entry (Hypothesis 6c) were not related to attracting new customers. In addition, both bank size (Hypothesis 6d) and level of Internet usage (Hypothesis 6e) were positively related to having a competitive advantage through retaining high profile customers.

5.4.7 Hypotheses 7a and 7b

The final two hypotheses, Hypothesis 7a and Hypothesis 7b, related to the prediction of a competitive advantage through greater product cross selling by size of bank and level of Internet usage. Table 5.17 shows the results of the two bivariate regression analyses performed to examine these two hypotheses. Hypothesis 7a was: Managers from big banks tend to consider that the Internet has
provided more competitive advantage through greater products cross selling. The results of the first regression analysis shown in Table 5.17 indicate that the size of the bank was related to product cross selling in the expected direction: larger banks had more of a competitive advantage through product cross selling than smaller banks. Hypothesis 7b was: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage through greater products cross selling. The second regression analysis in Table 5.17 shows that higher levels of Internet usage were related to cross selling. In summary, both the size of the bank (Hypothesis 7a) and the level of Internet usage (Hypothesis 7b) were associated with more of a competitive advantage due to product cross selling.

<table>
<thead>
<tr>
<th>Variables</th>
<th>R square</th>
<th>F</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of bank predicting cross selling</td>
<td>.064</td>
<td>10.160</td>
<td>.309</td>
<td>.097</td>
<td>.442</td>
<td>3.187</td>
<td>.002***</td>
<td>7a- Not rejected</td>
</tr>
<tr>
<td>Level of Internet usage predicting cross selling</td>
<td>.033</td>
<td>5.126</td>
<td>.182</td>
<td>.080</td>
<td>.182</td>
<td>2.264</td>
<td>.025</td>
<td>7b- Not rejected</td>
</tr>
</tbody>
</table>

* = Significant at the 0.10 level; ** = Significant at the 0.05 level; *** = Significant at the 0.01 level. Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.5 MEDIATION TESTING

5.5.1 Mediation Testing Model

In addition to the bivariate regression analyses described in Section 5.4 as direct tests of the research hypotheses in the current study, potential mediation effects were also of interest. In this section, the mediation research model is
presented and then a four-step approach is introduced in the course of establishing mediation. Mediation occurs when there is interdependency between two variables as they influence the dependent variable. The research model discussed previously in Chapter 2 identifies a three variable system see Figure 5.2.

**Figure 5.2: Mediation Model**

![Mediation Model Diagram]

In the current study, there are two independent variables (size of bank and type of bank), two potential mediator variables (level of Internet usage and timing of Internet entry), and eight dependent variables (cost reduction, brand image, service quality, customer convenience, customer interaction, attracting new customers, retaining high profile customers, and cross-selling). Thus there are 2 (independent variables) X 2 (mediator variables) X 8 (dependent variables) = 32 possible tests of mediation.

In Figure 5.2, there are two paths feeding into the outcome variable, the direct impact of the independent variables on the dependent variables (path a) and the indirect path from independent variables to the dependent variables via
mediator variables (path b). There is also a relationship between the mediator variables and the dependent variables (path c). As Baron and Kenny (1986:1177) state:

To establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation. If these conditions all hold in the predicted direction, then the effect of independent on the dependent variable must be less in the third equation than in the second equation. Perfect mediation holds if the independent variable has no effect when the mediator is controlled.

Judd and Kenny (1981) and Baron and Kenny (1986) designed a four-step approach in establishing mediation:

Step 1: Show that the independent variables are correlated with the dependent variables. Use Y as the criterion variable in a regression equation and X as a predictor (estimate and test path a). This step establishes that there is an effect that may be mediated.

\[ Y = aX + e1 \] (2)

Step 2: Show that the independent variable is correlated with the mediator. Use M as the criterion variable in the regression equation and X as a predictor (estimate and test path b). This step essentially involves treating the mediator as if it were a dependent variable.

\[ M = bX + e2 \] (3)
Step 3: Show that the mediator affects the outcome variable. Use Y as the
criterion variable in a regression equation and X and M as predictors (estimate and
test path c). It is not sufficient just to correlate the mediator with the outcome; the
mediator and the outcome may be correlated because they are both caused by the
independent variable X. Thus, the independent variable must be controlled in
establishing the effect of the mediator on the dependent variables.

\[ Y = a'X + cM + \epsilon_3 \]  \hspace{1cm} (4)

Step 4: To establish that M completely mediates the X-Y relationship, the
effect of X on Y controlling for M should be zero (estimate and test path c'). The
effects in both Steps 3 and 4 are estimated in the same regression equation. If the
effect of X on Y is zero when the mediator is included (c' = 0), there is evidence
for mediation (Judd and Kenny, 1981). This would be full mediation. If the effect
of X on Y is reduced when the mediator is included (c' < c), then the direct effect is
considered to be partially mediated.

Many of the tests of mediation performed in this study involve some of the
same analyses. For example, the mediation of the relationship between size of
bank and cost reduction by level of Internet usage, and the mediation of the
relationship between size of bank and cost reduction by timing of Internet entry
both require statistical significance for the relationship between size of bank
(independent variable) and cost reduction (dependent variable) in Step 1.
Therefore, there is some redundancy in the analyses, and the results will be
described in such a way as to minimize this redundancy in the presentation of the results.

5.5.2. Mediation Tests Involving Cost Reduction as the Dependent Variable

The first set of mediation tests were performed using cost reduction as the dependent variable, and there are four such tests (one test for each possible combination of the two independent variables and two mediator variables). In terms of the correlations between the independent variables and the dependent variable (Step 1 of the mediation testing process), the correlation between size of bank and cost reduction was statistically significant \( r = 0.431, p < 0.001 \), as was the correlation between type of bank and cost reduction \( r = 0.275, p = 0.001 \). For the correlations between the independent variables and the mediators (Step 2 of the mediation testing process), all four correlations were statistically significant: size of bank was correlated with level of Internet usage \( r = 0.605, p < 0.001 \) and timing of Internet entry \( r = 0.348, p < 0.001 \), and type of bank was correlated with level of Internet usage \( r = 0.602, p < 0.001 \) and timing of Internet entry \( r = 0.361, p < 0.001 \). Therefore, each of the four possible mediation effects involving cost reduction as the dependent variable met the conditions in Steps 1 and 2 of the mediation testing process. That is, the effect of size of bank on cost reduction may be mediated by level of Internet usage or timing of Internet entry, and the effect of type of bank on cost reduction may be mediated by level of Internet usage or timing of Internet entry. Steps 3 and 4 of the mediation testing process for analyses involving cost reduction as the dependent variable are addressed next.
Table 5.18 presents the summary results of the four bivariate regression analyses corresponding to mediation tests involving cost reduction as the dependent variable. For the first test of mediation (the mediation of the effect of size of bank on cost reduction by level of Internet usage), the first regression analysis in Table 5.18 indicates that the inclusion of level of Internet usage in Model 2 was statistically significant, satisfying the condition for Step 3 of mediation testing. That is, level of Internet entry was statistically significant when controlling for size of bank.

### Table 5.18: Tests of Step 3 in the Mediation Analyses Involving Cost Reduction as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig. F Change</td>
</tr>
<tr>
<td><strong>Size of Bank, Level of Internet Usage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.371(a)</td>
<td>.138</td>
<td>.132</td>
<td>.823</td>
<td>.138</td>
</tr>
<tr>
<td>2</td>
<td>.466(b)</td>
<td>.217</td>
<td>.206</td>
<td>.787</td>
<td>.079</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Size of Bank, Timing of Internet Entry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.371(a)</td>
<td>.138</td>
<td>.132</td>
<td>.823</td>
<td>.138</td>
</tr>
<tr>
<td>2</td>
<td>.372(b)</td>
<td>.138</td>
<td>.127</td>
<td>.826</td>
<td>.001</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type of Bank, Level of Internet Usage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.359(a)</td>
<td>.129</td>
<td>.123</td>
<td>.827</td>
<td>.129</td>
</tr>
<tr>
<td>2</td>
<td>.472(b)</td>
<td>.223</td>
<td>.212</td>
<td>.784</td>
<td>.093</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type of Bank, Timing of Internet Entry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.359(a)</td>
<td>.129</td>
<td>.123</td>
<td>.827</td>
<td>.129</td>
</tr>
<tr>
<td>2</td>
<td>.363(b)</td>
<td>.131</td>
<td>.120</td>
<td>.829</td>
<td>.002</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.
The second mediation test in this section tested the hypothesis that level of Internet usage mediated the relationship between size of bank and cost reduction. The second regression analysis in Table 5.18 shows that the addition of level of Internet usage did improve the prediction of cost reduction. Therefore, the condition of Step 3 in the analysis of the mediation of the effect of size of bank on cost reduction by timing of Internet entry was not met: timing of Internet entry does not mediate the relationship between size of bank and cost reduction.

In the third regression analysis in Table 5.18, it can be seen that the addition of level of Internet usage was statistically significant over and above the effect of type of bank on cost reduction, indicating that the condition for Step 3 of the mediation model was met in this case.

The fourth mediation test involving cost reduction tested the possibility that timing of Internet entry would mediate the relationship between bank type and cost reduction. The fourth section of Table 5.18 shows the results of the analysis with timing of Internet entry as the potential mediator. The addition of timing of Internet entry did not improve prediction, and therefore the condition in Step 3 for this mediation test was not met.

Therefore, two of the four possible mediation effects with cost reduction as the dependent variable met the conditions in Step 3 of the mediation testing process: level of Internet usage may mediate the relationship between size of bank and cost reduction, and level of Internet usage may mediate the relationship between type of bank and cost reduction. The regression analyses use to test the condition in Step 4 of the mediation model for the two remaining mediation tests are presented in
Table 5.19. The first set of results in this table shows that the effect of size of bank on cost reduction was reduced from \( .431 \) (the correlation between size of bank and cost reduction which is equivalent to the beta coefficient in a bivariate regression analysis) to \( .157 \) when level of Internet usage was included as a predictor in the regression model), which is no longer statistically significant, \( p=.089 \). Therefore, level of Internet usage completely mediates the relationship between bank size and cost reduction. The second set of regression results in Table 5.20 show that the effect of type of bank on cost reduction (reported above) was reduced from \( .275 \) to \( .187 \), although this was still statistically significant (\( p=.040 \)). This indicates that there was partial mediation of the effect of bank type on cost reduction by level of Internet usage.

<table>
<thead>
<tr>
<th>Table 5.19: Tests of Step 4 in the Mediation Analyses Involving Cost Reduction as the Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>**</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

In summary, four possible mediation effects were examined with cost reduction as the dependent variable. The conditions in Step 1 and 2 of the mediation model were met in all four cases, but only two of the four tests succeeded passed the conditions for Steps 3 and 4: Level of Internet usage
completely mediated the relationship between size of bank and cost reduction, and partially mediated the relationship between type of bank and cost reduction. but timing of Internet entry did not mediate either of these relationships.

5.5.3. Mediation Tests Involving Brand Image as the Dependent Variable

Four mediation tests were performed involving brand image as the dependent variable. Step 1 of the mediation analysis was to examine the bivariate relationships between the independent variables (size of bank and type of bank) and the dependent variable (brand image). The correlation between size of bank and brand image was statistically significant (r=.409, p<.001), as was the correlation between type of bank and brand image (r=.253, p=.002), thus satisfying the condition for Step 1. The condition of Step 2 is that the independent variables are related to the mediator variables, and as reported in Section 5.5.2, all of these correlations were statistically significant.

The condition of Step 3 is that the mediator is related to the dependent variable when controlling for the independent variable. Regression results related to this condition for the four possible tests of mediation are shown in Table 5.20. In all four cases, the addition of the mediator (level of Internet usage in the first two regression models and timing of Internet entry in the last two regression models) was statistically significant, meaning that all for possible cases of mediation are still viable.

The condition of Step 4 is that the effect of the independent variable on the dependent variable is reduced with the addition of the mediator. and Table 5.22 shows the results of these tests for the four possible cases of mediation with brand
image as the dependent variable. The first mediation test involved the possible mediation of the effect of bank size on brand image by level of Internet usage. The effect of size of bank on brand image \((r=.409, p<.001)\) was reduced to \(.107\) and was no longer statistically significant \((p=.219)\) when level of Internet usage was included in the model. Therefore, level of internet usage completely mediates the relationship between bank size and cost reduction.

<table>
<thead>
<tr>
<th>Table 5.20: Tests of Step 3 in the Mediation Analyses Involving Brand Image as the Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Size of Bank, Level of Internet Usage</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Level of Internet Usage</td>
</tr>
<tr>
<td><strong>Size of Bank, Timing of Internet Entry</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Timing of Internet Usage</td>
</tr>
<tr>
<td><strong>Type of Bank, Level of Internet Usage</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Level of Internet Usage</td>
</tr>
<tr>
<td><strong>Type of Bank, Timing of Internet Entry</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Timing of Internet Entry</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level. Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.
The second mediation test involved the mediation of the effect of size of bank on brand image by timing of Internet entry. The effect of size of bank on brand image \((r = .409, p < .001)\) was reduced to \(.283\) when timing of Internet entry was included in the model (see the second regression analysis in Table 5.21), but this was still statistically significant \((p < .001)\). Thus, we can conclude that timing of Internet entry partially mediated the relationship between bank size and brand image.

The third mediation test involved the possible mediation of the effect of bank type on brand image by level of Internet usage. The effect of bank type on brand image \((r = .253, p = .002)\) was reduced to \(.188\) when level of Internet usage was included in the model. Because the effect of bank type on brand image was still statistically significant with level of Internet usage in the model \((p = .029)\), we can conclude that the effect of type of bank on brand image was partially mediated by level of Internet usage. The final mediation test involving brand image tested the possible mediation of the effect of bank type on brand image through timing of Internet entry. The effect of bank type on brand image \((r = .253, p = .002)\) increased to \(.336\) \((p < .001)\) when timing of Internet entry was included in the model, indicating that there was no mediation of the effect of type of bank on brand image through timing of Internet entry.
### Table 5.21: Tests of Step 4 in the Mediation Analyses Involving Brand Image as the Dependent Variable

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size of Bank, Level of Internet Usage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.659</td>
<td>1.141</td>
<td>33.040</td>
<td>0.000***</td>
<td>634</td>
<td>1.578</td>
<td></td>
</tr>
<tr>
<td>Size of Bank</td>
<td>0.123</td>
<td>0.100</td>
<td>0.107</td>
<td>1.235</td>
<td>0.219</td>
<td>634</td>
<td>1.578</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>0.439</td>
<td>0.081</td>
<td>0.469</td>
<td>5.401</td>
<td>0.000***</td>
<td>634</td>
<td>1.578</td>
</tr>
<tr>
<td><strong>Size of Bank, Timing of Internet Entry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>5.277</td>
<td>0.203</td>
<td>25.978</td>
<td>0.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank</td>
<td>0.325</td>
<td>0.088</td>
<td>0.283</td>
<td>3.695</td>
<td>0.000***</td>
<td>878</td>
<td>1.138</td>
</tr>
<tr>
<td>Timing of Internet Entry</td>
<td>0.385</td>
<td>0.095</td>
<td>0.311</td>
<td>4.056</td>
<td>0.000***</td>
<td>878</td>
<td>1.138</td>
</tr>
<tr>
<td><strong>Type of Bank, Level of Internet Usage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.997</td>
<td>0.142</td>
<td>35.311</td>
<td>0.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank</td>
<td>0.306</td>
<td>0.139</td>
<td>0.188</td>
<td>2.206</td>
<td>0.029**</td>
<td>724</td>
<td>1.382</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>0.395</td>
<td>0.080</td>
<td>0.422</td>
<td>4.950</td>
<td>0.000***</td>
<td>724</td>
<td>1.382</td>
</tr>
<tr>
<td><strong>Type of Bank, Timing of Internet Entry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (Constant)</td>
<td>5.313</td>
<td>0.204</td>
<td>26.024</td>
<td>0.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank</td>
<td>0.547</td>
<td>0.123</td>
<td>0.336</td>
<td>4.452</td>
<td>0.000***</td>
<td>909</td>
<td>1.100</td>
</tr>
<tr>
<td>Timing of Internet Entry</td>
<td>0.358</td>
<td>0.094</td>
<td>0.288</td>
<td>3.821</td>
<td>0.000***</td>
<td>909</td>
<td>1.100</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

### 5.5.4. Mediation Tests Involving Service Quality as the Dependent Variable

With service quality as the dependent variable, there were four possible mediation tests. The condition of Step 1 is that the independent variables (size of bank and type of bank) have statistically significant relationships with the dependent variable (service quality). The correlation between size of bank and service quality was .388 (p<.001) and the correlation between type of bank and service quality was .374 (p<.001), satisfying the condition for Step 1. The condition for Step 2 is that the independent variables (size of bank and type of bank) are related to the mediator variables (level of Internet usage and timing of Internet...
entry), as was shown in previous analyses. Therefore, the condition for Steps 1 and 2 are met for all four possible mediation tests.

Table 5.22 shows the tests related to the condition in Step 3 of the mediation model, that the mediator be significantly predictive of the dependent variable when controlling for the independent variable. In two of four cases, the condition for Step 3 of the mediation model was met: level of Internet usage was statistically significant after controlling for size of bank in the first regression analysis, and level of Internet usage was statistically significant after controlling for type of bank in the third regression analysis. However, timing of Internet entry was not statistically significant after controlling for size of bank in the second regression analysis nor was after controlling for type of bank in the fourth regression analysis. Therefore, the examination of the condition for Step 4 of the mediation model is examined only for the two models with level of Internet usage as the mediator variable.
Table 5.22: Tests of Step 3 in the Mediation Analyses Involving Service Quality as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>.388(a)</td>
<td>.150</td>
<td>.145</td>
<td>.868</td>
<td>.150</td>
<td>26.369 .000***</td>
</tr>
<tr>
<td>2</td>
<td>R</td>
<td>.430(b)</td>
<td>.185</td>
<td>.174</td>
<td>.853</td>
<td>.034</td>
<td>6.211 .014**</td>
</tr>
<tr>
<td>a.</td>
<td>Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Predictors: (Constant), Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>.388(a)</td>
<td>.150</td>
<td>.145</td>
<td>.868</td>
<td>.150</td>
<td>26.369 .000***</td>
</tr>
<tr>
<td>2</td>
<td>R</td>
<td>.405(b)</td>
<td>.164</td>
<td>.153</td>
<td>.864</td>
<td>.014</td>
<td>2.412 .123</td>
</tr>
<tr>
<td>a.</td>
<td>Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Predictors: (Constant), Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>.374(a)</td>
<td>.140</td>
<td>.134</td>
<td>.873</td>
<td>.140</td>
<td>24.188 .000***</td>
</tr>
<tr>
<td>2</td>
<td>R</td>
<td>.422(b)</td>
<td>.167</td>
<td>.167</td>
<td>.856</td>
<td>.039</td>
<td>6.959 .009***</td>
</tr>
<tr>
<td>a.</td>
<td>Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Predictors: (Constant), Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>.374(a)</td>
<td>.140</td>
<td>.134</td>
<td>.873</td>
<td>.140</td>
<td>24.188 .000***</td>
</tr>
<tr>
<td>2</td>
<td>R</td>
<td>.392(b)</td>
<td>.153</td>
<td>.142</td>
<td>.869</td>
<td>.014</td>
<td>2.415 .122</td>
</tr>
<tr>
<td>a.</td>
<td>Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Predictors: (Constant), Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

The condition of Step 4 is that the effect of the independent variable on the dependent variable is reduced with the addition of the mediator, and Table 5.23 shows the results of these tests for the two remaining possible cases of mediation with service quality as the dependent variable. The first mediation test involved the possible mediation of the effect of bank size on service quality by level of Internet usage. The effect of size of bank on service quality (r=.388, p<.001) was reduced to .247 when level of Internet usage was included in the model, but this effect was still statistically significant (p=.009). Therefore, we can conclude that level of
Internet usage partially mediated the effect of size of bank on service quality. The second mediation test examined the potential mediation of the effect of type of bank on service quality by level of Internet usage. The results from the second regression analysis presented in Table 5.23 show that the effect of type of bank on service quality was reduced from .374 (p=.001) to .225 (p=.017) when level of Internet usage was included in the model. Due to the fact that the effect of type of bank on service quality was still statistically significant, we can conclude that this effect was only partially mediated by level of Internet usage.

Table 5.23: Tests of Step 4 in the Mediation Analyses Involving Service Quality as the Dependent Variable

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.498</td>
<td>.292</td>
<td>.292</td>
<td>8.548</td>
<td>.000***</td>
<td>.634</td>
<td>1.578</td>
</tr>
<tr>
<td>Size of Bank</td>
<td>.327</td>
<td>.123</td>
<td>.247</td>
<td>2.650</td>
<td>.009***</td>
<td>.634</td>
<td>1.578</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>.250</td>
<td>.100</td>
<td>.232</td>
<td>2.492</td>
<td>.014**</td>
<td>.634</td>
<td>1.578</td>
</tr>
</tbody>
</table>

|                          |       |      |      |       |         |           |       |
| Type of Bank, Level of Internet Usage |       |      |      |       |         |           |       |
| (Constant)               | 3.040 | .287 | .225 | 10.609| .000*** | .637      | 1.569 |
| Type of Bank             | .425  | .176 | .225 | 2.416 | .017**  | .637      | 1.569 |
| Level of Internet Usage  | .265  | .100 | .246 | 2.638 | .009*** | .637      | 1.569 |

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.5.5. Mediation Tests Involving Customer Convenience as the Dependent Variable

With customer convenience as the dependent variable, four mediation tests were performed. The correlation between size of bank and customer convenience was .275 (p=.001) and the correlation between type of bank and customer convenience was .271 (p=.001). Therefore, the condition for Step 1 of the mediation model was met for all four possible cases of mediation involving
customer convenience. The condition for Step 2 (i.e. correlation between the independent and mediator variables) was previously shown. An examination of the condition of mediation in Step 3 was performed for all four possible cases of mediation involving customer convenience.

Table 5.24 contains the tests related to the condition in Step 3 of the mediation model, that the mediator be significantly predictive of the dependent variable when controlling for the independent variable. In two of four cases, the condition for Step 3 of the mediation model was met: level of Internet usage improved the prediction of customer convenience after controlling for size of bank in the first regression analysis, and level of Internet usage improved the prediction of customer convenience after controlling for type of bank in the third regression analysis. Timing of Internet entry, however, was not statistically significant in either the second or fourth regression analyses in Table 5.24. Therefore, the examination of the condition for Step 4 of the mediation model is performed only for the two models with level of Internet usage as the mediator variable.
Table 5.24: Tests of Step 3 in the Mediation Analyses Involving Customer Convenience as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Change Statistics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.275(a)</td>
<td>.076</td>
<td>.069</td>
<td>.737</td>
<td>.076</td>
</tr>
<tr>
<td>2</td>
<td>.331(b)</td>
<td>.110</td>
<td>.098</td>
<td>.726</td>
<td>.034</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.275(a)</td>
<td>.076</td>
<td>.069</td>
<td>.737</td>
<td>.076</td>
</tr>
<tr>
<td>2</td>
<td>.290(b)</td>
<td>.084</td>
<td>.072</td>
<td>.737</td>
<td>.008</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.162(a)</td>
<td>.026</td>
<td>.020</td>
<td>.757</td>
<td>.026</td>
</tr>
<tr>
<td>2</td>
<td>.314(b)</td>
<td>.098</td>
<td>.086</td>
<td>.731</td>
<td>.072</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.271(a)</td>
<td>.073</td>
<td>.067</td>
<td>.738</td>
<td>.073</td>
</tr>
<tr>
<td>2</td>
<td>.286(b)</td>
<td>.082</td>
<td>.069</td>
<td>.738</td>
<td>.008</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

The regression results related to the examination of the condition for Step 4 of the mediator analyses for customer convenience are shown in Table 5.25. In the first mediation test (involving the possible mediation of the effect of bank size on customer convenience by level of Internet usage), the effect of size of bank on customer convenience ($r = .275, p = .001$) was reduced to .134 when level of Internet usage was included in the model, and was no longer statistically significant ($p = .170$). Therefore, we can conclude that level of Internet usage completely mediates the effect of size of bank on customer convenience. The second mediation
test involved the mediation of the effect of type of bank on customer convenience by level of Internet usage. The second regression analysis in Table 5.25 shows that the effect of type of bank on service quality was reduced from .271 (p=.001) to .004 (p=.962) when level of Internet usage was included in the model. Since the effect of type of bank was no longer statistically significant, we can conclude that the effect of type of bank on customer convenience was completely mediated by level of Internet usage.

Table 5.25: Tests of Step 4 in the Mediation Analyses Involving Customer Convenience as the Dependent Variable

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SEb</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.954</td>
<td>.147</td>
<td>6.475</td>
<td>.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank</td>
<td>.145</td>
<td>.105</td>
<td>.134</td>
<td>1.378</td>
<td>.170</td>
<td>.634</td>
<td>1.578</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>.204</td>
<td>.085</td>
<td>.233</td>
<td>2.387</td>
<td>.008***</td>
<td>.634</td>
<td>1.578</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SEb</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.043</td>
<td>.151</td>
<td>6.933</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank</td>
<td>.003</td>
<td>.065</td>
<td>.004</td>
<td>.047</td>
<td>.962</td>
<td>.724</td>
<td>1.382</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>.277</td>
<td>.080</td>
<td>.316</td>
<td>3.445</td>
<td>.001**</td>
<td>.724</td>
<td>1.382</td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.5.6. Mediation Tests Involving Customer Interaction as the Dependent Variable

For customer interaction, four mediation tests were performed involving each combination of independent and mediator variables as predictors of customer interaction. The correlations between size of bank and customer interaction (r=.303, p<.001) and between type of bank and customer interaction (r=.295, p<.001) were both statistically significant, satisfying the condition of Step 1 in the mediator
analysis. The condition for Step 2 (i.e. that the independent variables were related to the mediator variables) were shown to be satisfied in previous analyses. Therefore, the condition for Step 3 was examined for all four possible mediation tests. The results of the examination of the condition for Step 3 of the mediation for models involving customer interaction as the dependent variable are shown in Table 5.26. In all four cases, the addition of the mediator variable in the second block was statistically significant. This indicates that the condition for Step 3 in all four mediation models was met.

The regression results related to the condition for Step 4 of the mediation model are shown in Table 5.27. The first mediation test involving customer interaction tested the potential mediation of the effect of bank size on customer interaction through level of Internet usage. This effect was reduced from .303 (p<.001) to .125 and was no longer statistically significant (p=.180). Therefore, the effect of bank size on customer interaction was completely mediated by level of Internet usage. The second mediation test involved the mediation of the effect of size of bank on customer interaction by timing of Internet entry. This effect was reduced from .303 (p<.001) to .217, but was still statistically significant (p=.008). This indicates that the effect of bank size on customer interaction was partially mediated by timing of Internet entry.

The third mediation test involved the mediation of the effect of type of bank on customer interaction through level of Internet usage. This effect was reduced from .295 (p<.001) to .010, which was no longer statistically significant (p=.913), indicating complete mediation of the effect of type of bank on customer interaction through level of Internet usage. The fourth and final mediation test examined the
mediation of the effect of type of bank on customer interaction through timing of Internet entry. In the bivariate analyses, this effect was .295 (p<.001), while in the bivariate regression analysis presented at the bottom of Table 5.28, this effect was reduced to .205. However, this effect was still statistically significant (p=.013), indicating partial mediation of the effect of type of bank on customer interaction through timing of Internet entry.

Table 5.26: Tests of Step 3 in the Mediation Analyses Involving Customer Interaction as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R Square</td>
<td>Sig. F</td>
<td>Change</td>
<td>F Change</td>
<td>Sig. F Change</td>
</tr>
<tr>
<td>Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.339(a)</td>
<td>.115</td>
<td>.092</td>
<td>.086</td>
<td>.032</td>
</tr>
<tr>
<td>2</td>
<td>.441(b)</td>
<td>.195</td>
<td>.145</td>
<td>.133</td>
<td>.188</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td>b. Predictors: (Constant), Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.303(a)</td>
<td>.092</td>
<td>.092</td>
<td>.086</td>
<td>.032</td>
</tr>
<tr>
<td>2</td>
<td>.381(b)</td>
<td>.145</td>
<td>.145</td>
<td>.133</td>
<td>.188</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td>b. Predictors: (Constant), Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.180(a)</td>
<td>.032</td>
<td>.026</td>
<td>.026</td>
<td>.032</td>
</tr>
<tr>
<td>2</td>
<td>.433(b)</td>
<td>.188</td>
<td>.177</td>
<td>.177</td>
<td>.188</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td>b. Predictors: (Constant), Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.295(a)</td>
<td>.087</td>
<td>.081</td>
<td>.081</td>
<td>.087</td>
</tr>
<tr>
<td>2</td>
<td>.375(b)</td>
<td>.140</td>
<td>.129</td>
<td>.129</td>
<td>.140</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td>b. Predictors: (Constant), Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.
Table 5.27: Tests of Step 4 in the Mediation Analyses Involving Customer Interaction as the Dependent Variable

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE_B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size of Bank, Level of Internet Usage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.767</td>
<td>.168</td>
<td>28.316</td>
<td>.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank</td>
<td>.162</td>
<td>.120</td>
<td>.125</td>
<td>1.347</td>
<td>.180</td>
<td>.634</td>
<td>1.578</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>.374</td>
<td>.098</td>
<td>.355</td>
<td>3.827</td>
<td>.000***</td>
<td>.634</td>
<td>1.578</td>
</tr>
</tbody>
</table>

| **Size of Bank, Timing of Internet Entry** |           |      |        |         |      |           |     |
| (Constant)               | 2.130     | .349 | 6.102  | .000*** |      |           |     |
| Size of Bank             | .279      | .104 | .217   | 2.675   | .008** | .878      | 1.138 |
| Timing of Internet Entry | .341      | .112 | .246   | 3.037   | .003*** | .878      | 1.138 |

| **Type of Bank, Level of Internet Usage** |           |      |        |         |      |           |     |
| (Constant)               | 4.613     | .172 | 26.873 | .000*** |      |           |     |
| Type of Bank             | .019      | .169 | .010   | .110    | .913 | .724      | 1.382 |
| Level of Internet Usage  | .447      | .097 | .424   | 4.585   | .003*** | .724      | 1.382 |

| **Type of Bank, Timing of Internet Entry** |           |      |        |         |      |           |     |
| (Constant)               | 2.620     | .318 | 8.238  | .000*** |      |           |     |
| Type of Bank             | .376      | .150 | .205   | 2.511   | .013** | .870      | 1.150 |
| Timing of Internet Entry | .343      | .113 | .248   | 3.032   | .003*** | .870      | 1.150 |

* = Significant at the 0.10 level; ** = Significant at the 0.05 level; *** = Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.5.7. Mediation Tests Involving Attracting New Customers as the Dependent Variable

Four possible mediational relationships were testable involving attracting new customers as the dependent variable. However, neither of the independent variables was related to attracting new customers, indicating that there was no effect to be mediated. Specifically, size of bank was not correlated with attracting new customers ($r=.095$, $p=.246$), and type of bank was not correlated with attracting new customers ($r=.093$, $p=.254$). Therefore, the condition of Step 1 of the mediation model was not met, and therefore mediation could not exist.
5.5.8. Mediation Tests Involving Retaining High Profile Customers as the Dependent Variable

Four mediation tests were performed involving the retention of existing customers involving each combination of independent variable and mediator variable. In the analyses for Step 1 of the mediation model, the correlation between size of bank and maintaining high profile customers ($r=.302, p<.001$) and the correlation between type of bank and maintaining high profile customers ($r=.343, p<.001$) were both statistically significant, indicating that the condition was met for all four mediation tests. The conditions for Step 2 of the mediation models (that the independent variables be correlated with the mediators) were met as described above.

Regression results for Step 3 of the mediation model are shown in Table 5.28. As can be seen, the increase in explained variance for all four regression analyses when the mediator was included in the second step was statistically significant, and therefore we can conclude that the conditions for Step 3 in all four mediator models were met.

Table 5.29 contains the regression results related to Step 4 in the mediator models. The first mediation test examined the mediation of the effect of size of bank on retaining high profile customers by level of Internet usage. The effect of bank size on retaining high profile customers was .302 ($p<.001$) in the bivariate analyses, and was reduced to .041 ($p=.638$) in the first regression model in Table 5.30. Therefore, we can conclude that the effect of bank size on retaining high profile customers was completely mediated by level of Internet usage.
The second mediation test examined the mediation of the effect of bank size on retaining high profile customers through timing of Internet entry. In the bivariate analyses, this effect was .302 ($p<.001$), and was reduced to .186 when the mediator was included in the model. However, this effect was still statistically significant ($p=.020$), indicating that the effect of bank size on retaining high profile customers was only partially mediated by timing of Internet entry.

The third mediation test examined the possible mediation of the effect of bank type on retaining customers through level of Internet usage. The effect of bank type on retaining customers in the bivariate analyses was .343 ($p<.001$), and was reduced to .022 ($p=.080$) when level of Internet usage was included in the model. Thus, the effect of bank type on retaining customers was completely mediated by level of Internet usage.

The fourth and final mediation test involving retaining high profile customers examined the mediation of the effect of bank type on retaining high profile customers through timing of Internet entry. In the bivariate analyse, the correlation between bank type and retaining high profile customers was .343 ($p<.001$), which was reduced to .229 when timing of Internet entry was included in the model. Due to the fact that this effect was still statistically significant ($p=.004$), we can conclude that the effect of bank type on retaining high profile customers was partially mediated by timing of Internet entry.
Table 5.28: Tests of Step 3 in the Mediation Analyses Involving Retaining High Profile Customers as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td>Size of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.302(a)</td>
<td>.091</td>
<td>.085</td>
<td>.736</td>
<td>.091</td>
</tr>
<tr>
<td>2</td>
<td>.543(b)</td>
<td>.295</td>
<td>.286</td>
<td>.651</td>
<td>.204</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Level of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.302(a)</td>
<td>.091</td>
<td>.085</td>
<td>.736</td>
<td>.091</td>
</tr>
<tr>
<td>2</td>
<td>.434(b)</td>
<td>.188</td>
<td>.178</td>
<td>.698</td>
<td>.097</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Size of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Size of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.224(a)</td>
<td>.050</td>
<td>.044</td>
<td>.753</td>
<td>.050</td>
</tr>
<tr>
<td>2</td>
<td>.547(b)</td>
<td>.299</td>
<td>.290</td>
<td>.649</td>
<td>.249</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Level of Internet Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.343(a)</td>
<td>.118</td>
<td>.112</td>
<td>.726</td>
<td>.118</td>
</tr>
<tr>
<td>2</td>
<td>.451(b)</td>
<td>.204</td>
<td>.193</td>
<td>.692</td>
<td>.086</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Type of Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), Type of Bank, Timing of Internet Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.
Table 5.29: Tests of Step 4 in the Mediation Analyses Involving Retaining High Profile Customers as the Dependent Variable

<table>
<thead>
<tr>
<th>Size of Bank, Level of Internet Usage</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4.582</td>
<td>.132</td>
<td></td>
<td>34.723</td>
<td>.000***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Bank</td>
<td>.044</td>
<td>.094</td>
<td>.041</td>
<td>.472</td>
<td>.638</td>
<td>.634</td>
<td>1.578</td>
</tr>
<tr>
<td>Level of Internet Usage</td>
<td>.501</td>
<td>.077</td>
<td>.567</td>
<td>6.541</td>
<td>.000***</td>
<td>.634</td>
<td>1.578</td>
</tr>
</tbody>
</table>

| Size of Bank, Timing of Internet Entry | 2.120  | .287| 7.389 | .000***|        |           |      |
| (Constant)                           |        |     |       |        |        |           |      |
| Level of Internet Usage              | .389   | .092| .332  | 4.208  | .000***| .878      | 1.138|

| Type of Bank, Level of Internet Usage | 4.546  | .134| 34.022 | .000***|        |           |      |
| (Constant)                           |        |     |       |        |        |           |      |
| Type of Bank                         | .034   | .132| .022  | .254   | .800   | .724      | 1.382|
| Level of Internet Usage              | .491   | .076| .555  | 6.454  | .000***| .724      | 1.382|

| Type of Bank, Timing of Internet Entry | 2.494  | .258| 9.659  | .000***|        |           |      |
| (Constant)                           |        |     |       |        |        |           |      |
| Type of Bank                         | .355   | .122| .229  | 2.914  | .004***| .870      | 1.150|
| Level of Internet Usage              | .368   | .092| .315  | 4.000  | .000***| .870      | 1.150|

**=Significant at the 0.10 level; ***=Significant at the 0.05 level; ****=Significant at the 0.01 level.

Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.5.9. Mediation Tests Involving Cross Selling as the Dependent Variable

The final four mediation tests involved cross-selling as the dependent variable. The conditions of Step 1 of the mediation model were met in that cross selling was correlated with both size of bank ($r=.253, p=.002$) and type of bank ($r=.201, p=.013$), and the conditions in Step 2 were met as described in previous analyses. Table 5.30 shows the regression results related to the condition in Step 3 of the mediation model for the four possible mediation tests with cross selling as the dependent variable. In all four cases, the mediator variable (level of Internet usage in the first two regression analyses, and timing of Internet entry in the last
two regression analyses) was not statistically significant. Therefore, the condition of mediation for Step 3 of the mediation model was not met. There was no mediation related to the relationships between size or type of bank and cross selling.

Table 5.30: Tests of Step 3 in the Mediation Analyses Involving Cross Selling Customers as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig. F Change</td>
</tr>
</tbody>
</table>

Size of Bank, Level of Internet Usage

1 0.253 0.064 0.058 0.842 0.064 10.160 0.002***
2 0.255 0.065 0.053 0.844 0.001 2.17 0.642
a. Predictors: (Constant), Size of Bank
b. Predictors: (Constant), Size of Bank, Level of Internet Usage

Size of Bank, Timing of Internet Entry

1 0.253 0.064 0.051 0.845 0.000 0.010 0.921
2 0.253 0.064 0.051 0.845 0.000 0.010 0.921
a. Predictors: (Constant), Size of Bank
b. Predictors: (Constant), Size of Bank, Timing of Internet Usage

Type of Bank, Level of Internet Usage

1 0.201 0.040 0.034 0.853 0.040 6.283 0.013**
2 0.215 0.046 0.033 0.853 0.006 0.914 0.341
a. Predictors: (Constant), Type of Bank
b. Predictors: (Constant), Type of Bank, Level of Internet Usage

Type of Bank, Timing of Internet Entry

1 0.201 0.040 0.034 0.853 0.040 6.283 0.013**
2 0.201 0.041 0.028 0.855 0.000 0.011 0.915
a. Predictors: (Constant), Type
b. Predictors: (Constant), Type, Timing

*=Significant at the 0.10 level; **=Significant at the 0.05 level; ***=Significant at the 0.01 level.
Note: Significance levels of .05 or greater would be considered significant, and significance levels .05 and .10 would be considered marginal.

5.5.10. Summary of Mediation Testing

In total, 32 mediation tests were performed, one for each combination of independent, mediator, and dependent variable. The four conditions for mediation were met in 18 of the 32 cases. A summary of these tests is presented in Table 5.31.
To review, the four conditions of mediation are represented in four steps: Step 1 is that the independent variable must predict the dependent variable; Step 2 is that the independent variable must predict the mediator variable; Step 3 is that the mediator must predict the dependent variable; and Step 4 is that the effect of the independent variable on the dependent variable must be reduced with the introduction of the effect of the mediator variable. For the first three conditions, the condition is either satisfied or not, and therefore the table entries consist of either ‘Yes’ if the condition was met or ‘No’ if the condition was not met. For the final condition, there are three possible results: (a) the effect of the independent variable on the dependent variable can be completely mediated (such that the relationship between the independent variable and the dependent variable is not statistically significant), (b) the effect of the independent variable on the dependent variable can be partially mediated (such that the relationship between the independent variable and the dependent variable is reduced, but not eliminated, and is still statistically significant), or (c) the effect of the independent variable on the dependent variable was not reduced. As in the analyses described above, mediation testing for any particular combination of variables is ceased when a condition is not met.
### Table 5.31: Mediation Test Results

<table>
<thead>
<tr>
<th>Step</th>
<th>IV Predicts DV</th>
<th>IV Predicts Mediator</th>
<th>Mediator Predicts DV</th>
<th>IV Effect Reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
<td>Yes</td>
<td>No-testing ceased</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>No-testing ceased</td>
<td>Yes</td>
<td>No-testing ceased</td>
<td></td>
</tr>
</tbody>
</table>

| Bank Size > Level of Usage > Cost Reduction |
| Bank Size > Timing of Entry > Cost Reduction |
| Bank Type > Level of Usage > Cost Reduction |
| Bank Type > Timing of Entry > Cost Reduction |

| Bank Size > Level of Usage > Brand Differentiation |
| Bank Size > Timing of Entry > Brand Differentiation |
| Bank Type > Level of Usage > Brand Differentiation |
| Bank Type > Timing of Entry > Brand Differentiation |

| Bank Size > Level of Usage > Service Quality |
| Bank Size > Timing of Entry > Service Quality |
| Bank Type > Level of Usage > Service Quality |
| Bank Type > Timing of Entry > Service Quality |

<p>| Bank Size &gt; Level of Usage &gt; Customer Convenience |
| Bank Size &gt; Timing of Entry &gt; Customer Convenience |
| Bank Type &gt; Level of Usage &gt; Customer Convenience |
| Bank Type &gt; Timing of Entry &gt; Customer Convenience |</p>
<table>
<thead>
<tr>
<th>Step</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV &gt; Mediator &gt; DV</td>
<td>IV Predicts DV</td>
<td>IV Predicts Mediator</td>
<td>Mediator Predicts DV</td>
<td>IV Effect Reduced</td>
</tr>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Customer Interaction</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Bank Size &gt; Timing of Entry &gt; Customer Interaction</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Customer Interaction</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Bank Type &gt; Timing of Entry &gt; Customer Interaction</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>2</td>
</tr>
</tbody>
</table>

| Bank Size > Level of Usage > New Customer | No-testing ceased | No-testing ceased | No-testing ceased | No-testing ceased |
| Bank Size > Timing of Entry > New Customer | No-testing ceased | No-testing ceased | No-testing ceased | No-testing ceased |
| Bank Type > Level of Usage > New Customer | No-testing ceased | No-testing ceased | No-testing ceased | No-testing ceased |
| Bank Type > Timing of Entry > New Customer | No-testing ceased | No-testing ceased | No-testing ceased | No-testing ceased |

| Bank Size > Level of Usage > Maintain Customer | Yes | Yes | Yes | 1 |
| Bank Size > Timing of Entry > Maintain Customer | Yes | Yes | Yes | 2 |
| Bank Type > Level of Usage > Maintain Customer | Yes | Yes | Yes | 1 |
| Bank Type > Timing of Entry > Maintain Customer | Yes | Yes | Yes | 2 |

| Bank Size > Level of Usage > Cross-selling | Yes | Yes | No-testing ceased | No-testing ceased |
| Bank Size > Timing of Entry > Cross-selling | Yes | Yes | No-testing ceased | No-testing ceased |
| Bank Type > Level of Usage > Cross-selling | Yes | Yes | No-testing ceased | No-testing ceased |
| Bank Type > Timing of Entry > Cross-selling | Yes | Yes | No-testing ceased | No-testing ceased |

*Note. a. For Step 4, 1 = the IV effect was completely mediated (i.e. went from statistically significant in the bivariate regression model to statistically non-significant when the mediator was included), 2 = the IV effect was partially mediated (i.e. was statistically significant with and without the mediator variable in the equation, but was smaller with the mediator in the equation), and 3 = the effect of the IV was not reduced at all by the mediator.*
5.6 **SOBOL TEST RESULTS**

In examining possible mediation, the Sobel (1982) test offers a significance test in which a z score is calculated such that we can determine whether the indirect effect of the independent variables on the dependent variables by means of the mediator is significantly different from zero. Given the output of the regression equations (1) and (3) above we have all we need to calculate the statistic. Calculate a) which equals the unstandardised coefficient of the independent when predicting the dependent by itself, and its standard error $sa$. From the equation (3) take the unstandardised coefficient $b$ for the mediator and its standard error $sb$. To obtain the statistic, input those calculations in the following variant of the Sobel's original formula:

To calculate the significance of the mediated effect, divide the mediated effect by its standard error (MacKinnon and Dwyer, 1993). The regression coefficients ($a$, $b$, $c$, and $c'$ from above) and the standard errors for each of those regression coefficients ($sec$, $sea$, $seb$, and $sec'$) come from the output from running the regressions above.

Divide the mediated effect ($a*b$) by standard error. The result is a z-score.

$$z_{ob} = \frac{a*b}{se_{ob}}$$

The formula for this standard error ($se_{ab}$) of the mediated effect ($a*b$) is below (Sobel, 1982).

$$se_{ab} = \sqrt{(a^2 * seb^2) + (b^2 * sea^2)}$$

303
Where,

\[ a = \text{raw (unstandardised) regression coefficient for the association between independent variables and mediator.} \]

\[ sa = \text{standard error of } a. \]

\[ b = \text{raw coefficient for the association between the mediator and the dependent variables (when the independent variables is also a predictor of the dependent variables).} \]

\[ sb = \text{standard error of } b. \]

In addition to determining if the data were consistent with the mediational hypotheses, the statistical significance of the indirect effect of the independent variable on the dependent variable through the mediator variable was tested, but only for the 18 cases in which mediation was shown. Table 5.32 presents the results of the Sobel z tests used to determine if the indirect effects were statistically significant in the 18 cases of either partial or complete mediation. All 18 of indirect effects were statistically significant.
Table 5.32: Sobel Test Results

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>Sobel z</th>
<th>p</th>
<th>Standardised Indirect Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Cost Reduction*</td>
<td>3.575</td>
<td>&lt;.0005</td>
<td>.214</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Cost Reduction*</td>
<td>3.457</td>
<td>&lt;.0005</td>
<td>.201</td>
</tr>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Brand Differentiation*</td>
<td>4.668</td>
<td>&lt;.0005</td>
<td>.284</td>
</tr>
<tr>
<td>Bank Size &gt; Timing of Entry &gt; Brand Differentiation*</td>
<td>3.025</td>
<td>.001</td>
<td>.108</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Brand Differentiation*</td>
<td>4.346</td>
<td>&lt;.0005</td>
<td>-.252</td>
</tr>
<tr>
<td>Bank Type &gt; Timing of Entry &gt; Brand Differentiation*</td>
<td>2.965</td>
<td>.002</td>
<td>.104</td>
</tr>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Service Quality*</td>
<td>2.836</td>
<td>.002</td>
<td>.164</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Service Quality*</td>
<td>2.526</td>
<td>.006</td>
<td>.139</td>
</tr>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Customer Convenience.*</td>
<td>2.311</td>
<td>.010</td>
<td>.141</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Customer Convenience.*</td>
<td>2.700</td>
<td>.003</td>
<td>.164</td>
</tr>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Customer Interaction*</td>
<td>3.538</td>
<td>&lt;.0005</td>
<td>.215</td>
</tr>
<tr>
<td>Bank Size &gt; Timing of Entry &gt; Customer Interaction</td>
<td>2.529</td>
<td>.006</td>
<td>.086</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>Sobel z</td>
<td>p</td>
<td>Standardised Indirect Effect</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>---------</td>
<td>--------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Customer Interaction*</td>
<td>4.093</td>
<td>&lt;.0005</td>
<td>0.253</td>
</tr>
<tr>
<td>Bank Type &gt; Timing of Entry &gt; Customer Interaction</td>
<td>2.550</td>
<td>.005</td>
<td>0.089</td>
</tr>
<tr>
<td>Bank Size &gt; Level of Usage &gt; Maintain Customer*</td>
<td>5.347</td>
<td>&lt;.0005</td>
<td>0.343</td>
</tr>
<tr>
<td>Bank Size &gt; Timing of Entry &gt; Maintain Customer</td>
<td>3.094</td>
<td>.001</td>
<td>0.116</td>
</tr>
<tr>
<td>Bank Type &gt; Level of Usage &gt; Maintain Customer *</td>
<td>5.260</td>
<td>&lt;.0005</td>
<td>0.331</td>
</tr>
<tr>
<td>Bank Type &gt; Timing of Entry &gt; Maintain Customer</td>
<td>3.047</td>
<td>.001</td>
<td>0.113</td>
</tr>
</tbody>
</table>

Note. *The indirect effect is statistically significant, p<.05.
PAGE
NUMBERING
AS ORIGINAL
Figure 5.3: Hypotheses testing result - Mediation Model
5.7 CONCLUSION

This chapter presented the findings and results from the survey. It started with a description of key attributes of Internet strategy. The researcher found that the majority of respondents believed that they were offering Internet service at a sophisticated transactional and communication level, which confirmed the results from the pilot interviews. The second key attribute was the factors that provide retail banks and building societies with competitive advantage. The managers who believed that the Internet has provided retail banks and building societies with competitive advantage exhibited different views when it comes to 'sustainability' of the competitive advantage. The barriers to achieving competitive advantage using the Internet were then discussed in detail. There was no consensus on whether timing of entry has affected the ability of Internet banks to achieve competitive advantage using the Internet. The majority of managers agreed that retail banks whose Internet usages were at sophisticated transaction level have gained more competitive advantage.

Factor analysis was then used to explore competitive strategies to achieve perceived competitive advantage with the Internet. The three factors, namely differentiation, cost leadership and product uniqueness, explained a total of 63.5 per cent of the variance.

Further, the hypotheses of the theoretical framework were tested using a set of bivariate regression and then mediator variables were introduced and mediation results were presented.

Table 5.33 summarises the analysis of the hypotheses.
Table 5.33: Summary of Research Hypotheses and Results of the Analysis

<table>
<thead>
<tr>
<th>Hypothesis Number</th>
<th>Specific Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a:</td>
<td>Bigger banks tend to have a higher level of Internet usage.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>1b:</td>
<td>Retail banks tend to have a higher level of Internet usage than building societies.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>2a:</td>
<td>Bigger banks tend to enter Internet arena earlier.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>2b:</td>
<td>Retail banks tend to enter Internet arena earlier than building societies.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>3a:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
<td>Rejected</td>
</tr>
<tr>
<td>3b:</td>
<td>Managers from retail banks tend to believe that the Internet has provided more competitive advantage by greater cost reduction.</td>
<td>Rejected</td>
</tr>
<tr>
<td>3c:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
<td>Rejected</td>
</tr>
<tr>
<td>3d:</td>
<td>Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by greater cost reduction.</td>
<td>Rejected</td>
</tr>
<tr>
<td>4a:</td>
<td>Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>4b:</td>
<td>Managers from retail banks tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>4c:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving brand image.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>4d:</td>
<td>Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage of brand image improvement.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>5a:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving service quality.</td>
<td>Rejected</td>
</tr>
<tr>
<td>5b:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving service quality.</td>
<td>Marginally not rejected</td>
</tr>
<tr>
<td>5c:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by offering customer more convenience.</td>
<td>Rejected</td>
</tr>
<tr>
<td>5d:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by offering customer more convenience.</td>
<td>Marginally not rejected</td>
</tr>
<tr>
<td>5e:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by improving customer interaction.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>5f:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving customer interaction.</td>
<td>Not rejected</td>
</tr>
<tr>
<td>6a:</td>
<td>Managers from big banks tend to consider that the Internet has provided more competitive advantage by attracting more new customers.</td>
<td>Rejected</td>
</tr>
<tr>
<td>6b:</td>
<td>Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by attracting more new customers.</td>
<td>Marginally not rejected</td>
</tr>
<tr>
<td>6c:</td>
<td>Managers from banks with earlier Internet entry tend to consider that</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
the Internet has provided more competitive advantage by attracting more new customers.

6d: Managers from big banks tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

6e: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

7a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by more products cross selling.

7b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by more products cross selling.

<table>
<thead>
<tr>
<th></th>
<th>6d:</th>
<th>6e:</th>
<th>7a:</th>
<th>7b:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not rejected</td>
<td>Not rejected</td>
<td>Not rejected</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

312
Chapter 6: DISCUSSION

6.1 INTRODUCTION

This chapter summarises the findings from the open questions, the hypotheses, the factor analysis and other results from the survey. The first section contains the discussion of the open questionnaire. It opens with a consideration of the perceptions of managers about what is competitive advantage and how it arises. The answers to the open question in the survey about the nature of competitive advantage in terms of UK retail banking sector can be grouped into six categories, which are then reflected on in turn. Following that there is a comparison of the manager's response to the open question with the academic view of the same issues.

In the second section, the factors, which arise from the factor analysis, are outlined. They are very important in relation to producing competitive advantage in the Internet arena in UK retail banking sector. They are differentiation, cost leadership and product uniqueness. This section discusses the factor analysis in these terms.

In the third section, the results of the survey in relation to the hypotheses are discussed. A similar pattern to that established for the interviews is used to discuss the findings. Comparisons with the results of the analysis are made with both the interviews and literature. In order to contextualise some of the concepts raised by the hypotheses please see section 2.4 for the background to the concepts.

In the fourth section, the results of the survey in relation to the hypotheses were discussed. A similar pattern to that established for the interviews was used to discuss the findings. Comparisons with the results of the interviews were made.
This section considers the sustainability of and barriers to competitive advantage with a particular emphasis on the competitive actions of rival retail banks. Sustainability was a key part of the interviews, had a survey section devoted to it and is discussed here as a separate survey result.

Finally the chapter ends with summary and concluding remarks and in particular a contention that companies should not simply concentrate on cost leadership or differentiation and exclude other added-value strategies.

6.2 DISCUSSION OF THE OPEN QUESTIONNAIRE

This section contains the discussion of the open questionnaire. It opens with a consideration of the perceptions of managers about what is competitive advantage and how it arises. The answers to the open question in the survey about the nature of competitive advantage in terms of UK retail banking sector can be grouped into six categories, which are then each reflected on in some detail. Following that there is a comparison of the managers' response to the open question with the academic view of the same issues.

6.2.1 Managerial Perception of Competitive Advantage

The answers to the open question in the survey about the nature of competitive advantage in terms of UK retail banking sector can be grouped into six categories: - cost and differentiation focus, customer focus, competition focus, unique characteristics/background of a firm, a general definition of competition and
a combination of all the aforementioned concepts. The first three groups are grounded in the theories mentioned in Chapter two. The first five are the framework developed in chapters four and five above and the final one is a combination of them all.

6.2.2 Cost and Differentiation Focus

As discussed previously in Chapter two, Michael Porter (1985) identified two basic types of competitive advantage; namely, cost advantage and differentiation advantage. He claimed a competitive advantage exists when the firm is able to deliver the same benefits as competitors but at a lower cost, i.e. cost advantage, or deliver benefits that exceed those of competing products, i.e. differentiation advantage. Cost and differentiation advantages are also known as ‘positional advantages’ as they describe the firm’s position in the industry as either a leader in cost or in differentiation.

Echoing the interviews’ results, some managers in the survey open question, emphasised lower cost as a source of gaining competitive advantage, e.g. “lower cost with a stronger brand”, “differentiation in our value proposition”, “being able to attract new business or maintain existing systems with a greater level of efficiency and therefore lower price than the competition whilst at the same time making a profit”, “simple products with simple access and competitive rates”, “good product pricing”. However as analysed in the previous interview section, it appears that the amount of cost reduction required to make a difference to competitive advantage is very large.
Other managers emphasised low-cost products, but in the context of other issues like competition, “consistently attracting normal share of business at lower prices than the competition or more business at the same pricing”, or with regard to the danger to financial stability of trimming profitability to the bone “a strategy which enables attractive products to be offered to customers without undermining financial strength”.

Whereas, some managers believed that retail banks could achieve competitive advantage by employing product differentiation. Such competitive advantage could be achieved by providing “market leading products” and “products that differentiate”. Again some managers built on this basic theme with references to other ways of being different, “gaining advantage by being different, this can include differentiation by service, price or other means”.

Other opinions were that service differentiation was key to achieving competitive advantage. Examples given were: “the provision of outstanding service”, “competitive offering, quality service”, “providing a product at the right place but through an easily accessible outlet”.

A few managers considered brand differentiation as a major source of gaining competitive advantage, e.g. “sustainable brand differentiation”.

Many managers gave a more comprehensive view, with a possible combination of differentiation of product; service and brand (see also the related combination of factors section below). This set of responses echoed the literature discussed in Chapter one and two and the findings of the interviews above. The literature developed the idea of firm level competition as the basis of competitive
position (Mintzberg, 1978; Porter, 1980; Chen and Macmillan, 1992). into the concept of competitive dynamics. This focuses on the relationship between competitive advantage and competitive action by firms (Bettis and Weeks, 1987; Chen and Macmillan, 1992; Smith et al., 1992) and the competitive dynamics view that the competitive actions by one firm set off retaliatory actions by competing firms (Baum and Korn, 1996). This further led to the idea that sometimes a firm's key competitive advantage is the manner and speed with which it responds to the moves or countermoves of its competitors rather than the moves themselves. (Smith et al., 1992). Many respondents encapsulated this with comments like, "superior products and superior service", "positioning your firm through products or services to gain an advantage over competitors", "capability of providing a good product/service at lower price" was emphasised. Some managers cited their core strengths in staff, brand etc. with "our competitive advantage is realised and sustained through our employees, brand, values and products", or "unique products combined with excellent customer service". Other described this differentiation in relation to the competition (see also below), "providing a product or a service which highlights us as market leaders", "physical or intellectual assets which differentiate product or service offerings from the competition", and "being able to offer our members something that they cannot get anywhere else in the market place".

Many managers referred to their differentiation in terms of a proposition. This was mainly in relation to the unique qualities of the firm (also see below), "uniqueness", differentiation from mutual positioning", and "a mutual business model that harnesses the power of altruism by: reducing the number of non-
customer oriented demands for profit thereby maintaining a price advantage and promoting customer centric policies”. This was very similar to the discussion in 4.3.1 on uniqueness and again quoting from Porter and Grant; “Sustainable differentiation advantages include a unique activity or product valued by customers and that customers perceive to be better than or different from the product of the competition that competitors could not easily imitate” (Porter, 1985; Grant, 1991). This also strongly echoed the interview discussion and especially the responses from the Leeds and Holbeck.

6.2.3 Customer Focus

Recent resource-based views on strategy discussed at length in Chapter two provide the framework in which important factors providing competitive advantage are listed. According to resource-based views on strategy it is possible to itemise the characteristics of organisations that perform better than their competitors. Resources have both tangible and intangible components that deliver superior value to one or more customer segments (Hunt and Morgan, 1995). Resource is not strictly internal and the most relevant frameworks focus on organisational skills and resources underlying the competitive advantages of service business (Bharadwaj et al., 1993). Resource-based views also suggest that market-driven organisations are superior in their market sensing and customer-linking capabilities (Day, 1994). Market-driven organisations will emphasise customer focus. In the light of this there was much support for the importance of customer focus.

Some answers were very direct and simple, e.g. “being the first choice for customers”, “perceived value leader in eyes of our customers”, “keeping a step
ahead of consumer expectations”, “an advantage that makes a firm better able to respond to customer requirements”, and “have more customer appeal than competitors”.

Other managers added a value proposition to their customer focus with, “unique offerings to customers”, “unique value for customers”, “ability to offer simplicity value and convenience to customers”, and “having distinct capabilities recognised by customers”.

Some managers wanted to address customer demands better than their competitors, “to satisfy customer demands more efficiently than competitors”, “highest customer satisfaction in the competition”, “the ability/functionality to outperform competitors in the eyes of the customer”, “being able to clearly identify a unique factor(s) that customers see as both important and different to the competition, that also results in winning new customers”, “being the first to offer products and services to our cliental”, and “delivering a service which no other company in the same sector provides which is valued by the customer sufficiently to generate flows of new profitable business from them”. This section was strongly reminiscent of the interviewee from First Direct in both content and emphasis.

Yet other managers were concerned with their staff or technology providing the edge with their customer base: “a quality service at a fair price provided by friendly staff who understands our customers better than our competitors”, and “leading edge technology meeting and exceeding customer expectations”.

319
Competition focus

According to the resource-based view (as discussed in chapter two, see for example, Peteraf, 1993), in order to develop a competitive advantage a firm must have resources and capabilities that are superior to those of its competitors. This way of thinking is characterised by the concept of matching a firm's competences and resources that are relatively superior compared to those of competitors, to environmental opportunities in order to create a competitive advantage. Without this superiority, the competitors could replicate what the firm was doing and any advantage would disappear virtually immediately. Prahalad and Hamel (1990) suggest that firms combine their resources and skills into core competencies, which are defined as what a firm does distinctively well in comparison with its competitors.

As introduced in section 2.2.4, game theory is a set of analytical tools designed to help us understand the phenomena we observe when decision-makers interact (e.g. Schelling, 1960), and is also relevant in this context. Game theory has its roots in applied mathematics but has become a major force in business and economics. A game is any rule-governed situation with a well-defined outcome, characterised by strategic inter-dependence. Key concepts relevant to the game and therefore, competitive strategy, are the payoff matrix, extensive form games, and the core of a game (Brandenburger and Nalebuff, 1995). This is very applicable to the competition in Internet banking.

The underlying assumptions of the theory are that decision makers pursue well-defined objectives and take into account their knowledge of other decision makers' behaviour (Osborne and Rubenstein, 1994). The key benefit of game
theory is that it improves strategic decision-making by making business aware of which strategy matters in what situation, to say nothing of the strategic nuances and actions on the part of one's competitors or opponents. Game theory seeks to address how one firm might choose strategies "rationally" when outcomes depend on the strategies chosen by others and when information is incomplete.

Game theory contextualises the responses of the managers to the competitive situation they are experiencing.

According to many answers of the survey, a lot of the focus is on simply trying to outperform the competition: "gaining the opportunity to succeed, e.g. by the development of products or services that are wanted by customers before other organisations", "gives greater capability of success over competitors", "being able to do something that your competitors find difficult or impossible", "offering better products/services than your competitors", "providing a service that others do not" and "accurate market positioning".

Other managers are searching for the "magic bullet" that will defeat the competition: "identification of a factor or number of factors that persuades somebody to do business with me rather than you", "doing something not done or done as good by competitors", "one or more significant advantage over competitors e.g. distribution, cost base, customer base, etc.", "establishing a proposition which competitors find hard to replicate", "advantage that competitor will have difficulty to achieve", "being able to offer something your competitors can't", "possession of a unique attribute that competitors do not have", "something which gives us a greater chance of success against our competitors", "the use of something
(Technology, Culture, etc.) to allow your company to perform better than its competitors”, “gaining an edge over competitors that will have direct business benefits and is not easy to replicate”, “a process or product which enables you to achieve greater sales or profitability viz. a viz. the competitors”, “an advantage that makes a firm more able to succeed in competing with others”, and “a market initiative that results in the organisation outperforming related to its current market share”.

Some felt being a strong or early market player were the major issues here: “customers can adopt the strong player in the market because it is easy to do business with”, “having something to offer early in the market place” and “being in the right place at the right time with the right product”.

This fits exactly with the literature presented in section 2.2. Some researchers believe that firms will always challenge and compete with their rivals in an effort to gain in terms of relative performance (Lumpin and Dess, 1995; Miller, 1993). This has lead to efforts to increase market share with price and marketing initiatives (Vilcassim et al., 1999), innovations (Banbury and Mitchell, 1995), competitive challenges, (Makadok, 1998; Ferrier et al., 1999), differentiation or combinations of these (Ferrier et al., 1999).

6.2.4 Unique characteristics of a firm

As discussed above in Chapter two, competitive advantage from a firm perspective can be understood in terms of the “distinctive competencies” that give a firm an edge over its rivals (Barney, 1986; Day and Wensley, 1988; Fahey, 1989;
Ghemawat, 1986; Reed and DeFillippi, 1990). Resource-based theory emphasises the strategic significance of the firm’s own resources, which are defined as any entity, tangible or intangible, that the firm has at its disposal to enable it to produce efficiently and/or effectively a market offering that has value for some market segment or segments (Hunt and Morgan, 1995:6). Grant (1991) proposes an inward-looking approach to define competitive advantage. He suggests that competitive advantage stems from companies’ internal resources and capabilities, and defines resources as inputs to the production process, where only few are ever productive. Grant defines capabilities as the capacity of a team of resources to perform some task or activity and argues that while resources are a source of a firm’s capabilities, capabilities are the main source of its competitive advantage.

The answers from the respondents reflect the above, but with nuances generated by the firm’s background. Some of the managers gave very straightforward responses, along the lines of the previous paragraph: “being unique for a short period of time”, “having the tools and technologies to adapt to changing markets profitably”, “uniqueness”, “a unique selling proposition”, “attribution of an offering advantage specific to the organisation in the offer/sale/provision of a product/service” or “a distinct and unique offering which provides a service or product at a price which generates profits and is seen to provide value for money for the consumer”, “uniqueness-difficult for competitors to copy” and “combination of traditional offering and largest Internet bank”.

One theme of unique firm characteristics is the mutual status of the building society movement: “differentiation-mutual positioning” and “a mutual business model that harnesses the power of altruism by: reducing the number of non-
customer oriented demands for profit, thereby maintaining a price advantage and promoting customer centric policies”. Again this is strongly supportive of the Leeds and Holbeck stance in the discussion section on unique firm characteristics.

Another area of interest relates to early entry. Lieberman and Montgomery (1988) listed three main reasons that firms gain first mover advantages: 1) customers are loyal to the brand that they initially use, and therefore, are reluctant to switch to a new brand; 2) firms enjoy early access to limited specialised assets; and 3) firms have access to patents and technology that are not accessible to other players (Gopalakrishnan et al., 2003). In relation to Internet banking, as the Internet is becoming a more and more important marketing channel, it is likely that those companies which entered the e-market at a relatively early stage are more likely to capture the customer interface, build customer relationships, a brand name and awareness among Internet users (Hagel et al., 1997; Mols, 2000; Porter, 2001). While the Internet first mover banks may have achieved a degree of competitive advantage, as more retail banks and building societies begin offering similar services, the advantage is not sustainable (Moskow, 2001). Some research indicates that there may be some benefits for later entry, for example the ability to learn from the mistakes of the early movers and thus lower entry costs (Porter, 1985). However the managers were unanimous that there was considerable first mover advantage: “first mover allowing you to make commercial gains”, “first full service Internet bank in the UK”, from one of the Egg managers and less positive, “early to the market with innovative products.”
6.2.5 Factors in combination

In keeping with the findings of the literature review in section two and the interview discussion, some responders agreed with the literature review's researchers that combinations of factors or ideas were required to achieve advantage (Ferrier et al., 1999). This could be summed up by the comment from one respondent; “could include a wide range of possibilities from technology, personnel, information, management style, funding, products, brand etc”.

Slightly less comprehensive and more typical responses were as follows: “ability to offer a service/services at a better price or margin than others in the same market”, “having a brand, service and products and staff that are overall superior to the opposition”, “pricing and service to suit our target customers”, “ability to offer product and services more efficiently than others -i.e. price quality”, “in financial services: simplicity and consistent value, customer focus, low operational costs and maximisation of core competencies”, and “offering a better service at a more competitive price than competitors”.

There were a number of general comments about unspecified ideas or groups of ideas for gaining competitive advantage like: “a capability that at a given point of time one organisation enjoys ahead of its competitors and gives its advantage in the eyes of its customers and potential customers”, “anything can give competitive advantage as being different from the rest of the market”, “a point of differentiation over your competition”, “unique aspects of your service that are key in a customer’s decision to use you rather than a competitor”, “doing something before the competition, which helps colleagues to deliver a better customer service and reduce costs”, and “something which provides a business
with the ability to either generate more income or achieve greater cost savings than competitors, hence enabling the business to provide a product/service or range of product/services more profitably.”

Some of these might be new ideas but still unspecified like this comment; “launching a product/service which is unavailable before others have followed to gain a niche position”.

This also rejects Porter (1985)’s view that cost leadership and differentiation are fundamentally contradictory strategies, requiring different sets of resources; therefore any firm attempting to combine them would be “stuck in the middle” and fail to enjoy superior performance. However, this fits the resource based view that management creates rent to achieve competitive advantage by combining, developing and utilising resources to create more valuable outcomes than their competitors (Conner, 1991; Teece, Pisano and Shuen, 1997; Barney, 2001).

6.2.7 General definition

Finally there were some observations, which were too general to characterise into the above definitions. Some were themselves almost definitions like: “a sustainable characteristic which provides an edge”, “being a leader in the market”, “a business strength which offers an advantage over competitors”, “retaining and attracting business profitability to both the user and provider”, “being ahead of the game”, and “leading edge”.

326
Others were talking about some undefined special factor: "providing the 'WOW' factor", "is the unique 'X' factor in a business which distinguishes it from others", and "a factor which provides a firm with an increased opportunity to succeed-in comparison with others".

Some talked about this factor in relation to the competition: "ability to generate additional income and access new market from other suppliers", "making the most of your time as market leader", and "an advantage the others would like to have".

One was general but looked at a customer related idea: "customers can adopt the strong player in the market because it is easy to do business with".

6.3 DISCUSSION OF THE FACTOR ANALYSIS

As discussed previously in Chapter 5, there are three factors evolved from the factor analysis, which are very important in relation to producing competitive advantage in the Internet arena in UK retail banking sector, namely differentiation, cost leadership and product uniqueness. This section discusses the factor analysis in these terms.

6.3.1 Factor 1: Differentiation

The differential strategy is the foundation of the retail offer advantage construct examined in this study. Ghosh (1994) proposes that the creation of an advantage based on differentiation, which he refers to as a differential advantage, is
necessary in order for a retailer to survive in the current competitive climate. Differentiation strategies seem to be more promising and profitable than cost advantage approaches (Porter, 2001; Kim et al., 2004) and the Internet offers many differentiation possibilities. In addition, constant innovation could be one of the few ways of differentiation (Sampler, 1998). In fact, innovation is the most important organisational performance clearly related to IT, together with efficiency, although it is certainly underrepresented in the literature because of the general focus on the latter (Dewett and Jones, 2001). The success of retail bank brands is often assessed in terms of the degree to which the organisation achieves a differential advantage (Schmitt, 1999). Retailers must not only achieve differential parity, they must also give consumers superior reasons to visit their stores compared to their competitors (Ghosh, 1994).

Farrance (1993) identified a series of areas where financial institutions pursue differentiation including: distribution (also see Devlin, 1995), technology, segmentation, pricing, product development, branding, service quality, and relationship banking. One of the factors of the rotated factor matrix from the study suggests that the first factor is associated with ‘differentiation’, with high loadings from five dependent variables: brand differentiation, high socio-demographic customer base, service quality, customer convenience and customer interaction. Retail banks might avoid direct competition by creating a distinctive position based on: - brand differentiation, a niche customer base (e.g. high socio-demographic status consumers), service quality, customer convenience, and customer interaction. The risks associated with a differentiation strategy include imitation by competitors and changes in customer tastes (Devlin and Ennew, 1997). Therefore financial
services differentiation may be limited due to the fundamental simplicity and duplicability of financial services, unless the targeted market is highly sophisticated and knowledgeable. Additionally, retail banks pursuing focus strategies may be able to achieve even greater differentiation in their particular market segments.

- “Brand differentiation” has the highest factor loading of 0.776 in the factor analysis.

Branding is a way to differentiate a company, product or service from its competitors, and to provide it with a personality that is both unique and appealing to potential customers. Brand differentiation is particularly important within services where there is difficulty in differentiating products and there is a lack of physical evidence to evaluate competing service offerings (Zeithaml, 1981; Ries and Ries, 2003). While product differentiation is difficult in the retail banking industry, as products are easily copied and price differentiation is also imitable, a distinct brand is one of the few ways in which banks can differentiate themselves from their competitors (Hankinson and Cowking, 1993).

Variations of differentiation strategy are thoroughly considered in “Bank strategic positioning and some determinants of bank selection” by Zineldin (1996). But the goal of achieving differentiation through the positioning of the brand may prove to be a slow process since many financial providers have simply not achieved differentiated brand positionings when it comes to the thought of a consumer’s perceptual map (Camp, 1996; Morgan, 1996; Reid, 1995).

McKinsey research claims that leading brands, including financial services brands, command an average price premium of five per cent over second placed
brands, and the strongest ones and 19 per cent ahead of the weakest brands (Debling, 1999). However, some researchers do not see premium price as necessarily linked with a brand differentiation strategy and note that in most sectors a successful brand strategy does not guarantee the ability to achieve consistent premium pricing (e.g. Stone, 1997 as quoted in Debling, 1999).

In financial services, which are by definition an area, which suffers from a lack of tangible characteristics and brand differentiation, the literature suggests that decisions to purchase services and products are more driven by feelings than pure product or service factors (de Chernatony and Dall’Olmo Riley, 1999; Palmer, 2001). Also products and services in financial services are easily reproduced (Goodyear, 1996). Indeed because of this it can be proposed to achieve brand differentiation in financial services requires the optimal promotion of the appropriate highly effective emotional values.

Also the literature considers that financial service providers have not made a particular success of creating and propagating their brand positioning or identity (Camp, 1996; Debling, 1998; Romanuik, 2001). The advertising and PR used by financial service companies is overwhelming, confusing and undifferentiated (Ries and Ries, 2003). Because of this lack of effective branding and brand differentiation in the financial services arena, consumers find it extremely difficult to make a distinction between the major banks. This reflects the fundamental lack of differentiation between them, combined with the inability of consumers to “sample” the various alternative service providers (Riley and de Chernatony, 2000).
A strong corporate image is one the most effective means for differentiation in retail banking (Richardson and Robinson, 1986; Flavian et al., 2004). A marketing manager with Barclays Bank speaks of the importance of image in the following way “…image, therefore, is the code word for becoming closer to the client, to understand what his needs and requirements are” (Davies, 1988:66).

An online brand experience encompasses all types of interaction between the customer and the brand in the virtual space. The importance of the general brand experience on the Internet has recently been emphasised by academics (Schmitt, 2000) and consultants (Kearney, 1999; Pine and Gilmore, 1999; Dayal et al., 2000; Norton and Hansen, 2000). Evans and Wurster (1999) suggest that brand-as-experience is far better suited to Internet businesses than brand-as-belief. They argue that brand-as-belief is vulnerable because a credible competitor can undermine belief in the brand, however, brand-as-experience can be enhanced by richer channels of communication. Rubinstein and Griffiths (2001:401) state, “…on the Net you have to orchestrate everything you do to deliver a highly differentiated and consistently positive experience”. This strongly echoes the previous sections with the interviews and open questionnaire emphasis on brand as a key competitive advantage issue.

- High socio-demographic customer base, with factor loading of 0.769, ranks the second highest in the list of differentiation factors.

Reichheld (1996) identifies that loyal customers are more profitable, because the costs of sales to those customers are amortised over a longer period.
Loyal customers tend to increase their purchases and percentage of spending, cost less to administer, refer others and are willing to pay a premium (ibid.).

Storbacka claims that profitability of the customer base is skewed, with some customers profitable and others unprofitable (Colgate, 1998). By focusing on delighting highly profitable customers, companies keep them loyal and eventually turn them into advocates who attract others who value the same things. Advocates are much more interested in product and service quality, and significantly less interested in price. It results in higher margins and more resistance to the price promotions of competitors. Advocates buy more often, are prepared to pay more and stay with you longer. They will also bring new customers. The strategy of focusing on your “best” customers, those who are most profitable is not ‘rocket science’ and yet it is surprising just how many organisations do not identify who these customers are. A typical large bank had fourteen major divisions covering credit cards, mortgages, etc., as well as the retail bank itself. Each division knew who its profitable customers were but because the database was not integrated, the organisation overall was unable to recognise its important customers. This led to highly profitable mortgage customers being treated as new, and therefore “high risk” by another division.

Customer Satisfaction is no longer enough. 80 per cent of customers who switch suppliers express satisfaction with their previous supplier. To lead the market companies need customers who are enthusiastic advocates? Such customers are highly loyal and drive new business to the company. For example 38 per cent of First Direct’s business comes from customer referrals. Advocacy comes from

332
creating a consistent customer experience that becomes synonymous with the brand.

Many retail banks and building societies have adopted this strategy, differentiating themselves, by focusing on specific, profitable market segments (arguably, for example this is very true of First Direct). These new streamlined organisations deliberately exclude customer groupings that are more difficult or expensive to deal with. Typically these organisations are equipped with the latest technology to assist them to continuously drive costs down even further. They then use these cost advantages to compete on price.

This approach of segmenting the market is based on the famous 80/20 rule. The idea is that 80 per cent of the costs are often associated with only 20 per cent of customers and conversely a relatively small percentage of the customers produce the lions’ share of profits. The strategy has proved successful for its early adopters and certainly changed the market. But there are no constants in competitive business and no environment remains the same – in this case, competitors invested in similar approaches and, to a large extent, have caught up with the market leaders like First Direct. While later entrants did not experience the brand benefits from being first in, they undoubtedly learnt from early mistakes (e.g. the implementation of systems that were hardwired and expensive to change) made by the early adopters. The end result is a highly competitive market with low profit margins. A new customer represents little profit or even a loss for a bank.

As Porter (various) and Mathur (1992) demonstrate, the only way out of the competitive trap is to continually differentiate. In many sectors, such as the
financial services industry, businesses cannot differentiate much on policy coverage - their fundamental products are constrained to statistical and cost relationships to which all players must bow.

As the economy and confidence improves, financial services businesses are now expanding back into those segments recently deserted - expanding their offerings to include the more difficult and riskier customers. Those companies, such as Bank of Scotland, who have developed effective processes and systems to enable the efficient handling of exceptions (represented by the more difficult customers and more awkward products), will continue to enjoy the advantages of differentiation.

The most competitive businesses are now those who can extend their market without adversely affecting the average unit cost of customer transactions and yet still maintain control over the risks. We would suggest that the most appropriate method of maintaining a balance is through a well-educated and trained work force. Where decisions involve an assessment of risk, it is impractical to assume that all business rules can be embedded and automated by a computer. In such circumstances each case must be judged on its merits rather than according to some mechanistic process definition. A broad cross-section of industry’s operations is still based on trained employees undertaking cases using their professional knowledge - financial services, hospitals, legal services and government are good examples.

Many banks seem to adopt the strategy of rewarding new customers rather than their most profitable customers. For example, some banks offer better rates of
interest to prospective customers than existing clients, even though those clients may well move on when the better interest rate has been competed away.

A more optimal strategy for maximising profitability would be the focus strategy, which concentrates on a narrow segment, e.g. high socio-demographic customers. This supports the desire of many participants in both the interviews and open questionnaire to develop high socio-demographic customer bases.

Service quality has factor loading of -.680, customer convenience has factor loading of -.572, and customer interaction has factor loading of .516.

Providing better customer service is a way to keep more customers, and the longer a customer is with a bank, the more profitable they become as transaction costs are minimised. Studies show that a two per cent increase in customer retention has the same impact as a ten per cent reduction in operating costs (Lazos, 1998). In light of this significant impact, it is important to consider how can banks do a better job of retaining customers. Customers leave banks for many reasons, including poor service quality, mistakes, impersonal service, changes in convenience, changes in financial life stage, changes in pricing, better offers from other institutions and the institution's failure to meet their needs or expectations. In recent years, merger activity has added to the level of defections. Boosting service on the Internet is one of the most direct ways to improve customer satisfaction, as the Internet remains a key service delivery channel. Customer loyalty arises when an Internet company offers better service than other firms (Yang and Jun, 2002).
Reichheld and Schefter (2000) proposed that convenience was the top priority for the largest single segment of online customers, who were willing to pay more for greater convenience. A mutual understanding with customers that banking should be easy and convenient should produce distinct advantage for the retail bank offering it.

As the nature of the customer relationship changes, retail banks need to better interact, understand and predict customer likes, dislikes and behavior. Banks will have to develop appropriate data acquisition strategies to gather pertinent information in a way that customers will feel comfortable accepting.

A key attraction of the Internet in this relational role is the level of interactivity that can exist between a buyer and a seller. Deighton (1996:151) proposes that “the term interactive ... points to two features of communication: the ability to address an individual and the ability to gather and remember the response of that individual”. It is argued that the promise of interactivity lies in its ability to put a more human face on the marketplace without losing the scale economies of mass marketing (Blattberg and Deighton, 1991). Again this discussion supports the interview findings and open questionnaire results.

In summary, therefore differentiation requires that the firm create products and/or services that are unique and valued.

6.3.2  Factor 2: Cost Leadership.

The second factor is associated with ‘cost leadership’ with loadings from operational cost reduction and cost reduction through marketing, advertisements,
maintenance etc. Cost leadership is one of the most widely studied Internet advantages (see the detailed discussion in section 2.4.3, which will not be repeated in this section).

Cost leadership though the Internet provides even more opportunities to manage costs and achieve greater efficiencies, which can change and improve how value chain activities are performed (Kim et al., 2004). The reduction in cost allows banks to cut prices to compete with their competitors. In the retail banking sector, the branch sales force is particularly important and with the cost of branch and other costs, sales costs are very high. With increased competitive pressures, there is a need to consider how to control of managing a sales force while at the same time keeping enough high quality product and service quality. Johnson (1987) argues that retailers have essentially two bases upon which competitive advantage can be sought, namely, cost-focused and market-focused.

6.3.3 Factor 3: Product Uniqueness.

The third factor is heavily loaded on two variables, namely product range and product cross selling. Factor three is associated with 'product uniqueness'. Product uniqueness refers to the ability of a bank to add features to create the impression of uniqueness by the consumer.

Sustainable differentiation advantages include a unique activity or product valued by customers and that customers perceive to be better than or different from the product of the competition that competitors could not easily imitate (Grant, 1991; Porter, 1985).
During the 1980s market stability was greatly affected by new government legislation, which had the stated aim of providing consumers with greater choice. There was limited scope for the banks to compete on the basis of price and hence their response to the new legislation was rapidly to expand their product portfolios (Chaston, 1995).

Retail banks and building societies have traditionally offered a diverse range of saving accounts with a variety of complicated notice periods and bonus payments. However, new business figures from direct savings providers (e.g. ING direct) show that consumers value a more transparent saving account with no hidden catches (Datamonitor.com, 2004). As Mr. Rodney, Head of Marketing Communications of Egg, claims, “retail banking’s current focus appears to be on the wrong issues”, he says. “Banks over-deliver. Customers are offered a variety of product differentiations for which they have little interest. And retail banks today are not responding adequately to the challenges of the market”.

Retail banks could take the advantage of consumers’ deeply felt emotions to improve product offerings. Recent successes in the UK - such as The Woolwich “Open Plan”, Egg’s “fund supermarket”, Lloyds TSB’s “value added accounts”, and the Halifax “current account”, showing that differentiation is possible even in an apparently commoditised product set.

Banks will have to develop customised and personalised packaged offerings to meet specific needs. This increases the need for banks to effectively price their services and also put an infrastructure in place that can support rapid innovation and deployment of products and services to promote competitive differentiation.
Indeed, Sinha (2000) proposes that by creating products that meet consumers’ needs in niche markets, companies might be able to command higher prices.

In summary, retail banks and building societies need to decide the appropriate product range to fit into their brand position and which also supports and enhances their long-term business strategies.

Deregulation of financial services in the UK, demutualisation of building societies and an attempt by many financial service providers to offer consumers “one-stop” shopping, have increased competition as to who should provide more or less similar personal finance offerings to consumers: banks, insurers, bancassurers, or building societies (Mintel Customer Retention, 1996). In an Market Research Society Conference qualitative paper Hoskin and Beaver (1997) state: “Over the past few years, the financial services industry has seen increased levels of switching supplier across almost all product areas ... A logical response for financial services providers to this activity is to encourage customers to stay loyal to them through retention schemes, but also through cross-selling of other products to further ‘cement’ the relationship”.

After years of focusing on cross-selling, retail banks have realised that the road to profitability is lined with satisfied customers – the longer a customer remains with one retail bank, the more lucrative that relationship can become, as discussed already above. Banks must focus on customer loyalty in order to create cross-selling and up-selling opportunities.

The strategic options for assisting cross-selling and building competitive advantage, covered in this report, are in harmony with prior research. These are
cost leadership, differentiation, and focus (Hambrick, 1983; Dess and Davis, 1984; Miller and Friesen, 1986b; Kim and Lim, 1988; Powers and Hahn, 2004); customer service differentiation (Hambrick, 1983); and a combination of these (Hambrick, 1983; Dess and Davis, 1984; Miller and Friesen, 1986b; Kim and Lim, 1988; Robinson and Pearce, 1988). One difference between these options and those of prior studies is that the cost leadership group placed significant emphasis on only one competitive method that might be considered an aspect of differentiation, a strategic approach, which is not inconsistent with Porter's classification criteria. In addition, the cost leadership and customer service differentiation strategy types are similar to the efficiency and service strategy types identified by Robinson and Pearce (1988).

6.4 DISCUSSION OF THE HYPOTHESIS TESTING

In this section the results of the survey in relation to the hypothesis are discussed. A similar pattern to that established above for the results from the interviews is used to discuss the findings. Comparisons with the results of the interviews and open questionnaire are made.

In order to contextualise some of the concepts raised by the hypotheses please see section 2.4 for the background to the concepts.

6.4.1 Internet Strategy

It was hypothesised that:

There is a positive relationship between the size of the bank and the level of Internet usage, i.e.
Hypothesis 1a: Bigger banks tend to have a higher level of Internet usage.

There is a negative relationship between the size of the bank and the timing of Internet entry, i.e.

Hypothesis 2a: Bigger banks tend to enter the Internet arena earlier.

These hypotheses follow on from the results of the discussions of the interviews and open questionnaires discussed earlier on in the chapter and were both not rejected in the analysis.

The clear analysis results contrast with the literature where there are mixed views. On the positive side, it appears that a large majority of UK retail banks have at least an informational web site (level 1) and a transactional Internet site is almost a mainstream offer, with virtually all large banks offering them (Berger, 2003; DeYoung et al., 2003). In addition, supporting the researcher's results, a number of researchers claim that there is a positive relationship between firm size and the ability to innovate, because large organisations have more financial resources, more marketing skills, and more technological knowledge (e.g. Chandy and Tellis, 1998; Damanpour, 1992; Dewar and Dutton, 1986; Pavitt, 1990; Arnott and Bridgewater, 2002; DeYoung et al., 2003). Large organisations have more slack resources for new projects and diversification, greater challenges and more opportunities for promotion and growth among their employees, and more control over the external environment (Damanpour, 1996). They are thus better able to tolerate potential losses caused by unsuccessful innovations.

On the other hand, small businesses generally suffer from server constraints on financial resources and a lack of in-house information technology expertise (Welsh and White, 1981). Poon and Swatman (1999) state, "how far into the
future small business will fully embrace Internet commerce is uncertain”. Small businesses often lack the resources to incrementally forage into the online world without a clear understanding of the benefits or barriers to such a strategy.

However in contrast to our results, other authors argue that small organisations are more flexible and better able to implement innovation due to better cross-functional cooperation (e.g. Mintzberg, 1979 quoted in Damanpour, 1996; Ramsaran, 2004). The Internet has enabled increasing numbers of smaller banks to provide banking services through this new delivery channel. Although conventional wisdom would suggest that smaller banks are at a disadvantage in the financial services arena, this has generally not been the case in relation to the Internet (Moskow, 2001). Smaller banks often understand the needs of their customers better and respond quickly with a personalised service (ibid.). Whereas big banks are more bureaucratic and less flexible, are unable to change and adapt quickly, and tend to have impersonal work environments (Hitt et al., 2001). Nevertheless, larger banks can utilise their brand identity and larger budget for technology and marketing.

Ramsaran (2004) claims, “...With smaller banks, there is a lot of technology innovation happening. These banks have a large advantage because everything they do is a lot smaller.” As a significant return on investment might not result from the investment, big banks sometimes delay adopting innovative technologies or platforms. “For large banks, it is just economically not feasible to be a rapid adopter of anything. They need to see that the scale is industrialised and repeatable” (ibid.). For smaller banks, it may be easier to implement new systems.
According to Futurebanker magazine, 39 per cent of small banks saw no advantage to Internet banking and they tend to use their branches more.

Clearly, there is no consensus among researchers on the size-innovation relationship, either in terms of Internet usage or rate of adoption. Each group of researchers can refer to empirical findings, which support their argument. Therefore, the relationship between firm size and innovation, and therefore competitive advantage will be considered as both a mediator and dependent variable.

We now consider the relationship between retail banks and building societies.

_Hypothesis 1b: Retail banks tend to have a higher level of Internet usage than building societies._

There is a negative relationship between the type of the bank and the timing of Internet entry, i.e.

_Hypothesis 2b: Retail banks tend to enter the Internet arena earlier than building societies._

These hypotheses are not rejected by the interviews and open questionnaires discussed earlier in the chapter as well as by the survey results. They are also supported in the literature.

At present time there are only 65 members of the Building Society Association (www.bsa.org.uk). According to Thwaites and Lynch (1992), building societies are adopting a more marketing-led approach than other players in the personal financial service sector in order to remain competitive.
building societies are perceived as ‘old fashioned’ and adopt cost-led strategies (McKillop and Ferguson, 1993), and therefore they make comparatively little investment in technology (He and Balmer, 2004). It is also assumed that building societies make more cautious investments in information technology (McKillop and Ferguson, 1993; He and Balmer, 2004).

6.4.2 Internet and Competitive Advantage in Retail Banking Sector

There is a positive relationship between the size of the bank and managers’ perception of the cost reduction provided through the Internet, i.e.

*Hypothesis 3a: Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from smaller banks.*

There is a positive relationship between the type of the bank and managers’ perception of cost reduction through the Internet, i.e.

*Hypothesis 3b: Managers from retail banks tend to consider that the Internet has provided greater competitive advantage by greater cost reduction than managers from building societies.*

There is a positive relationship between the level of Internet usage and managers’ perception of cost reduction through the Internet, i.e.

*Hypothesis 3c: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by greater cost reduction than managers from building societies.*
There is a negative relationship between the timing of Internet entry and managers' perception of cost reduction through the Internet, i.e.

**Hypothesis 3d:** Managers from banks with earlier Internet entry tend to consider that the Internet has provided greater competitive advantage by greater cost reduction.

The first three of these hypotheses are again not rejected by the interviews and questionnaire findings and analysis. The last is not supported by the results. The first three are not contradicted by the literature and implicitly, but not explicitly, not rejected by it. We conclude therefore as discussed previously, that there is a gap in the literature in this area.

The literature does support the view that the Internet has had a significant impact on the retail banking sector, enabling retail banks to achieve competitive advantage (Daniel, 1999) and provides various routes, including cost reduction (Peppard, 2000; Mols, 2000; De Young, 2001). Given lower operational costs, Internet banks could pass savings on as a lure for new customers (for instance, ING is a good example of this) to produce competitive advantage. Low prices attract customers and make them purchase products (Jarvenpaa et al., 2000). Achieving banking transaction costs reduction has proved to be difficult, both for traditional retail banks and for new players. Contrary to somewhat naïve expectations, development of a robust, secure and cost efficient Internet banking platform has proved to be a difficult task. Even where substantial operating costs savings were obtained, e-banking challengers had to use these savings for marketing expenditure and other customer acquisition costs. The Internet cost equation is considerably
more complex than initially contemplated. Recently, as many as 30 percent of Internet banks were cited as having unprofitable websites and related Internet operations (Rackley, 2000). Retail banks and building societies share the same perspective in this area but, in general, building societies are smaller and offer less comprehensive Internet banking services. From this one could conclude that the literature implicitly, but not explicitly supports the size and cost reduction hypotheses.

**Brand Image**

There is a positive relationship between the size of the firm and managers’ perception of brand image improvement through the Internet.

*Hypothesis 4a: Managers from bigger banks tend to consider that the Internet has provided more competitive advantage by improving brand image.

There is a positive relationship between the type of the firm and managers’ perception of brand image improvement through the Internet.

*Hypothesis 4b: Managers from retail banks tend to consider that the Internet has provided more competitive advantage by improving brand image than managers from building societies.

There is a positive relationship between the level of Internet usage and managers’ perception of brand image improvement through the Internet.

*Hypothesis 4c: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by improving brand image.
There is a negative relationship between the timing of Internet entry and managers’ perception of brand image improvement through the Internet.

_Hypothesis 4d:_ Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by improving brand image.

All of these hypotheses were supported by the results. The literature does not address any of the brand hypotheses; this is in spite of the fact that branding has been one of the hottest topics, both in the literature and in the business over the last few years. The literature makes no distinction between sizes or types of bank. It does however discuss the importance of brand in the Internet context.

As Internet usage grows swiftly, brands are becoming even more important than they have been in other channels or environments (Bergstrom, 2000). A popular perspective suggests that brand equity is a source of added value and sustainable competitive advantage for firms (Bharadwaj et al., 1993). The Internet has become an increasingly important part of branding and communication strategies (Riley and Lacoix, 2003). Since the Internet is a new medium for service delivery, consumers remain wary of the potential dangers and frauds from banking on the Internet. Further, because there is no physical local presence for the bank, customers are more likely to be hesitant to trust an unknown Internet site. To combat these fears and build traffic, retail banks and building societies invest heavily in marketing campaigns for their Internet banking.

The literature appears to contradict the hypothesis 4b suggesting that there is a growing difficulty experienced by customers in differentiating between retail banks and building societies in terms of product offerings and customer service.
levels (McGoldrick and Greenland, 1992) which would suggest that there can be no
difference in competitive advantage between retail banks and building societies.

The literature suggests that brand name alone is not sufficient in a world
where the Internet leads the consumer to “best buy” information (Furash, 1999).
The brand has to be tied to special products and, particularly, services to enable the
bank to perform better than its competitors. In line with hypothesis 4a, banks that
have more sophisticated usage in the Internet (e.g. with better functions, easier to
use, and better security and privacy control) are more likely to have a better image
improvement through the Internet implementation.

Service Quality

It is hypothesised that there is a positive relationship between the size of the
firm and managers’ perception of service quality.

_Hypothesis 5a: Managers from big banks tend to consider that the Internet has
provided more competitive advantage by improving service quality._

There is a positive relationship between the level of Internet usage and
managers’ perception of service quality.

_Hypothesis 5b: Managers from banks with a higher level of Internet usage tend to
consider that the Internet has provided greater competitive advantage by improving
service quality._

There is a positive relationship between the size of the firm and managers’
perception of customer convenience offered by the Internet, i.e.
Hypothesis 5c: Managers from big banks tend to consider that the Internet has
provided more competitive advantage by offering customer greater convenience.

There is a positive relationship between the level of Internet usage and
managers’ perception of customer convenience offered by the Internet.

Hypothesis 5d: Managers from banks with a higher level of Internet usage tend to
consider that the Internet has provided more competitive advantage by offering customer
greater convenience.

There is a positive relationship between the size of the firm and managers’
perception of customer interaction improvement through the Internet, i.e.

Hypothesis 5e: Managers from big banks tend to consider that the Internet has
provided more competitive advantage by improving customer interaction.

There is a positive relationship between the level of Internet usage and
managers’ perception of customer interaction improvement through the Internet, i.e.

Hypothesis 5f: Managers from banks with a higher level of Internet usage tend to
consider that the Internet has provided more competitive advantage by improving customer
interaction.

Generally these hypotheses are not rejected or contradicted by the results
from the interviews. This is because all interviewees considered that the Internet
has improved service quality and customer convenience. The exception to this was
Clydesdale, which was one of the less developed Internet banks, which felt that
because the Internet took away the human element of service quality, that it was
thereby reducing it. Arguably this was because Clydesdale had a less developed
Internet offering, which fits with hypothesis 5b somewhat and into hypothesis 5e.
somewhat and strongly not rejects hypothesis 5f. However the rest of the
interviews do not support or contradict.

As far as the results of the analysis were concerned, they rejected
hypothesis 5a and hypothesis 5c and marginally not rejected hypothesis 5b and
hypothesis 5d but did not reject hypothesis 5e and hypothesis 5f.

As far as the literature is concerned it also supports hypothesis 5e and
hypothesis 5f, as it asserts that more extensive Internet offerings provide a greater
level of customer service. Quentin Ashby, Director at Virtual Surveys Ltd, who
run a survey across all online banks, says “Some of the more highly rated online
banks, such as Smile and First Direct, have continued to improve levels of
customer satisfaction, but also some of the less highly rated online banks, such as
Alliance & Leicester, NatWest and Egg, are now showing signs of improved
performance” (See Appendix 1).

Virtual Surveys (2004) conclude that the higher levels of customer
satisfaction seem to be primarily due to online banks improving the speed and
usability of their banking sites. The range of products and services offered online
has also improved. In particular, customers are rating online money transfer, direct
debit and standing order functions more highly than at the same period the previous
year. In addition, Petry (2001) noted that the frequency of sign-ons by existing
customers was increasing.

Ashby (2002) commented, “Whilst ratings for most online banks have
improved over the past year, the bigger operators have so far failed to achieve the
levels of satisfaction obtained by the likes of Smile and First Direct.”
As for Internet banking, relatively little empirical research has addressed the issue of the key underlying dimensions of Internet banking service quality. According to Joseph and Stone (2003:200), high scores on the ability to deliver service via new technologies appear to be correlated with a high quality of service. Personal banking experience impacts on attitudes and behavior in several separate ways. Consumers dissatisfied with branch banking are more likely to change to Internet banking than satisfied customers (Karjaluoto et al., 2002). Not only waiting, but also poor customer services have been impacting the consumer movement from branch banking to electronic delivery (ibid.). The most frequently mentioned factors providing the main sources of satisfaction or dissatisfaction were reliability, responsiveness, access and accuracy. The most talked about service quality issues in the Internet banking area were concerns with technical and financial resources.

In summary, in support of hypothesis 5e and hypothesis 5f, large banks are more likely to have greater technical and financial resources to support a website (Kowtha and Choon, 2001, as quoted in Hausdorf and Duncan, 2004), and do better than smaller ones in the information delivery field at higher levels of interactivity (Diniz, 1998). Larger banks are more geographically diversified and have more ‘physical evidence’ to better utilise their Internet strategies.

However, many banking industry analysts predict that power in the retail financial services sector will shift very soon to innovative entrants offering an attractive, efficient and customer-centric consumer banking interface through the Internet (Hensmans et al., 2001) which would contradict the above hypotheses.
Finally, the Internet is mainly associated with customer interaction (Meuter et al., 2000) and a key attraction of the Internet is the level of interactivity that can exist between a buyer and a seller (Durkin and Howcroft, 2003: 61). In the financial services sector, e-commerce offers the promise of increased information about customers and, therefore, provides the opportunity for more detailed analysis of customers’ behaviour and needs (ibid.). The interactive nature of the Internet, enabling more personalised marketing offers, allows the potential to create additional value to consumers. The Internet is regarded as potentially the "ultimate relationship marketing tool" (Zineldin, 2000), allowing retail banks to become truly customer focused in potentially creating superior value (Srirojanant and Thirkell, 1998), this does not reject hypothesis 5f.

**Enhances Customer Base**

It is hypothesised that there is a positive relationship between the size of the firm and managers’ perception of customer base enhancement through the Internet, i.e.

*Hypothesis 6a: Managers from big banks tend to consider that the Internet has provided more competitive advantage by attracting more new customers.*

There is a positive relationship between the level of Internet usage and managers’ perception of attracting new customers through the Internet, i.e.

*Hypothesis 6b: Managers from banks with higher Internet usage tend to consider that the Internet has provided more competitive advantage by attracting more new customers.*

There is a positive relationship between the timing of Internet entry and managers’ perception of attracting new customers through the Internet, i.e.
Hypothesis 6c: Managers from banks with earlier Internet entry tend to consider that the Internet has provided more competitive advantage by attracting more new customers.

There is a positive relationship between the size of the firm and managers' perception of retaining high profile customers through the Internet, i.e.

Hypothesis 6d: Managers from big banks tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

There is a negative relationship between the level of Internet usage and managers' perception of retaining high profile customers through the Internet, i.e.

Hypothesis 6e: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage by better retaining high profile customers.

The interviews and the literature agree on the ability of the Internet to efficiently attract new customers. Therefore for the general customer base hypotheses, the interviews and literature do not support them because the customer base is generally enhanced for all Internet banks, irrespective of size etc. For the last two hypotheses, which relate to high value or high profile customers, in this case the results of the analysis, the literature and the interviews provide some support for these hypotheses.

As suggested in the previous paragraph, the Internet is a very efficient customer developer for all banks, because the Internet supersedes or reduces physical boundaries, which allows retail banks to reach a larger base of potential buyers (Peppard, 2000; Quelch and Klein, 1996; DeYoung, 2001; Dutta and Biren, 2001). There is considerable literature support for improved customer communication for all Internet banking operations. In addition, present Internet
demographics suggest that it is the relatively well off and the well educated that use
the Internet, which suggests that potential E-banking users are high net worth
customers (Jayawardhena and Foley, 2000; Polatoglu, and Ekin, 2001), which
again is not bank size or type differentiated, thus the literature does not support the
first three of the hypotheses set six. Indeed the literature in part contradicts the
hypotheses. For example, in relation to small firms, Levenburg and Dandridge
(2000) propose that the Internet offers “an opportunity to cost-effectively reach
new markets, primarily because the costs associated with establishing an Internet
presence are relatively low”.

The last two hypotheses relate to high value or high profile customers, in
this case the results of the analysis; the literature and the interviews provide support
for these hypotheses. The interviews also suggested that high quality marketing
data and customer segmentation can also build competitive advantage by enabling a
bank to tailor its offering of products and services to particular customer needs.
While in theory, any bank could obtain the data; it is difficult to assemble the
appropriate marketing staff and systems, so this area does create barriers to entry
and sustainable competitive advantage. Again this does not reject hypothesis 6d, in
other words, that the resources of the bigger banks can provide more competitive
advantage.

In addition, as discussed above, present Internet demographics suggest that
it is the relatively well-off and the well educated that use the Internet, which
suggests that potential E-banking users are frequently high net worth customers
(Daniel, 1999; Jayawardhena and Foley, 2000; Karjaluoto et al., 2002; Kolodinsky
et al., 2004). This can be of value, especially when considering the new generation
of affluent private customers (young, educated, highly paid individuals, rich heirs and wealthy divorcees), is generally well-versed in technology, typically employed in managerial posts, is open-minded and more risk-embracing than average people (Salmen and Muir, 2003). Jayawardhena and Foley (2000) suggest that such a better-educated and wealthier segment represents a profitable and less risky customer base for many reasons. Most importantly, they deal with larger sums of money, and therefore, have more purchasing power to buy banks' products and services, such as investments and insurances.

Large banks are usually more competitive and have narrower interest rate spreads (lending rate minus deposit rate) and smaller net interest margins: (interest income minus interest expense) divided by assets. Consequently, large banks are more likely to provide a better product range (better lending and saving rates) and more advanced Internet-based offerings to attract new customers and maintain high profile customers; so again hypothesis 6d is supported as the big banks have more advantage with sophisticated high profile customers, who have a requirement for wider product ranges and better value products.

In relation to hypothesis 6e, all the interviewed banks, bar Clydesdale, considered that the Internet enabled them to access high value/profile customers in a more efficient manner. All the respondents were convinced that it was becoming more and more difficult to attract high value customers. This is partly due to the obvious income/spending benefits of having higher socio-economic customers. Clydesdale on the other hand, arguably because of the difficulty of attracting high value customers, targets primarily the lower socio-economic groups like BC and DD. This assertion somewhat supports hypothesis 6e as the Clydesdale has a
lower level of Internet usage and they were the only bank to not support the hypothesis.

Although the respondent from Leeds and Holbeck believes that the Internet will attract new customers, he believes that it is difficult to maintain high value customers who are more price-conscious and will use aggregate web sites like Money Supermarket to find the best product and service offers. He said, “Customers are more likely to switch banks to obtain the best saving rate today, and the Internet is a perfect channel to provide high interest rate and low mortgage rate information”. Normally, the customers who are constantly looking for the best saving account belong to AB and C1 socio-economic groups. So although he was at the time of the survey a low level Internet user, he believed that the Internet can enable Leeds & Holbeck to obtain new customers from the high profile market segment. However to really succeed in this he would have to produce high quality, good value products to attract these sophisticated, high profile customers, which could be difficult due to the building society’s small size, (although he would assert that the building society structure could help, with no dividends being paid, etc).

In relation to hypothesis 6e, this is another area where the aforementioned void in the literature remains with respect to Internet usage, despite being repeatedly noted by key writers in the area (e.g. Mols, 2001). Consequently, shedding light on Internet usage constitutes an extremely important and timely research avenue.

However there is some in-direct support for the hypothesis 6e in the literature. More affluent customers, especially in the segments of younger, highly
educated, highly paid, or wealthy inheritor customers, are a more lucrative/revenue target segment, which expects personalised service. They expect this service to be quick, state-of-the-art, convenient and efficient (Salmen and Muir, 2003). Some degree of personalisation is important to maintaining customer loyalty (Luneborg and Nielsen, 2003). These more affluent customers are also looking for variety; therefore a multi-channel approach can be cost-effective. This supports the idea that a higher level of Internet usage would satisfy those customers and support hypothesis 6e.

So in summary, the interviews and the literature agree on the ability of the Internet to efficiently attract new customers and that this is not size (hypothesis 6a) (indeed the literature notes that small banks may have an advantage), usage (hypothesis 6b) or early entry (hypothesis 6c) dependent. Therefore for the general customer base hypotheses, the interviews and literature do not support them because the customer base is generally enhanced for all Internet banks, irrespective of size etc. The results of the analysis are the same, except that there was marginal support for a higher level of Internet usage providing an advantage in attracting new customers. For the last two hypotheses, which relate to high value or high profile customers, in this case the results of the analysis, the literature and the interviews all provide some support for these hypotheses. Hypothesis 6e is however only weakly supported by the interviews.

Cross-selling

There is a positive relationship between the size of the bank and managers’ perception of product cross selling ability, i.e.
Hypothesis 7a: Managers from big banks tend to consider that the Internet has provided more competitive advantage through greater products cross selling.

There is a positive relationship between the level of Internet usage and managers' perception of product cross-selling ability, i.e.

Hypothesis 7b: Managers from banks with a higher level of Internet usage tend to consider that the Internet has provided more competitive advantage of through greater product cross selling.

The first hypothesis is supported by the results of the analysis and the literature. There are two parts to this hypothesis, firstly that the Internet supports cross selling. There is literature on this, for example, (Vandermerwe, 1999). Indeed the literature goes further, and suggests that for a retail bank just starting Internet services, the biggest contributor to profits is revenues from cross-selling new products (Orr, 2001). Cross-selling ability in the retail banking sector has been measured as the number of products purchased by one account holder (DIBC, 2002). An Internet bank’s ability to effectively cross sell, derives from its providing an appropriate product offering, clever strategies to maximise the sale of products, excellent customer service and favorable customer retention/attrition levels. However given the ease of communication that the Internet provides it is difficult for an Internet bank to obtain lasting competitive advantage from the quality of its product range and cross selling ability.

Secondly it is hypothesised that the big banks get more advantage. Cross-selling a vast array of financial services can require a bank to operate on a large scale and/or have a high degree of financial expertise (DeYoung, 2001).
Santomero and Eckles (2000) emphasise that the real benefit of multiple product
distribution may not only be in production efficiencies but also in customer service,
in what they term the “consumption economy”; which derives from the cross
selling potential of a retail bank that produces various products and services. The
result will be higher revenue and a better return from any customer segment, if
consumers of retail banks find it more convenient to purchase multiple products
from the same bank. Researchers have proved that customers have the willingness
to undertake one-stop shopping, that is buying many products and/or services from
one supplier (Latimore et al., 2000; Jun and Cai, 2001). All this literature strongly
supports hypothesis 7a.

According to Datamonitor (2004), consumers hold more financial products
with Lloyds TSB than any other financial services organisation followed by HSBC,
Barclays, NatWest and Halifax. RBS has the highest packaged account
penetration levels followed by Lloyds TSB, NatWest and Barclays and Co-
operative Bank. Datamonitor.com (2003) maintains that the UK Big Four retail
banks dominate the cross selling of financial products, like personal loans. Some
“packaged accounts”, with a “lock in” effect, are designed to promote cross selling
and the usage rates on package accounts are likely to be high. RBS has high
packaged account penetration levels whereas Lloyds TSB is top in numbers of
packaged accounts. In theory, these represent measures of the quality of the
product range and cross selling ability, and again the bigger banks have an
advantage and the literature supports 7a.

The analysis from Datamonitor (2004) also shows that the bank branch is
one of the key assets in the fight to cross sell products and/or services to customers.
A significant proportion of multi account holders chose their bank because it had a branch nearby. There is no doubt that big banks have more branches than their small competitors. This literature somewhat contradicts the hypothesis 7a, as it asserts the importance of branches, thereby reducing the importance of the Internet in the cross selling process, but strengthening the importance of bank size in the hypothesis.

In relation to the interviews, a number of respondents suggested that the Internet which provides customers with other related products, could improve service quality. Cross-selling other non-banking products can be a win-win situation for both the bank and customers. The bank gains other revenues and provides a better service thereby hoping to increase customer loyalty, while the customer has easy access to a number of products. Therefore the respondents in the interviews did not reject the hypothesis 7a.

There was no consistent view among interviewees on whether retail banks and building societies that offered more products gained greater competitive advantage by using the Internet. Both the respondents from RBS and AIB considered that a fuller product range will bring them competitive advantage from utilising the Internet, because of cross selling opportunities. In contrast, the respondent from First Direct claimed that a too-complicated product offering would be a competitive disadvantage. This is because customers are reluctant to buy all their products online, as they want to have human interaction with staff members. They will still revert to using the telephone or even going through branches.

The respondent from Leeds and Holbeck did “not really” feel that a fuller product range will bring them competitive advantage from utilising the Internet.
This is because customers who bank online are more likely to compare banking products online. As discussed above, third parties provide very transparent information for Internet users about the best financial product available from different providers. Arguably both for this reason, and because of the profile of online customers discussed at some length previously in this paper, online customers are more likely to buy best price/value/quality products from different providers.

The respondent from Clydesdale bank did not agree with this proposition. First he made a general point that in many ways he felt that the banking product range had not changed fundamentally “for decades”. He again contended that the Internet would not help to sale a complex product range due to the high price transparency on the Internet. Also, customers today are willing to shop from different financial service suppliers.

Given that the Leeds and Holbeck and Clydesdale are smaller banks and RBS and AIB larger, the interviews provide more support for hypothesis 7a.

Indeed the fact that the Leeds and Holbeck and Clydesdale were more negative about the competitive advantage from the Internet in relation to cross selling indicates some support for the last hypothesis, 7b, in contrast to the literature which is silent on this issue and the results of the analysis which rejected the hypothesis.

Hypothesis 7b can not have literature support or rejection as few research studies have been conducted to quantify Internet usage in retail banks. For instance, Akhavein et al. (2001) point out that few quantitative studies have been
undertaken on the diffusion of new financial technologies. While there are a
number of exploratory studies beginning to emerge in relation to Internet financial
services, these tend to be in-depth single organisation analyses. Daniel's (1999)
'Provision of Internet banking' is arguably the only study that quantifies the current
provision of Internet service by major retail banks in the UK and the Republic of
Ireland. Nonetheless, only the 25 largest retail banks and building societies were
studied to analyse factors affecting the provision of Internet banking. Although the
organisations under investigation represent approximately 75 per cent of UK and
Irish retail banking assets, they are by no means representative of the whole UK
and Irish Retail Banking sectors. The study failed to look at banks of different
sizes and their likely varying usage of the Internet. Although five factors were
identified as affecting the usage of the Internet in these banks, the study failed to
provide an insight into the correlation between these factors and the provision of
the Internet usage. No building societies have been included in any of the studies.
This void in the literature remains, despite being repeatedly noted by key writers in
the area (e.g. Mols, 2001). Consequently, shedding light on the Internet usage
constitutes an extremely important and timely research avenue but prior to that
happening, the literature remains silent on this issue.

So in summary, in general, the results of the analysis in relation to
hypothesis 7a are supported by the literature (with one exception discussed above)
and the interviews alike. As far as hypothesis 7b is concerned, the literature is
largely silent and the interviews indicate some slight support; but the results of the
analysis reject the hypothesis.

362
6.5 DISCUSSION OF OTHER SURVEY RESULTS

This section considers the sustainability of and barriers to competitive advantage, with a particular emphasis on the competitive actions of rival retail banks. Sustainability was a key part of the interviews, had a survey section devoted to it and is discussed here as a separate survey result.

6.5.1 Sustainability of Competitive Advantage

A striking find of the survey was that managers who believed that the Internet has provided retail banks and building societies with competitive advantage have markedly different views when it comes to 'sustainability'. Just fewer than 20 per cent did not believe that the Internet has provided sustainable competitive advantage for their firms. Over 25 per cent of respondents believed these advantages will last less than two years. Fewer than 20 per cent took a more optimistic view that the competitive advantage will last for more than five years. Indeed, many scholars suggest that a competitive advantage is temporary because of the dynamic nature of competition (e.g. McNamara, 2003). This has been discussed at length in 2.2.5.

One of the important factors that influence the sustainability of competitive advantage for one bank is the Internet strategy of its competitors. A number of relevant comments are outlined below.

Some managers maintained that the sustainability of competitive advantage "depends on competitor activity", i.e. "on how quickly others join and have the same level of Internet capability". Another similar answer was: "It will only last
as long as not all providers in a marketplace are using it. Once all providers are using the Internet, it does not provide a competitive advantage to any one of them”.

Secondly, the sustainability of competitive advantage that the Internet brought depends on “full channel integration”, i.e. on “how the Internet is dovetailed into other communication channels”. Further, it depends on “whether or not the Internet continues to develop in new ways as a sales channel or stagnates” and “on the future use of the Internet in society”.

Hence, many managers’ views fit into the “hypercompetition” view of competitive advantage (D’Aveni, 1994; Bettis and Hitt, 1995), which has been discussed in some detail in Chapter two. Hypercompetition is “characterised by intense and rapid competitive moves, in which competitors must move quickly to build new advantages and erode the advantages of their rivals” (D’Aveni, 1994:217). The domain of Internet business is characterised by rapid change and is considered as a high velocity/ hypercompetitive environment (Brown and Eisenhardt, 1998). Competitive advantage in such industries is therefore not achieved by staking out a defendable position. Firms achieve sustainable competitive advantage in this environment through the process of continuous “creative destruction” (Schumpeter, 1950), improvement, and out performance of competitors.

Nault and Vandenbosch (1996) find that in high-velocity environments, firms cannibalise their own current advantages in order to preempt competitor moves. The crucial point is not sustaining advantages, but consistently generating new advantages through disrupting the status quo of the industry.

364
The resource-based view of firms achieving competitive advantage is derived from firm specific efficiency. However, firms’ competencies are eroded by frequent discontinuities in a rapidly changing environment and therefore their performance trends are inherently more difficult to sustain in such markets (Hamel, 2000). Hypercompetition is driven by the rapid creation of new firm specific resources, and thus represents a dynamic application of the resource-based view of the firm, therefore creating the term “dynamic resourcefulness” (Thomas, 1996). The key capabilities needed to succeed in such an environment, however, are not only efficiency, but also flexibility and innovation. Volberda (1996) argues that firms would need to focus on the development of flexible structures to remain competitive. As one of the managers from the survey noted, “Constant innovation is the key to achieving sustainable competitive advantage”.

Innovation is, by its very nature, only short term. To be innovative, a company or brand must strive for constant leading-edge development, thereby ensuring that it remains ahead of its competition or develops new categories that it can exploit before the competition reaches parity. At this stage, the genuinely innovative company must be launching version 2.0 or moving into the next market. This is all the more apparent in fast-moving markets or in sectors where there is intense competition.

Such a fast pace of development may frequently mean that the product or service encounters problems in its implementation and therefore requires a postponement of its launch date. While this itself may not be an issue, there is a potential for consumer confusion, or even negative publicity, as the communications programme may already be underway. A recent example here is
the launch of its Internet banking arm Intelligent Finance, by the Halifax bank where advertisements had to be taken in the press to explain that there were technical problems with the service and, even more recently, Barclays Bank’s announcement of security flaws in its on-line banking (TTLC, 2000).

In a rapidly changing environment, Porter’s (1985) genetic strategies, namely cost leadership, differentiation and focus, no longer enjoy the long-term stability that they might have in more static environments (e.g. D’Aveni, 1994). The fast adaptation and quick response to heterogeneous rivals appear to be at the heart of hypercompetition. D’Aveni (1994) indicates that speed and surprise are key issues in terms of hypercompetitive business environments, where one firm’s strategic moves will result in a new move by the competition, causing another move by the first organisation, and so on. One comment from the survey regarding sustainability of competitive advantage is “depending on the speed of reaction in the competition”. To illustrate the time factor, Treacy and Wiersema (1995) maintain that customers are looking for new enhancements to a product or service “each year” and therefore the key areas for the enhancement of products and services are through product innovation, customer intimacy, or operational excellence.

In short, being constantly ‘flexible’ and ‘innovative’ in order to react to the hypercompetitive environment rapidly is crucial to maintaining sustainable competitive advantage.
6.5.2 Barriers to Achieving Competitive Advantage

This section looks at the various barriers to achieving competitive advantage in Internet banking.

Encouragingly there was unanimity between the literature and the responses of the managers in the discussion of the barriers to achieving competitive advantage using the Internet. These were discussed in detail in Chapter 2 and the obstacles were revisited again at some length in the discussion of the interviews above. The top three issues causing obstacles were: "customers' acceptance and trust", "security issues", and "lack of human communication and interaction".

Customers’ acceptance and trust of the Internet was voted as the biggest barrier to achieving competitive advantage using the Internet by just over half of responding managers. Customers’ acceptance of Internet banking services has been rapid in many parts of the world, and in the leading e-banking countries the number of e-banking contracts has exceeded 50 per cent (Pikkarainen et al., 2004). Also perceived 'usefulness' and 'information' on Internet banking on the Web site were the main factors influencing customers’ acceptance of Internet banking (Pikkarainen et al., 2004).

The second most important barrier in the survey was 'security issues' of the Internet, which just fewer than half the respondents considered to be the crucial impediment to success. ‘Security issues’ are also the main concern for customers when banking online (e.g. White and Nteli, 2004). The 2005 RSA study also asked about general consumer perceptions of online security threats. 82.7 per cent of all respondents felt threatened or extremely threatened by identity theft, and 83.2 per cent felt threatened or extremely threatened by online fraud (RSA, 2005). Retail
banks must look at three types of security (Walsh, 1999): communications security; systems security - from the applications /authorisation server; and information security. From a user’s perspective, security must accomplish privacy, integrity authentication, access control, and non-repudiation. Many customers still feel particularly vulnerable when exposing their financial information online and therefore are still inclined to perceive the “bank branch” as providing more reliability and trustworthiness (Tee, 2000).

Costumers fear about security, which, despite the media coverage and the technical and verbal reassurances provided by the banks, still preys heavily on their minds (White and Nteli, 2004).

With nearly 50 per cent of survey respondents indicating that they would be more or much more likely to switch to a competitive service provider if that provider offered a strong authentication option and their current provider did not, and with more than two-thirds willing to migrate more of their transactions online if offered a hardware authenticator, consumers are laying down a stark business challenge for organisations that don’t invest in appropriate identity protection for their customers. (RSA, 2005)

The findings provide a telling counterpoint to the last RSA Security study that showed that security concerns were perpetuating consumer reluctance to conduct personal business online. In that survey, nearly one-fourth of respondents were reducing their online shopping and one-fifth refused to work with their financial institutions over the Internet, because of security fears. Although these fears persist, this latest survey suggests that banks and other online service providers still have an open window of opportunity to build more online trust with consumers by providing strong authentication services that ‘harden’ traditional – and weak – password-based protection.
“Just when consumers were beginning to understand the required elements of secure electronic commerce – such as lock icons on their browsers – they have been plunged into the realisation that attackers are working hard to extract and exploit personal information,” said Trent Henry, Senior Analyst, Burton Group. “Thus, simple measures are no longer enough to assuage their fears. As a result, enterprises are looking for ways to improve the technologies and processes used by customers in the online realm, both to rebuild trust and to reduce the likelihood of identity theft and related problems.” (RSA, 2005)

According to security vendor, Symantec, 48 per cent of financial services companies admitted experiencing a cyber attack in 2003 (Elkins, 2003). With the advent of Internet banking, the retail banks have opened their doors 24 hours a day, 7 days a week, which generates a significant potential operational risk. This has increased the requirement for a high level of security management. Security policies as well as network security protocols are key elements in attempting to protect the bank from a security attack. However, understandably retail banks are reticent about going public regarding the attacks they have had, for fear of the damage that could be done to their brand images and reputations, which would potentially harm their current and future customer’s acceptance and trust of the Internet delivery channel.

Hence it is vital for retail banking managers to work efficiently with IT providers to offer an adequate electronic security infrastructure and update, state-of-art technologies on the Internet to avoid possible future cyber attacks. Services that offer high security from an infrastructure standpoint are found throughout the e-commerce network and computing infrastructure. Retail banks should carry out, as a matter of corporate security policy, work on how to recognise likely high priority targets. These would be likely to include all systems that are open to the
public network, such as routers, firewalls, and Web servers, modems, banks’ Web sites, and internal unsecured systems such as desktops (Gupta et al., 2004). One of the difficulties with the whole area of Internet security is the constant change in the nature of security attacks. Retail banks should regularly revise and update their policies on auditing, risk assessment, standards, and key management. Vulnerability assessment and identification of likely targets and the recognition of the systems, which are most vulnerable to attack, are vital in the Internet banking arena. Accurate recognition of vulnerable and attractive systems will contribute to prioritisation when addressing problem areas. By having positive experiences banking online, customers are likely to be assured of Internet banking security with time.

Almost as many respondents put “lack of human communication and interaction” on the top-three barrier list. Mentioned by a quarter of respondents, “barriers to entry” was another key obstacle to achieving competitive advantage using the Internet. The human interaction within traditional banking is essential for addressing customer problems, inquiries and building long-term relationships. Black et al. (2002) claim that complexity and higher perceived risk lead to a high involvement decision process. This requires that the Internet bank must provide personal channels or channels with a high degree of face-to-face involvement. Watkins (2004) maintains that customers’ unwillingness to give up face-to-face banking, the unpopularity of branch closures and a lack of integration between different channels meant that the promise of cost-savings and the capture of new customers never truly materialised. Banks have learned to use new technology to support the ‘new’ branch. Banks are acknowledging that the closure of a large
number of high-street branches was misguided and many have begun re-opening branches and increasing the number of frontline staff. Certain products and services involve complex transactions, for instance, applying for a home mortgage, and for these customers prefer face-to-face communication. In light of this condition, former branchless Internet only banks are now building branches (Gopalakrishnan et al., 2003), e.g. E*Trade, the US Internet only bank, is opening mini-branches in Target Stores.

Compared to the cost of setting up a traditional bricks and mortar bank (estimated at between a minimum of $25 and $30 million), Internet banking competitors can now set up an Internet bank for as little as $6 million in the USA (Nathan, 1999). Unsurprisingly this lower cost of entry, combined with the synergies between banking products and other consumer items and the benefits of strong consumer brands have led to an increase in non-bank competition. Examples would be: - Tesco, Sainsbury’s, Marks & Spencer, Safeway and John Lewis. And International competitors like ING direct and Citibank.

The revolution generated by the introduction of the Internet has lowered entry costs, thereby increasing competition among the banks, and competition between banks and other financial institutions.

6.7 CONCLUSION

In conclusion, the three factors, ‘differentiation’, ‘cost leadership’ and ‘product uniqueness’, which achieve competitive advantage though the Internet, resemble Porter’s (1985) framework of generic strategies for achieving competitive
advantage in non-Internet businesses, which are cost leadership, differentiation and focus. Focus and product uniqueness are not the same as Porter. He would include product uniqueness as part of his differentiation strategy. However, differentiation strategies seem to be more promising and profitable than cost advantage approaches (also see Kim et al., 2004) in the analysis. This is perhaps due to the fact that cost leadership strategies are easy to imitate and allow (especially in the Internet age) instant price comparison between competitors (Lee and Gosain, 2002), which leads to lower prices and therefore lower profits (Brynjolfsson and Smith, 2000; Smith et al., 1999). The study results also show that the third factor, ‘product uniqueness’, seems to be the only source of ‘focus’. According to Porter’s (1985) focus strategy, firms target specific groups of buyers, product lines, or geographic areas. In the context of the Internet, there has been consensus that the Internet has created a borderless global economy where firms can reach a much larger number of people than via traditional media (e.g. Evans and Wurster, 1999; Peppard, 2000; Zott et al., 2000; Anderson, 2000; Dutta and Biren, 2001). Therefore, focusing on targeting specific groups of buyers and geographic areas seems to be less valuable than focusing on product uniqueness.

Porter (1985) argued that cost leadership and differentiation are fundamentally contradictory strategies, requiring different sets of resources; therefore any firm attempting to combine them would be “stuck in the middle” and fail to enjoy superior performance. From a traditional business perspective, cost leadership and differentiation may seem incompatible. Cost leadership requires standardised products with few unique and/or distinctive features or services and therefore costs are kept to a minimum. Conversely, differentiation usually depends
on offering customers unique benefits and features, which almost always increase production and marketing costs (Hitt et al., 2001). Studies have proved there is statistical support for a single-strategy performance benefit (Dess and Davis, 1984; Calingo, 1989).

Several other studies have, however, challenged Porter's generic strategies and demonstrated that competitive strategy does not necessitate choosing between cost leadership and differentiation (Booth and Philip, 1998; Glazer, 1991). Some research has demonstrated that it is practical to pursue a strategy that includes both cost and differentiation competitive methods (Miller and Friesen, 1986; Kim and Lim, 1988; Robinson and Pearce, 1988; Bush and Sinclair, 1992; Miller and Dess, 1993; Wagner and Digman, 1997). For example, Hill (1988) argued that sustainable competitive advantage rests on the successful combination of these two strategies. Murray (1988) criticised Porter's typology, and noted that the development of any successful business strategy must reflect the larger competitive environment. He argued that since industry environments do not specifically prescribe the need for cost leadership or differentiation, there is little reason to conclude that only one strategy should be employed in response to any particular environment.

Although any incompatibility between cost leadership and differentiation may hold true in more stable environments, rapidly changing competitive environments call for more flexibility and the ability to combine elements of more than one generic strategy (Kim and McIntosh, 1999). New information technologies can reduce the trade-off between a wide range of variants (flexibility) and production costs (productivity) (Wigand et al., 1998). Mass customisation and
the development of network organisations both demand and make possible the flexible combination of multiple strategies (Anderson, 1997; Preiss et al., 1996).

Evans and Wurster (1999) concluded that the Internet disassembles traditional value chains, introducing new competitive imperatives and requiring new strategies. The authors show how the convergence of supply chain and e-commerce can catalyse the forging of advanced-level networks that will dominate future markets.

In their book on the e-supply chain, Poirier and Bauer, predict an increasing Internet role in distribution, “In the first wave, some part of virtually every business will transfer to a cyber channel of distribution. In the second wave, networks targeting specific consumers will create new alliances across the full spectrum of supply. In the third wave, advanced networks will form global “value chain constellations” that will become the norm for most future industries” (Poirier and Bauer, 2001).

One doesn’t have to agree completely with these sweeping observations to accept that the Internet has reduced trade-offs between information richness and information reach, or that the Internet’s universality and its ability to reduce information asymmetries and transaction costs have created opportunities to “rewrite the rules” of business strategy (Afuha and Tucci, 2001).

Rather the simultaneous attainment of both strategic positions should be pursued within the context of a hybrid competitive strategy. The “integrated strategy” indicates that this strategy successfully combines cost leadership and differentiation (Hitt et al., 2001). It is distinguished from Porter’s stuck in the
middle conundrum in that (1) while stuck in the middle suggests no clear strategic focus, an integrated strategy is a desirable strategic position in the Internet environment, and therefore, (2) it should be treated as one of the three prototypes of strategy along with cost leadership and differentiation.

Hence, the researcher believes that an integrated strategy combining elements of differentiation, cost leadership and product uniqueness is not only possible but is likely to be the most successful strategy for Internet business firms to pursue.

Further, to achieve sustainable competitive advantage in a hypercompetitive environment, the above-mentioned strategies may no longer enjoy long-term stability (e.g. D'Aveni, 1994). As discussed in section 6.2, being constantly ‘flexible' and ‘innovative' to react to the hypercompetitive environment rapidly, is key to maintaining sustainable competitive advantage.

Having discussed the main conclusions in this chapter, the contents of the chapter will be outlined and summarised. The chapter closed with a discussion of the ‘fit' between the results from factor analysis and Porter's generic strategies framework. The three factors from the study resemble Porter's (1985) framework of generic strategies. However, the results challenged Porter's view on contradictory strategies in traditional business settings. It radically suggested that an integrated strategy is not only possible but is likely to be the most successful strategy in the Internet arena.

This chapter summarised the findings from the open questions, the hypotheses, the factor analysis and other results from the survey. The first section
contained the discussion of the open questionnaire. It opened with a consideration of the perceptions of managers about what is competitive advantage and how it arises. The answers to the open question in the survey about the nature of competitive advantage in terms of UK retail banking sector can be grouped into six categories, which were then reflected on in turn. Following that there was a comparison of the manager's response to the open question with the academic view of the same issues.

In the second section, the factors, which arise from the factor analysis, were outlined. They are very important in relation to producing competitive advantage in the Internet arena in UK retail banking sector. They are differentiation, cost leadership and product uniqueness. This section discussed the factor analysis in these terms.

In the third section, the results of the survey in relation to the hypotheses were discussed. A similar pattern to that established for the interviews was used to discuss the findings. Comparisons with the results of the analysis of the hypothesis were made with both the interviews and literature. In order to contextualise some of the concepts raised by the hypotheses, please see section 2.4 for the background to the concepts.

In the fourth section, the other survey results were explored. It considered the sustainability of and barriers to competitive advantage with a particular emphasis on the competitive actions of rival retail banks and the importance of timeliness and constantly being flexible and innovative in a hypercompetitive environment. Sustainability is a key part of the interviews and had a survey
section devoted to it. Then the barriers to achieving competitive advantage were discussed.

Finally the chapter ended with a summary and concluding remark and in particular a contention that companies should not simply concentrate on cost leadership or differentiation and exclude other added-value strategies.
Chapter 7: CONCLUSION

This chapter starts with an explanation of the purpose of the research, which emphasises that the research is designed to build an understanding of issues around competitive advantage and Internet banking. The first section also includes a summary of the content of the preceding six chapters. The next section outlines both theoretical and practical contributions and findings that the research has made. Then the limitations of the research are discussed. Some potential future research directions are then suggested.

7.1 RESEARCH AIMS AND SUMMARY OF THE THESIS

The purpose of this research was to gain an understanding of the issues pertaining to competitive advantage and Internet banking in the UK. The researcher has addressed the issues of

1) what is the notion of “competitive advantage” in the retail banking sector

2) what are the factors that affect a retail bank’s ability to achieve competitive advantage from using the Internet, and

3) why some retail bank managers are more convinced of the benefits of the Internet as a generator of competitive advantage than others.

Also addressed were how does this relate to characteristics of bank; the size and type of bank, its Internet strategies, for example. The level of Internet usage and the timing of Internet entry.
There were seven chapters in the dissertation. The following section provides an overview of the research and describes each chapter in some detail.

The first chapter was a discussion of the essence of the study and why the researcher felt motivated to undertake this research. The researcher introduced the idea that the dissertation was about the relationship between competitive advantage and the Internet in the UK retail banking sector.

There followed in the second chapter an introduction to the theoretical basis for this study of the Internet and competitive advantage in the UK retail banking sector. A literature review in each area was presented to illuminate, describe and connect the topics. Research gaps were identified to enable further refinements to the design of the study. Based on a review of the pertinent literature and proposed research framework, specific hypotheses were then developed.

Chapter three discussed the research methodology in considerable detail. The epistemology and research methodology were discussed and justified. The research follows a positivism approach. The rationale of the interview method was explained and the unit of analysis and the interviewee selection process was outlined and justified. Then the procedures used in the data collection were introduced and described. For the quantitative study stage, the selection of the sample, unit of analysis and respondents were introduced. The sample unit followed the literature and the fact that organisations are made up of individuals and that it is typical that, regardless of the unit of analysis, the units for data collection in survey research are usually individuals. The managers surveyed were the decision makers not the bank itself, or the E-commerce manager, and because
each separate manager had a different strategy and opinion, the researcher felt justified in assuming that they provided added value in their responses beyond that of a single organisation.

In addition, the responses were primarily from senior managers (70 per cent of respondents, see Table 3.10). It is likely that given their seniority that the majority of managers who participated in the survey were decision makers and therefore able to make judgments about Internet strategy for their retail banks and/or building societies.

Further, the questionnaire development process was described and the data collection process was discussed. Finally, the data analysis strategy was briefly outlined and the contributions and limitations of the methodology used were presented.

Chapter four contained the research results and findings from the six interviews. A description of each interview was provided, followed by a discussion of the findings from the interviews. The results of the interviews were presented in a comparable way.

Chapter five presented the findings and results from the survey. Descriptive analysis was presented, followed by a comprehensive discussion of the data analysis techniques utilised to develop valid and reliable instruments. Factor analysis was used to identify issues, which affect retail banks ability to achieve competitive advantage by using the Internet and then bivariate regressions were utilised to formally test the generated hypotheses. Mediator variables were introduced and results were presented.
Chapter six provided a detailed discussion of, and highlighted practical implications of, the findings. Respondents’ perceptions of competitive advantage were firstly analysed, and the sustainability of competitive advantage was discussed with a particular emphasis on the hyper-competitive view. The barriers to achieving competitive advantage using the Internet were outlined and the factors that affect retail banks ability to achieve competitive advantage were discussed in some detail. Finally the fit of the two major existing views of competitive advantage into the Internet arena were examined.

7.2 THEORETICAL CONTRIBUTIONS

There have been various theoretical frameworks and perspectives attempting to explain competitive advantage, however the definition of competitive advantage is still being debated (Rumelt, 2003). Despite its general acceptance by the literature, the concept of competitive advantage remains relatively undefined and also at times appears to be a tautology in the real world. The research attempted to explore in detail the concept of competitive advantage as it pertains to the UK retail banking sector and in particular the use of the Internet in retail banking. It therefore was designed to assist researchers and practitioners in understanding and further investigating competitive advantage in the UK retail banking sector. The answers to the open question in the survey about the nature of competitive advantage in terms of the UK retail banking sector can be grouped into six categories: - cost and differentiation focus, customer focus, competition focus,
unique characteristics/background of a firm, a general definition of competition and a combination of all the aforementioned concepts.

Rich data in the interviews helped to interpret the statistical findings and provides insights into the role of managerial perceptions of competitive advantage and what it comprises. The interviews identified five other ways to build competitive advantage. First cost reduction was established as a key area enabling retail banks to offer products at competitive prices. Additionally, there was a good recognised and trusted brand. Thirdly, superior customer service quality - including multi-channel service delivery was considered vital. Competitive advantage also arose from a good customer base of high socio-demographic customers. Lastly there was the right product range (for the right customers), which can be attained by accurate customer segmentation.

One major contribution was the identification of factors, which might explain the construct of "competitive advantage" which is frequently discussed but rarely operationalised in recent literature and little studied in the context of new phenomena such as the Internet. In this context the study examined a theoretical model developed from regression analyses. From the Factor analysis the most crucial factors required to achieve competitive advantage were identified to be differentiation, cost reduction and product uniqueness. These explained a total of 63.5 per cent of the variance. They resemble the generic strategies of Porter and do not slip into the aforementioned "stuck-in-the-middle" situation.

To be precise, the first two might be expected from Porter's generic strategies, but this thesis identifies the third factor of "product uniqueness" which
differs from the first factor, differentiation. This is because it focuses on the range and cross selling or portfolio aspects whereas the first is strongly "brand and image related". Product uniqueness is related to the more micro level marketing issues that might come under "marketing mix", whereas differentiation is more strategic in level and incorporates the firm-specific advantages of the corporation. Product uniqueness refers to the ability of a bank to add features to create the impression of uniqueness by the consumer. These may be added services, better delivery, product structure related, etc. The Internet enables some extra product dimensions, which can facilitate these features.

A theoretical model was tested by regression analysis. The result from the regression supported the existence of mediation and the importance of Internet strategies. These strategies had a good fit with the resource-based view of competitive advantage which has been discussed at length above and indicates resource and core competences are crucial to permitting decisions to be made about which Internet strategies to employ to achieve competitive advantage.

From a market-based viewpoint, the study identified the key success factors which led to the achievement of competitive advantage by using the Internet. These are along the lines of Porter's generic strategies and are external in nature. From the resource-based viewpoint, the dissertation discussed Internet strategies employed by retail banks: timing of Internet entry, level and Internet usage, in other words, internal factors. The study therefore found that the market-based view and the resource based perspective of competitive advantage may be seen as complementary as they are concerned with different domains (i.e. external and internal respectively).
However, the hypercompetitive point of view might be a more effective way of achieving sustainable competitive advantage in the rapidly changing Internet business. Firms can only achieve sustainable competitive advantage by timeliness and by being constantly flexible and innovative in the hypercompetitive environment. Hence, a multi-perspective and dynamic competitive strategy is a more appropriate way to analyse competitive advantage achieved by the Internet in the UK retail banking sector.

A model of Internet and competitive advantage in UK retail banking arena was developed to examine the relationship between the characteristics of the banks, their Internet strategies, and the perceived competitive advantage that resulted. However it was apparent that managers of banks were influenced in their perception of these factors by the different sizes of their banks.

Detailed testing of the components argued by literature to comprise the competitive advantages offered to banks by the Internet produced the following "surprising findings". The research concluded that the size and type of retail bank has direct impact on Internet strategy. Managers' perceptions of the competitive advantage provided by the Internet is affected, both by the characteristics of their firms, and also by the Internet strategies that their banks employed. Internet strategies are confirmed to be mediation variables and have a good fit with the resource based view. This indicates that resource and core competences are crucial to the decision about which Internet strategies to employ to achieve maximum competitive advantage.
However when considering the issue of sustainability, a hypercompetitive view is more appropriate. It suggests that constantly being flexible, innovative and quickly responding to the changing environment are the foundations required for firms to achieve sustainable competitive advantage. This arose directly from the findings of the survey that the same managers who believed that the Internet has provided retail banks and building societies with competitive advantage had markedly different views when it comes to ‘sustainability’. Just fewer than 20 per cent did not believe that the Internet has provided sustainable competitive advantage for their firms at all. Over 25 per cent of respondents believed these advantages will last less than two years. Fewer than 20 per cent took a more optimistic view that the competitive advantage will last for more than five years.

There were many comments about the influence of competitors and many managers’ views fitted into the “hypercompetition” view of competitive advantage. The domain of Internet business is characterised by rapid change and is considered as a high velocity/ hypercompetitive environment, in which firms cannibalise their current advantages in order to preempt competitor moves (Nault and Vandenbosch, 1996; Brown and Eisenhardt, 1998). The crucial point is not sustaining advantages, but consistently generating new advantages through disrupting the status quo of the industry.

Innovation is, by its very nature, only short term. To be innovative, a company or brand must strive for constant leading-edge development, thereby ensuring that it remains ahead of its competition or develops new categories that it can exploit before the competition reaches parity. At this stage, the genuinely innovative company must be launching version 2.0 or moving into the next market.
This is all the more apparent in fast-moving markets or in sectors where there is intense competition.

In such a rapidly changing environment, Porter’s (1985) generic strategies, namely cost leadership, differentiation and focus, no longer enjoy the long-term stability that they might have in more static environments (e.g. D’Aveni, 1994). The fast adaptation and quick response to heterogeneous rivals appear to be at the heart of hypercompetition. D’Aveni (1994) indicated that speed and surprise are key issues in terms of hypercompetitive business environments, where one firm’s strategic moves will result in a new move by the competition, causing another move by the first organisation, and so on. One comment from the survey regarding sustainability of competitive advantage was “depending on the speed of reaction in the competition”. To illustrate the time factor, Treacy and Wiersema (1995) maintain that customers are looking for new enhancements to a product or service “each year” and therefore the key areas for the enhancement of products and services are through product innovation, customer intimacy, or operational excellence.

In short, being constantly ‘flexible’ and ‘innovative’ in order to react to the hypercompetitive environment rapidly is crucial to maintaining sustainable competitive advantage.

The survey results show that customer’s acceptance and trust, and security of the Internet have been claimed as impediments preventing firms from gaining competitive advantage. This echoed the results from the literature (see 2.2.6).
Regarding Internet strategies, level of Internet usage and the timing of entry, a majority of managers considered that retail banks whose Internet usages were at sophisticated transaction level have gained more competitive advantage, however, there was no consensus on whether timing of entry has affected the ability to achieve competitive advantage using the Internet.

Further, much existing research primarily considers the customer. There is therefore a lack of studies providing a managerial perspective of Internet banking which this dissertation attempted to fill.

7.3 PRACTICAL CONTRIBUTIONS

In addition to theoretical contributions, this study also offers practical contributions to retail banking professionals.

Firstly, the definition of 'competitive advantage' in the retail banking sector can be seen to have many practical implications. For managers, the results of the research recognised that competitive advantage depends on the coordinated implementation of a set of competitive strategies in the Internet arena. This implies that retail banks should strategically focus on optimising cost leadership, differentiating themselves from others and providing unique products/services.

Before developing an Internet presence, small retail banks and building societies should consider how the Internet fits with their short and long-term strategies. While most small banks can probably benefit from an Internet presence, it may not be for everyone. Their greater focus, both in a branding sense and
practical implementation on the branch and personal service may reduce the relative value of their Internet offering.

However the key is to implement the Internet strategy appropriately. This means getting the cost, level of sophistication, security policy and procedures, marketing strategy correct, and integrated with the rest of the bank’s strategy. The rationale behind this is in line with the resource-based view of competitive advantage (see 2.2.3).

The next section details a number of recommendations for retail banks to achieve better competitive advantage using the Internet.

1) To maximise the benefits of the cost efficiencies which can arise through the use of the Internet, retail banks need to make an effort to serve the largest proportion of their customers through the Internet route. This may be either virtually, solely using the Internet or with the Internet supporting other mediums, i.e. “bricks and mortar”, telephone banking (both fixed line and mobile) etc. This follows from the literature review that the Internet is lower cost than other service delivery channels (Pant and Hsu, 1995; Peppard, 2000; Mols, 2000; De Young, 2001) and the cost table 2.1 in 2.3.2 which illustrates the lower cost of Internet transactions.

2) Increase the availability of online product offerings and services and leverage cost savings and changes in customer base, in order to introduce new products and services, which are not available off-line. The aforementioned price advantages should allow online products with value or service benefits not available off-line.
3) While retail banks may find that Internet banking can increase efficiency and improve customer service and customer loyalty, they will need to focus more on their core competencies and seek that retail banking niche consistent with their overall organisational strategy to remain competitive. This requires the same marketing and strategic implementation as for off-line banking so should be attainable without requiring significant extra resource.

4) Delivery of the right products to the right customers. Utilising customer relationship management to collect customer feedback, accumulating individual customer preferences and enabling online log-in tracking and data mining technologies, retail banks will be able to tailor make their products for individual customers. This is a potential major benefit of the data collection benefits of Internet banking.

5) By enabling better customer segmentation and reducing the cost of delivering products and services, there is an exciting opportunity to radically improve cross selling ability. This offers potential revenue benefits to the bank and greater customer satisfaction.

To best eliminate major barriers to achieving competitive advantage through the Internet identified in the study, i.e. “customers acceptance and trust”, “security issues”, and “lack of human communication and interaction”, a number of recommendations are provided below for retail banks:

1) To explain the real benefits of banking online for customers. To provide knowledge to customers about banks’ intentions to protect security in order to generate a higher level of trust from their customers. To use real examples
from existing online customers and/or utilise virtual communities. e.g. Use word-of-mouth referrals – These are positive feedback from people with whom you may have strong ties that have used the services before.

2) To improve the reliability and security of transactions, based on further developments in technology. To demonstrate bank’s concern for security and reliability with concrete solutions to improve online security, e.g. insurances and government regulations. This was discussed in section 2.3.1 where security was cited as the top impediments to retail e-commerce (CommerceNet, 2000) and one of the main obstacles to the adoption of electronic banking (Zeithaml et al., 2000; Aladwani, 2001).

3) To increase the quality and quantity of interactions with customers by improving the accessibility, content, speed, customisation and other hygiene factors. These was discussed in section 2.4.3, where the results of a survey by Virtual Surveys (2004) concluded that higher levels of customer satisfaction seem to be primarily due to online banks improving the speed and usability of their banking sites. Their survey suggested that improvements in the range of products and services offered online had been made and in particular, customers are rating online money transfer, direct debit and standing order functions more highly than at the same period in the year before. Both points 2 and 3 could be pursued if Internet banks integrated Internet services with other channels so that customers could easily interact with ‘real humans’ who are well trained and therefore handle problems in a friendly and efficient way.
Lastly, one other different recommendation is to constantly monitor changes in the market (including changes to customers tastes, competitor behaviour, new technology, etc.) and redesign and update strategies. This fits with the better results expected from market-driven organisations, which are superior in their market sensing and customer-linking capabilities (Day, 1994). This is discussed in 2.2.3 above.

7.4 LIMITATIONS OF THE RESEARCH APPROACH

As discussed in chapter three, the most robust methodological approach was adopted within the time and resources available. Nonetheless, it is crucial to consider the limitations of the design used.

The major limitation of the qualitative study was the limited number of interviews involved. The six interviews that were chosen in the pilot study were selected based on proximity and bank managers’ willingness to participate rather than being randomly chosen. Consequently, there is no assurance these six retail banks and building societies are representative of the other banks. However the six interviews did cover the main types of banking institution with representatives from an Internet only bank, a building society, a major clearing bank and a mid sized retail bank.

In terms of the questionnaire, it can be argued that it might have been better to send an invitation by email first.

It could also be argued that the respondents were biased. As mentioned earlier, the quantitative survey targeted fellows of the FCIB. In most cases, these
managers completed the questionnaire themselves and the data were used for the quantitative study. However, some fellows passed on the questionnaire to a manager with the relevant knowledge and expertise within the bank. In both cases, it is always possible that the respondents might have selected the responses that they believed were appropriate to answer the survey. Therefore, multiple respondent sources might not have been achieved in the study; the extent to which the responses accurately reflected the actual situation is therefore difficult to interpret. Further studies might utilise multiple respondents to overcome this limitation.

One of the limitations that apply to both the qualitative and quantitative studies is related to the generalisability of the findings in the research. The sample was restricted to retail banking and building societies which may limit the generalisability of the findings to other industry settings. The study was geographically limited as it was conducted in only in the UK. Also managers who took part in the survey were not necessarily representative of either all levels or type of retail bank manager. Another limitation of the quantitative part of the study was the number of questionnaire respondents.

7.5 FUTURE RESEARCH DIRECTIONS

In addition to the research directions discussed earlier in this chapter, in future the research could be improved and extended by updating the data that was
obtained with a larger sample. In depth case studies could also be used to cross check results from the survey.

Further research could also be directed towards the comparison of different service delivery channels’ effect on retail banks achievement of competitive advantage. For example, a comparison of ATM, telephone and Internet banking. This would allow for different managers’ perceptions of the achievement of competitive advantage.

There was an inherent gap between the surveyed managers and the retail bank’s customers. This could be bridged by surveying customers, widening the managers questioned to include more customer facing managers or by changing the questions to be more customer orientated.

The concept of competitive advantage can be captured from managers working in other sectors in different countries, other than in UK retail banks. It would be beneficial to see if the theoretical framework still fits. There is a need for similar studies to be undertaken in other countries, which are perceived to be either more or less advanced in the area of Internet banking than the UK.

There is also a lack of research on different customer groups with all the current research very binary, for example, young and old or the very wealthy AB1s. Further research can be carried out to compare the preferences etc of AB1s versus Cs or Ds.

Although the results of the analysis of the competitive advantage gained through the Internet in UK retail banking sector might be similar to those obtained from other industries, certain factors may be unique to UK retail banking. This
could be resolved with a sister study in another area affected by the Internet. This
could be in financial services, in, for instance, the insurance sector, or in an area
like retail Financial Markets Group (FMG). Other service sectors or indeed any
sector could be added to this list although the likelihood of significant unique sector
factors increases.

7.6 SUMMARY

The chapter began with an explanation of the purpose of the research, which
is to build an understanding of issues around competitive advantage and Internet
banking. Next the chapter contained a summary of the six preceding chapters.
Then the contributions and findings of the research were listed. These included
theoretical, methodological and practical findings. There followed a discussion of
the limitations of the research and some potential future research directions.
### APPENDIX I: INTERNET BANKING SURVEY LEAGUE TABLE

Virtual Surveys' Online Banking Survey (V-OBS) League Table for Q4/2003.

<table>
<thead>
<tr>
<th>Bank</th>
<th>% Bank With</th>
<th>Overall Opinion Mean Score</th>
<th>Overall Opinion Difference vs '02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Online Bank</td>
<td>-</td>
<td>3.9</td>
<td>+0.3</td>
</tr>
<tr>
<td>Smile</td>
<td>7%</td>
<td>4.4</td>
<td>+0.1</td>
</tr>
<tr>
<td>First Direct</td>
<td>13%</td>
<td>4.4</td>
<td>+0.3</td>
</tr>
<tr>
<td>Nationwide</td>
<td>8%</td>
<td>4.1</td>
<td>+0.1</td>
</tr>
<tr>
<td>RBS</td>
<td>5%</td>
<td>4.0</td>
<td>+0.3</td>
</tr>
<tr>
<td>HSBC</td>
<td>16%</td>
<td>3.9</td>
<td>+0.1</td>
</tr>
<tr>
<td>IF</td>
<td>3%</td>
<td>3.8</td>
<td>+0.2</td>
</tr>
<tr>
<td>Lloyds TSB</td>
<td>16%</td>
<td>3.8</td>
<td>+0.3</td>
</tr>
<tr>
<td>Egg</td>
<td>9%</td>
<td>3.8</td>
<td>+0.4</td>
</tr>
<tr>
<td>Cahoot</td>
<td>5%</td>
<td>3.8</td>
<td>+0.2</td>
</tr>
<tr>
<td>Barclays</td>
<td>15%</td>
<td>3.7</td>
<td>+0.2</td>
</tr>
<tr>
<td>Halifax</td>
<td>10%</td>
<td>3.6</td>
<td>-</td>
</tr>
<tr>
<td>Abbey National</td>
<td>6%</td>
<td>3.6</td>
<td>+0.3</td>
</tr>
<tr>
<td>NatWest</td>
<td>10%</td>
<td>3.6</td>
<td>+0.5</td>
</tr>
<tr>
<td>Alliance &amp; Leicester</td>
<td>3%</td>
<td>3.6</td>
<td>+0.4</td>
</tr>
<tr>
<td>Woolwich</td>
<td>2%</td>
<td>3.3</td>
<td>-</td>
</tr>
</tbody>
</table>
APPENDIX 2: LETTER REQUESTING INTERVIEW

Dear xxx,

I am researching a doctorate at Warwick in the area of the competitive advantage of the Internet in Banking. Would it be possible to ask you to spare me 20 to 30 minutes to answer some questions on your views about the use of the Internet in Banking? This will enable me to gauge initial opinions about the competitiveness of the Internet as a distribution medium for banking products.

I will share my results with you and acknowledge your assistance when I publish my research. Obviously I am happy to travel to your office at a convenient time for you.

Please contact me via email.

Thank you,

Qing Porter
Dear xxx,

Thank you very much for agreeing to see me. I am looking forward to our meeting xxx and enclose the following background information.

This research project examines the provision of Internet usage in UK retail banking sector. The goals of the study are threefold:

1) to look at the rationale behind managers of retail banks investing in the Internet
2) to observe whether retail banks do gain competitive advantage from heavy investment in online services, and
3) to identify the key factors for success in utilising the Internet in retail banking.

The questions to be discussed in the interview:

1) What factors do you think would offer the retail banking sector competitive advantage? (e.g. reduced cost.)
2) Do you think the Internet has provided competitive advantage for retail banks? If so what are the factors that have provided competitive advantage/disadvantage?
3) Do you think the characteristics of retail banks affect their ability to gain more competitive advantage by using the Internet? (e.g. big banks vs. small banks, Internet only vs. multi-channel banks, banks that offer complex product/services vs. banks offering less complex product/services)

Regards,

Amie (Qing Porter)
APPENDIX 4: SURVEY QUESTIONNAIRE

Internet and Competitive Advantage Questionnaire
Confidential

Part 1: About your organisation (UK division or subsidiary only)

1. Which of the following best describes your firm? (Please tick ONE box only):
   - High Street retail bank ("bricks and mortar")
   - Building society
   - Internet only bank
   - Other financial services provider
   - Non financial services provider

2. Which of the following best describes your firm's total assets? (Please tick ONE box only):
   - In excess of £6 billion (> $10 billion)
   - Over £600 million but under £6 billion ($1b–$10b)
   - Below £600 million (< $1 billion)

3. Which of the following best describes the number of employees in your firm? (Please tick ONE box only):
   - Over 1000
   - 501-1000
   - 250-500
   - Under 250

4. Which of the following best describes your firm's Internet usage strategy? (Please tick ONE box only):
   - Sophisticated electronic fund transaction level
   - Basic online account info and interaction level
   - Advertisement and communication level
   - Not yet using the Internet

5. Which of the following best describes your firm's Internet entry strategy? (Please tick ONE box only):
   - First mover (1 and 2 in the market)
   - Early follower (entry within 2 yrs after 1st mover)
   - Late entry (all other players in the market)
   - Not yet using the Internet

Part 2: Competitive advantage in retail banking sector

6. How do you define the concept of 'competitive advantage'?

7. Which of the following do you think is the best description of 'competitive advantage'? (Please tick ONE box only):
   - Business strength/ unique capability
   - Doing better than competitors
   - Unique value offering that customers are willing to pay a premium for

398
8. What factors do you think provide competitive advantage in the retail-banking sector?

(Tick as MANY boxes as apply):

- Lower operational costs
- Comprehensive product range
- Strong brand and image
- Loyal customer base
- Low cost of wholesale funds
- Good value (e.g. high interest rate on savings)
- Superior customer service
- High socio-demographic profile customer base
- Large customer base
- Innovative strategy
- Others, please specify

Please indicate the extent to which you personally disagree/agree with each of the following statements by choosing ONE of the boxes from strongly disagree "1" to strongly agree "5".

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. The Internet reduces operating costs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. The Internet increases the cost of marketing, training, advertisements, maintenance etc. cost.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. The Internet has NOT improved service quality.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. The Internet's low cost allows banks/building societies to provide competitive pricing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. The Internet facilitates cross-selling of products and services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. Aggregate/comparative web sites assist product sales. e.g. moneysupermarket.co.uk</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. The Internet has NOT provided customers convenience.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. The Internet has enhanced customer interactions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. The Internet has better fulfilled customer needs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18. The Internet has attracted new customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. The Internet has helped to attract and retain high socio-demographic profile customers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. The Internet has enhanced customer service quality.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
21. The Internet has improved my company’s image.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. Retail banks that offer a more comprehensive product range gain a greater advantage from the Internet.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are many definitions of ‘competitive advantage’ in the literature. One of the definitions of competitive advantage is: -

A competitive advantage is a set of factors or capabilities that permits one participant in a business sector to offer products and/or services more effectively, from the customer’s viewpoint, than can its competitors and thereby outperform their rivals.

Please use the above definition as a guideline for the following questions.

23. Do you think the Internet has provided competitive advantage for retail banks?  
(Please tick ONE box only):  

☐ Yes ☐ No

24. How long do you think the competitive advantage provided by the Internet will last? (in the case of your organisation)  
(Please tick ONE box only):  

☐ Under 1 year ☐ 1-2 years  
☐ 2-5 years ☐ 5+ years  
☐ No advantage  
☐ Depends, please specify on what factor(s)

25. What do you consider to be the main barriers to achieving competitive advantage using the Internet?  
(Please tick ONE box only):  

☐ Expensive to maintain ☐ Requires advertisements to promote  
☐ Unreliable ☐ Low barrier to entry  
☐ Security issues ☐ Customers’ acceptance and trust  
☐ Lack of human communication and interaction  
☐ Others, please specify

26. Which of the following sub-groups gain the most competitive advantage over their competitors when setting up their Internet operation?  
(Please tick ONLY one box only):  

☐ First mover (1 and 2 in the market)  
☐ Early follower (entry within 2yrs after 1st mover)  
☐ Late entry (all other players in the market)  
☐ Timing does not matter
27. Which of the following levels of Internet service gain the most competitive advantage?

(Please tick ONE box only):

- [ ] Sophisticated electronic fund transaction level
- [ ] Basic online account info and interaction level
- [ ] Advertisement and communication level
- [ ] Not yet using the Internet

Please indicate the extent to which you personally disagree/agree with each of the following statements by choosing ONE of the boxes from strongly disagree "1" to strongly agree "5".

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>28. Big banks gain more competitive advantage.</td>
<td>1 [ ]</td>
<td>2 [ ]</td>
<td>3 [ ]</td>
</tr>
<tr>
<td>29. Small banks gain more competitive advantage.</td>
<td>1 [ ]</td>
<td>2 [ ]</td>
<td>3 [ ]</td>
</tr>
<tr>
<td>30. Building societies gain more competitive advantage.</td>
<td>1 [ ]</td>
<td>2 [ ]</td>
<td>3 [ ]</td>
</tr>
<tr>
<td>31. &quot;Bricks and mortar&quot; retail banks gain more competitive advantage.</td>
<td>1 [ ]</td>
<td>2 [ ]</td>
<td>3 [ ]</td>
</tr>
<tr>
<td>32. Internet only banks gain more competitive advantage.</td>
<td>1 [ ]</td>
<td>2 [ ]</td>
<td>3 [ ]</td>
</tr>
</tbody>
</table>

Part 3: Personal information

33. Which of the following best describes your job nature? (Please tick ONE box only):

- [ ] Marketing, Sales and Media
- [ ] IT, banking operation
- [ ] Finance
- [ ] Customer Service
- [ ] General Banking (e.g. credit, lending, loan...)
- [ ] Human Resource
- [ ] Others, please specify

34. Which of the following best describes your position in the firm? (Please tick ONE box only):

- [ ] Senior manager (head office, regional managers)
- [ ] Middle manager (divisional, branch/unit managers)
- [ ] Junior manager (clerical, operational managers)
- [ ] Not at manager level

If you wish to be entered in the draw, please fill in Questions below.

Name ____________________________________________
Organisation ______________________________

Email or postal address ______________________________

If you wish to receive a copy of preliminary result of the study, please select “yes”:
(Only for those who provide correct contact details.)

☐ Yes  ☐ No

Please use the SAE supplied to return the completed questionnaire.
THANK YOU VERY MUCH FOR YOUR CO-OPERATION.
APPENDIX 5: ORGANISATIONS THAT ANSWERED THE SURVEY

<table>
<thead>
<tr>
<th>Number of organisation contacted</th>
<th>72</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of organisation replied</td>
<td>65</td>
</tr>
<tr>
<td>Respondent rate</td>
<td>89.04%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Organisation</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abbey National</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>ABN</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>AIB</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Alliance &amp; Leicester</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Barclays</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Bank of Ireland</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>BOS</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Bradford &amp; Bingley</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Bristol and West plc</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Britannia BS</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Buckinghamshire BS</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>cahoot</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Cambridge BS</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Cheltenham and Gloucester plc</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>chesham BS</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Cheshire BS</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>Clydesdale Bank</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Co-operative Bank</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Coventry BS</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Cumberland BS</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>Darlington BS</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Derbyshire BS</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>Dexia Bank</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Dunfermline BS</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>Egg</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>Firstdirect</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>Furness BS</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>Halifax</td>
<td>3</td>
</tr>
<tr>
<td>29</td>
<td>HSBC</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>Intellegent Finance</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>ING</td>
<td>4</td>
</tr>
<tr>
<td>32</td>
<td>Ipswich BS</td>
<td>2</td>
</tr>
<tr>
<td>33</td>
<td>Krbs BS</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>Leeds Holbeck BS</td>
<td>2</td>
</tr>
<tr>
<td>35</td>
<td>Leopold Joseph BS</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>lloyds TSB</td>
<td>9</td>
</tr>
<tr>
<td>37</td>
<td>Loughborough BS</td>
<td>1</td>
</tr>
<tr>
<td>38</td>
<td>Mansfield BS</td>
<td>1</td>
</tr>
<tr>
<td>39</td>
<td>Market Harborough BS</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>Marsden BS</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>Melton Mowbray BS</td>
<td>1</td>
</tr>
<tr>
<td>42</td>
<td>Mercantile BS</td>
<td>2</td>
</tr>
<tr>
<td>#</td>
<td>Institution</td>
<td>Count</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>43</td>
<td>NAB</td>
<td>1</td>
</tr>
<tr>
<td>44</td>
<td>National Counties BS</td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>Nationwide</td>
<td>5</td>
</tr>
<tr>
<td>46</td>
<td>Natwest</td>
<td>10</td>
</tr>
<tr>
<td>47</td>
<td>Newbury BS</td>
<td>1</td>
</tr>
<tr>
<td>48</td>
<td>Nomura plc</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>Northern rock BS</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>Npbs BS</td>
<td>3</td>
</tr>
<tr>
<td>51</td>
<td>Portman BS</td>
<td>1</td>
</tr>
<tr>
<td>52</td>
<td>Progressive</td>
<td>3</td>
</tr>
<tr>
<td>53</td>
<td>RBS</td>
<td>7</td>
</tr>
<tr>
<td>54</td>
<td>Sainsbury Bank</td>
<td>1</td>
</tr>
<tr>
<td>55</td>
<td>Scarborough BS</td>
<td>1</td>
</tr>
<tr>
<td>56</td>
<td>Skipton BS</td>
<td>6</td>
</tr>
<tr>
<td>57</td>
<td>Staffordshire BS</td>
<td>1</td>
</tr>
<tr>
<td>58</td>
<td>Stroud &amp; Swindon BS</td>
<td>1</td>
</tr>
<tr>
<td>59</td>
<td>Swansea Building Society</td>
<td>1</td>
</tr>
<tr>
<td>60</td>
<td>Teachers BS</td>
<td>1</td>
</tr>
<tr>
<td>61</td>
<td>Unity trust bank</td>
<td>1</td>
</tr>
<tr>
<td>62</td>
<td>Universal Bs</td>
<td>1</td>
</tr>
<tr>
<td>63</td>
<td>West brom BS</td>
<td>1</td>
</tr>
<tr>
<td>64</td>
<td>yorkshire bank</td>
<td>1</td>
</tr>
<tr>
<td>65</td>
<td>Yorkshire BS</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Unknown-Missing</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>151</strong></td>
</tr>
</tbody>
</table>
4. Which of the following best describes your firm's Internet usage strategy?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Sophisticated electronic fund transaction level</td>
<td>78</td>
<td>51.7%</td>
<td>51.7%</td>
</tr>
<tr>
<td>2) Basic online account info and interaction level</td>
<td>34</td>
<td>22.5%</td>
<td>74.2%</td>
</tr>
<tr>
<td>3) Advertisement and communication level</td>
<td>37</td>
<td>24.5%</td>
<td>98.7%</td>
</tr>
<tr>
<td>4) Not yet using the Internet</td>
<td>2</td>
<td>1.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

![Bar Chart](image-url)
5. Which of the following best describes your firm's Internet entry strategy:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) First mover (1 and 2 in the market)</td>
<td>26</td>
<td>17.2%</td>
<td>17.2%</td>
</tr>
<tr>
<td>2) Early follower (entry within 2yrs after 1st mover)</td>
<td>88</td>
<td>58.3%</td>
<td>75.5%</td>
</tr>
<tr>
<td>3) Late entry (all other players in the market)</td>
<td>36</td>
<td>23.8%</td>
<td>99.3%</td>
</tr>
<tr>
<td>4) Not yet using the Internet</td>
<td>1</td>
<td>0.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>
9. The Internet reduces operating costs.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>2</td>
<td>6.6%</td>
</tr>
<tr>
<td>3</td>
<td>11.3%</td>
</tr>
<tr>
<td>4</td>
<td>45.7%</td>
</tr>
<tr>
<td>5</td>
<td>35.8%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

10. The Internet increases the cost of marketing, training, advertisements, maintenance etc. cost.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20.5%</td>
</tr>
<tr>
<td>2</td>
<td>41.7%</td>
</tr>
<tr>
<td>3</td>
<td>22.5%</td>
</tr>
<tr>
<td>4</td>
<td>13.2%</td>
</tr>
<tr>
<td>5</td>
<td>2.0%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
11. The Internet has NOT improved service quality.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>56</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>151</td>
</tr>
</tbody>
</table>

12. The Internet’s low cost allows banks/building societies to provide competitive pricing.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>151</td>
</tr>
</tbody>
</table>
13. The Internet facilitates cross-selling of products and services.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.3%</td>
</tr>
<tr>
<td>2</td>
<td>13.9%</td>
</tr>
<tr>
<td>3</td>
<td>19.9%</td>
</tr>
<tr>
<td>4</td>
<td>55.6%</td>
</tr>
<tr>
<td>5</td>
<td>9.3%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

14. Aggregate/comparative web sites assist product sales. e.g. moneysupermarket.co.uk

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.3%</td>
</tr>
<tr>
<td>2</td>
<td>15.9%</td>
</tr>
<tr>
<td>3</td>
<td>28.5%</td>
</tr>
<tr>
<td>4</td>
<td>47.0%</td>
</tr>
<tr>
<td>5</td>
<td>7.3%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
15. The Internet has NOT provided customers convenience.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
</tr>
</tbody>
</table>

16. The Internet has enhanced customer interactions.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
</tr>
</tbody>
</table>
17. The Internet has better fulfilled customer needs.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>83</td>
</tr>
<tr>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
</tr>
</tbody>
</table>

18. The Internet has attracted new customers.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>82</td>
</tr>
<tr>
<td>5</td>
<td>47</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
</tr>
</tbody>
</table>
19. The Internet has helped to attract and retain high socio-demographic profile customers.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>2</td>
<td>5.3%</td>
</tr>
<tr>
<td>3</td>
<td>23.8%</td>
</tr>
<tr>
<td>4</td>
<td>57.0%</td>
</tr>
<tr>
<td>5</td>
<td>13.2%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

20. The Internet has enhanced customer service quality.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6.0%</td>
</tr>
<tr>
<td>3</td>
<td>24.5%</td>
</tr>
<tr>
<td>4</td>
<td>58.3%</td>
</tr>
<tr>
<td>5</td>
<td>11.3%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
21. The Internet has improved my company's image.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2.6%</td>
</tr>
<tr>
<td>3</td>
<td>22.5%</td>
</tr>
<tr>
<td>4</td>
<td>50.3%</td>
</tr>
<tr>
<td>5</td>
<td>24.5%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

22. Retail banks that offer a more comprehensive product range gain a greater advantage from the Internet.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>2</td>
<td>15.2%</td>
</tr>
<tr>
<td>3</td>
<td>28.5%</td>
</tr>
<tr>
<td>4</td>
<td>48.3%</td>
</tr>
<tr>
<td>5</td>
<td>7.3%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


414


Ansoff, H. I. (1965) Corporate Strategy Mcgraw Hill


Berst, J. (1998) Seven deadly website sins ZDNet AnchorDesk


Booz Allen, Hamilton, and The Economist Intelligence Unit (1999) *Competing in the Digital Age: How the Internet will Transform Global Business*, New York:


Canals, J. (1994) Competitive Strategies in European Banking *Clarendo Press, Oxford*

Second Americas Conference on Information Systems. 

The European Union Finance and Banking News Network


Journal of Economic Literature, 18: 64–92.


Chalikia, M. A guide to multivariate techniques [Web Page]. 2004. Available at: www.mnstate.edu/chalikia/Psy%20632/Notes/Notes.htm


CIBC (1998) Merger enforcement guidelines as applied to a bank merger Letter to the Canadian competition bureau

Clarke, K. (2001) What price on loyalty when a brand switch is just a click away? Qualitative Market Research: An International Journal 4,


Collis, D.J. (1994) Research note: How valuable are organisation capabilities? Strategic Management Journal 15,


Proceedings, Chicago

Commercenet (2000) Survey


422
Sievewright, M. (2002) Traditional vs. virtual service Credit Union Magazine
Credit Union National Association, Inc.

Creotec. Sustainable competitive advantage [Web Page]. 2005. Available at:


Datamonitor. Europe's online banking population to rise [Web Page]. 2003; Accessed 2004 Apr 26. Available at:
http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905358751&re=true

423


de Chernatony, L. and Dall'Olmo Riley, F. (1999) Experts' views about defining services brands and the principles of services branding *Journal of Business Research* 46 (2) 181-192


De Young, R. and Hunter, W. C. (2001) Deregulation, the Internet, and the Competitive Viability of Large Banks and Community Banks.


426


ECB (European Central Bank) (1999) The effects of technology in the EU banking systems. *Frankfurt am Main* July,


the UK. *British Journal of Management* 7, 219-230.


Forrester Research. More than 60 million Europeans bank online etc. (2003. 2004)


Virtual Communities. *Harvard Business School Press*


433


436


Kite, S. (2004) E-Banks: Some Ideas Die Hard: Branchless Banking for Example; The EverOne Financial Center arrives even after a number of other virtual pureplays have flamed out. *Bank Technology News* 17, 51


McCandlish, S. EFF's Top 12 Ways to Protect Your Online Privacy. 2002


McGuinn, M. (2002) Mellon, a few parts make a better whole. ABA Banking Journal online


Metcalf and Benson (2000) From Unemployment to Self-Employment: Developing an effective structure of micro-finance support. NIESR publications Discussion paper 170

technologies: Understanding customer satisfaction with technology-based service encounters. *Journal of Marketing* 64(3) 50-64


442


Morgan, A. (1996) Relationship marketing: how market research can help build better relationships with your customers Research International, Admap


Moutinho, L. and Smith, A. (2001) Modelling bank customer satisfaction through
mediation of attitudes towards human and automated banking. 


Murphy, P.R., Daley, J. and Dalenberg, D.R. (1991) Exploring the effects of postcard pre-notification on industrial firms' response to mail surveys. 


*Journal of Internet Banking and Commerce* **2**,


Norman, DA. and Bobrow, DG. (1975) Active memory processes in perception and cognition. *The Structure of Human Memory In Cofer, CN.*


2004.


Pennington, S. (1999) Bricks and mortar banks could struggle in cyberspace. *Informatics*


Poulter, S. (2000) We must talk face to face, customers tell bankers. *The Daily Mail* 37,


Rackley, T. (2000) Planning is key to cyberbanking success *Bank System and Technology* 37(2)

Ramsaran, C. (2004) Knowledge is Power *Bank Systems and Technology*


Sampler, J.L. (1998) Redefining industry structure for the information age. 450


Smith, M., Bailey, J. and Brynjolfsson, E. (2000) Understanding digital markets:


Sourbati, M. (2004) Internet use in sheltered housing: Older people’s access to new media and online service delivery. Joseph Rowntree Foundation; Digital Age


Soyouwanna (2000) web site


Stone, M. (1997) *Royal Mail Financial Services Seminar*


Teece, D. J. and Pisano, G (1994) The dynamic capabilites of firms: an introduction *Industrial and Corporate Change. 3 No.3*


Terhune. A. (1997) Extranets: Great EC strategies don't die; they get recycled. Stamford CT USA:


456


