

**The Provision of
Electronic Banking Services
in the UK and Scandinavia**

By

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ABSTRACT

Electronic delivery is forecast to become a major distribution channel for many service companies, particularly those that are based upon collecting, processing and delivering information. This paper examines electronic retail banking services in two European regions, the UK and Scandinavia. A mailed questionnaire was used to understand and, where possible, quantify the external market and internal factors known to be important in the development and launch of such services. It is found that, at the time of the study, the majority of respondents in both regions are already either developing or providing electronic banking services. The factor viewed as most important in driving the provision of electronic services is a corporate vision of the future in which the banking market becomes ever more competitive and customers demand greater convenience. The nature of the customer segment that is expected to adopt such electronic services, being of high net worth, and the organisation's reputation for innovation are also considered important factors.

INTRODUCTION

No one in business today can have failed to have heard the forecasts made for the impact of the internet on every market sector (see for example; Foremski, 1999). It is expected that services will be particularly affected by such on-line access (Jones and Biasiotto, 1999) as these often do not rely on the delivery of physical goods, rather the capture, processing and delivery of information. One such service sector which has started to embrace the use of on-line services is the retail banking sector. The increasingly competitive environment in the financial service market has resulted in pressure to develop and utilise alternative delivery channels and the most recent delivery channel to be introduced is electronic or on-line banking.

The term electronic banking is used to describe the provision of information, or services, by a bank to its customers via a computer or television. In its very simplest form, electronic banking can mean the provision of information about the bank and its products via a page on the World Wide Web (WWW). A more developed service is one that provides the customer with the opportunity to gain access to their accounts and execute transactions or to buy products on-line and it is such 'transactional' services that are considered in this study.

This paper examines electronic retail banking services in two European regions, the UK and Scandinavia and extends an earlier study that was based in the UK alone (Daniel, 1999). A postal questionnaire was used to understand and, where possible, quantify the external market and internal factors known to be important in the provision of such services. The paper commences with a review of the electronic banking literature and from this the research theme and methodology is developed. The findings are presented and discussed and conclusions and managerial implications are highlighted.

ELECTRONIC BANKING LITERATURE

A number of recent academic studies are helpful in considering the provision of electronic transactional services by banks. The impact of major trends, such as; customer demands for greater convenience, increasing use of technology and deregulation, has caused the retail banking sector to focus considerable attention on their distribution channel strategies (Devlin, 1995; Lockett and Littler, 1997). Trethowan and Scullion (1997) found that the percentage of customers that visit bank branches is expected to fall whilst the number of alternative delivery channels will increase.

Electronic banking services were first launched in the early 1980's. In the UK the 'Homelink' service was provided by the Nottingham Building Society and the Bank of Scotland (Tait, 1989). However, in general, they failed to gain widespread acceptance and most were discontinued. Since the rapid growth of other types electronic services, most based upon the internet, there has been a renewed interest in electronic banking services and many banks throughout Europe have recently launched or are developing such services (Booz Allen and Hamilton, 1996; Daniel *et al*, 1998).

The advantages of electronic banking services, such as; increased convenience and functionality, are discussed in detail by Johnson *et al.* (1995). Baldock (1997) uses the term 'virtualisation' to describe the benefits offered to both the bank and the customer by electronic banking. McMahon (1996) considers three direct delivery means; the telephone, the PC and the World Wide Web and concludes that these should be employed in a complementary and integrated way with existing distribution channels if financial service providers are going to survive into the next decade. Finally, Dannenberg and Kellner (1998) propose the next step in electronic banking provision when they discuss the possibility of offering individual customer advice through internet picture telephony or video conferencing.

However significant electronic distribution is forecast to become, it is recognised by Peterson *et al* (1997) that consumers will undertake different information search and purchase strategies based upon the type of goods or services sought and that they will move between the co-existing channels to undertake these activities.

RESEARCH THEME AND METHODOLOGY

This study aims to explore the factors determining the current provision of electronic services by retail banks in the UK and Scandinavia. A questionnaire was developed that asked respondents about their current provision of on-line banking services. Five factors known to be important in an organisation's provision of electronic banking services were used to form the basis of further qualitative and quantitative questions. The factors, listed in Table 1, were determined from an earlier qualitative study on the provision of electronic banking (Daniel & Storey, 1997) and are discussed in detail in that study. Respondents were also asked to complete a four point Likert scale on each factor indicating its importance in defining their strategy towards the provision of electronic banking (1 'not important' to 4 'very important').

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| <ul style="list-style-type: none">• Maintain/develop a reputation for innovation• Defend/develop market share or strength• Organisational restrictions and limitations• Prediction of customer acceptance/demand• Vision of the future |
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Table 1: Factors determining the provision of electronic banking services

The questionnaire was mailed to the 44 largest retail banks and building societies in the UK and 82 Scandinavian banks covering the five countries shown in Table 2. These samples spanned a range from the largest banks in both of these regions (total assets in excess of £50 billion) through medium sized banks (total assets between

£10bn and £50bn) to smaller regional savings banks or building societies (total assets under £10 billion).

The questionnaire was addressed to a manager in the electronic banking department where it was known that this activity existed. Where this group could not be identified, the questionnaire was addressed to a manager in the IT department. Questionnaires were first posted in Summer 1997 and then remained in Winter 1997.

Responses were received from 25 UK organisations, representing a 57% response rate, and 21 Scandinavian organisations representing a 26% response rate. The response rate for individual countries in the Scandinavian region is shown in Table 2. Total responses used for analysis were therefore 46.

Country	Response Rate (%)
Denmark	33
Norway	29
Sweden	14
Finland	14
Iceland	10

Table 2: Response Rate from Scandinavian Countries

Two geographic regions were included in this study in order to result in a meaningful number of responses. The intention was not to be able to draw distinctions between these two markets and it is beyond the scope of this study to do so. Both the quantitative and qualitative findings of the study indicate that the two markets are in fact similar with identical comments being made by respondents from the two regions. However, in the following presentation of the findings, quantitative results are shown separately for clarity. The UK market was chosen since it is the home market of the author. Scandinavia is an interesting region in which to look at the adoption of new services since, it is widely considered that the Scandinavian countries have warmly adopted new technologies such as mobile telephones, ATMs and home computers. Penetration data for such new devices (NTC Publications, 1997; Jupiter Communications, 1996) show that countries such as Sweden and Finland have some of the highest uptake of such devices amongst European countries.

PROVISION OF ELECTRONIC RETAIL BANKING

It is recognised that quantification of the provision of electronic banking services at any one point in time is of limited value, due to the rapid growth in that provision. However, it was felt important to ask respondents if their organisation currently provided on-line transactional banking services so that responses to other questions could be understood in context. Figure 1 shows that in the UK 25% of those responding currently offer fully operational systems whilst the majority, 50%, either

have a trial system or currently have a system under development or consideration. Of the Scandinavian organisations responding, the majority (85%) currently operate a service available to all customers and the remaining 15% of banks either have a trial system or a system under development.

In the UK sample, all but two of the cases of companies not offering or developing a system consisted of the smaller banking organisations. The reasons given for the lack of services were; that they did not offer money transmission services or they viewed it as an issue of cost versus limited current customer uptake such that their approach could be described as “*not yet rather than not at all*”. The two exceptions were medium sized organisations (assets between £10 billion and £50 billion), one of which gave the reason “*our prime business area is in lending rather than banking and therefore our resources tend to be with lending sales initiatives*”.

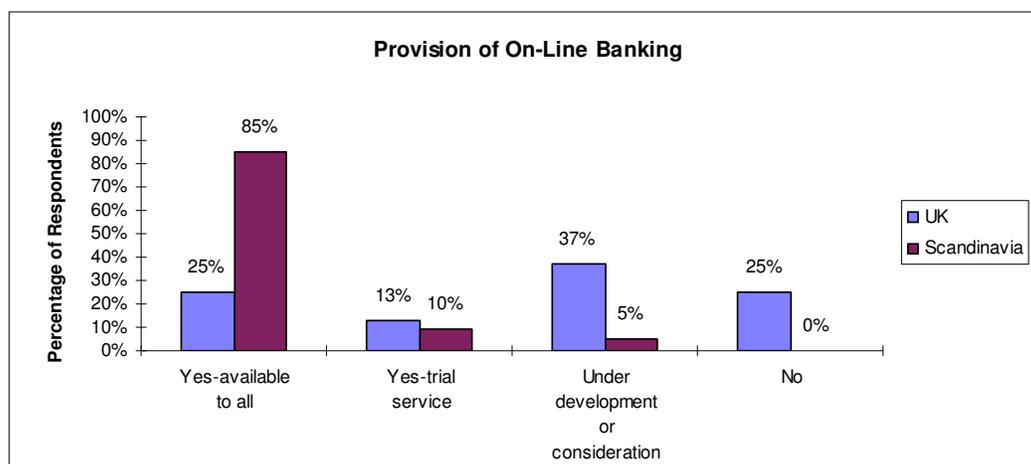


Figure 1.

FACTORS DETERMINING THE PROVISION OF ELECTRONIC BANKING

Each of the five proposed factors affecting the provision of electronic banking and the relevant questionnaire findings are discussed below.

Maintain or Develop a Reputation for Innovation

One of the most important criteria for the development of successful new offerings is an organisational competence for innovation (Ennew and Watkins, 1992; Johne and Storey, 1996; Ghoshal and Ackenhusen, 1998). It is also recognised that building a reputation for innovation may make it easier for a company to introduce new products or services in the future, as consumers are more ready to accept new offers from proven innovators (MacMillan & McCaffery, 1984).

In order to understand the degree of innovation within the respondent organisations the typology developed by Miles and Snow (1978) and used widely thereafter, see for example Griffin and Page (1996), was adopted. Respondents were provided with the

definitions shown in Table 3 and asked which of the four innovation types best describes their approach to new product and service development.

Innovation Type	Description
Prospector	Values being first with new products, markets and technologies
Analyser	Seldom first to market, but frequently a fast follower with a more cost-efficient or innovative product
Defender	Locates and maintains a secure niche by protecting their position in a relatively stable product or service area
Reactor	Responds to market changes when required by environmental pressures

Table 3: Miles and Snow Organisational Innovation Typology

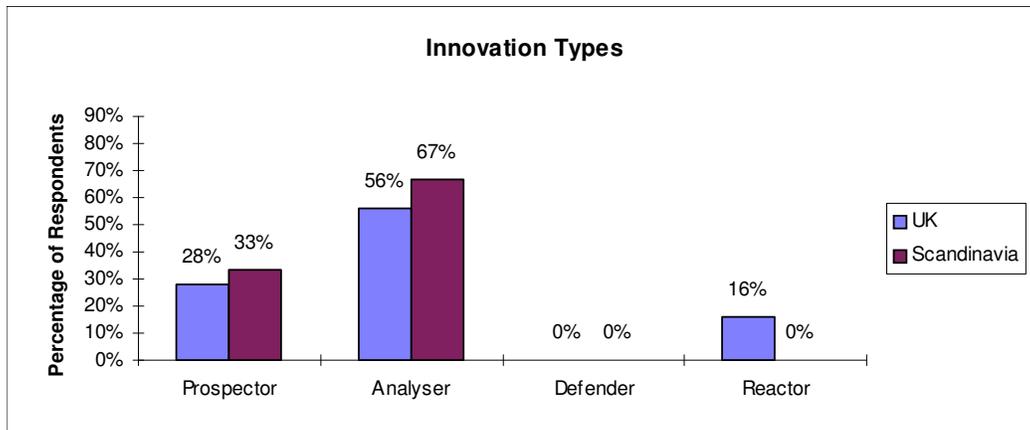


Figure 2.

The majority of respondents in both the UK and Scandinavia (56% and 67% respectively) described their organisations as ‘analysers’. When asked if their approach to electronic banking could be described in the same way 64% in the UK and 86% in Scandinavia felt that it could. Where they felt there was a difference, it tended to be that their development of electronic banking was slower than that of other products and services. Reasons given for this included “*the rate of change of technology in electronic services is too great to develop a final proposition in one go and therefore a more evolutionary approach is being adopted*” ; “*senior level inertia*” and “*our focus is on our core business of lending*”.

Defend or Develop Market Share or Strength

The intention of this factor was to determine if the respondents believed that the market share or resources of the organisation had an impact on their adoption of electronic services. Responses were analysed according to the asset bands described above. It was found that the large, national players (total assets in excess of £50 billion) felt that it was essential for them to develop electronic distribution in order to be consistent with the convenience and breadth of choice expected by a customer of a nationwide organisation. This was expressed by one such respondent as *“our strong focus on good prices and wide availability mean that low cost and widely available distribution channels are vital”*.

Large and medium sized organisations with a concentrated customer base (total assets in excess of £10 billion), such as the Scottish banks felt that electronic banking was an important way of growing their market share since it offers them a way of attracting new customers outside of their traditional region. Finally, the smaller organisations (assets below £10 billion) which also tend to have a limited geographic reach, believed that their limited resources were hampering their development of electronic banking, summed up by one respondent as *“we’d take our eye off the ball if we became involved in electronic banking”*.

Organisational Restrictions and Limitations

A factor that could be expected to explain the observed differences in the adoption of electronic services is restrictions or limitations within the organisation, as these may be expected to vary between organisations. Such limitations may arise from a lack of finance or staff with suitable skills. Respondents were split roughly evenly between those who felt that there were no restrictions on the developments of such services (43% in the UK and 57% in Scandinavia) and those that felt that there were (57% and 43% respectively). Those stating reasons frequently mentioned the squeeze on management and IT resources currently being caused by Year 2000 and EMU considerations. Others felt that the culture of their organisation hindered the development of such systems or there was not a fit with their current customer base, for example *“the culture in our organisation views on-line banking as novel and having no place in our customer base”*.

Some mentioned the lack of senior management support as a restriction to development. Given the profound effects that electronic delivery is predicted to have on the future of retail banking, it is alarming that the development of an on-line strategy is not being championed by senior level staff within these organisations. All academic studies on the successful development of new products and services in the financial services sector have stressed the need for a clear corporate vision and top management commitment (Ennew & Wright, 1990; Thwaites, 1992; Drew, 1995; John & Pavlidis, 1996).

Prediction of Customer Acceptance or Demand

Respondents were asked to estimate, within given bands, the percentage of their customer base that would make use of electronic banking services, if offered today. The results, shown in Figure 3, indicate that the majority of UK respondents predict less than 5% of their customers would currently use such a service. The majority of the Scandinavian respondents predicted that between 5% and 25% of their customers would make use of such services today. This low usage was based upon customer access to suitable PCs and the high level of customer inertia in changing their established banking arrangements.

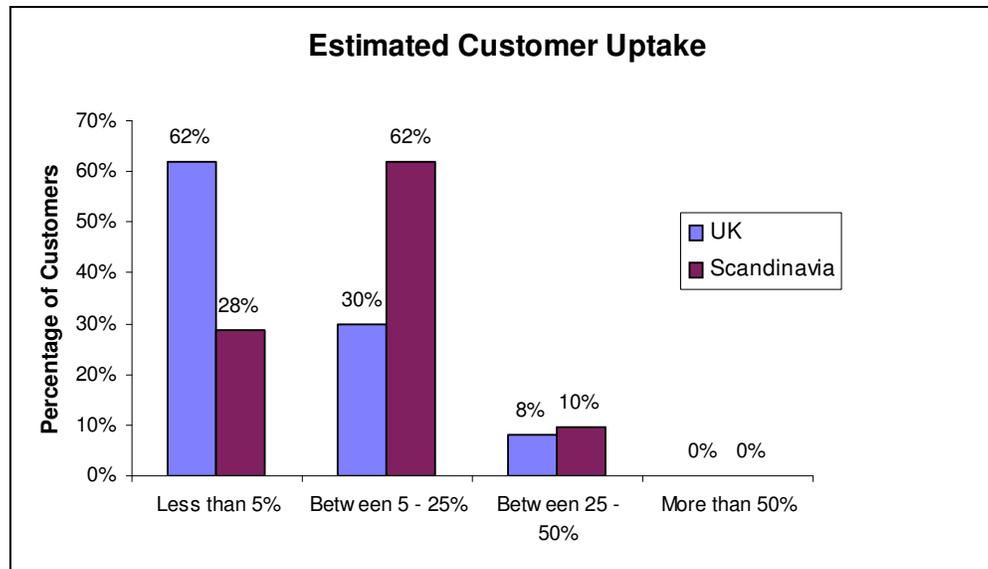


Figure 3.

Explanation for the provision of such services despite low usage forecasts is that the customers making use of these services are the most profitable customers of the organisation and are therefore important to retain, a fact that has been observed in the USA (Tower Group, 1997).

Vision of the Future

Respondents were asked to outline the main trends that they forecast in retail banking over the next five to ten years. Their responses included many of the trends already occurring in this market, such as increased competition from non-bank players entering the market. They also cited decreased consumer loyalty and increased transparency of pricing combining with electronic channels, such as the internet, to yield easier comparison shopping.

Respondents were asked to rank on a seven point scale how important electronic banking is to their future strategy (1 'very important' to 7 'unimportant'). The mean score of 2.93 (standard deviation of 1.70) in the UK and 2.19 (standard deviation of 1.65) in Scandinavia indicated that electronic services are important to the future

strategy. Those who rated it as important cited that it was necessary to offer customers the convenience associated with electronic banking if they were to stay competitive. In particular, some stated that it will be the most profitable customers that will adopt these services and therefore “*electronic banking will be a key component in our ability to prosper*”. Many respondents who rated it as important also recognised that it could be a key component in the reduction of costs and hence offer further competitive advantage.

RELATIVE IMPORTANCE OF FACTORS

In the final summary question respondents were asked to indicate the importance of each of the five factors discussed above on their adoption of electronic banking services and the results are shown in Figure 4. Respondents were also asked to note if there were any additional factors that they felt determined their electronic banking strategy, but no distinct factors were mentioned.

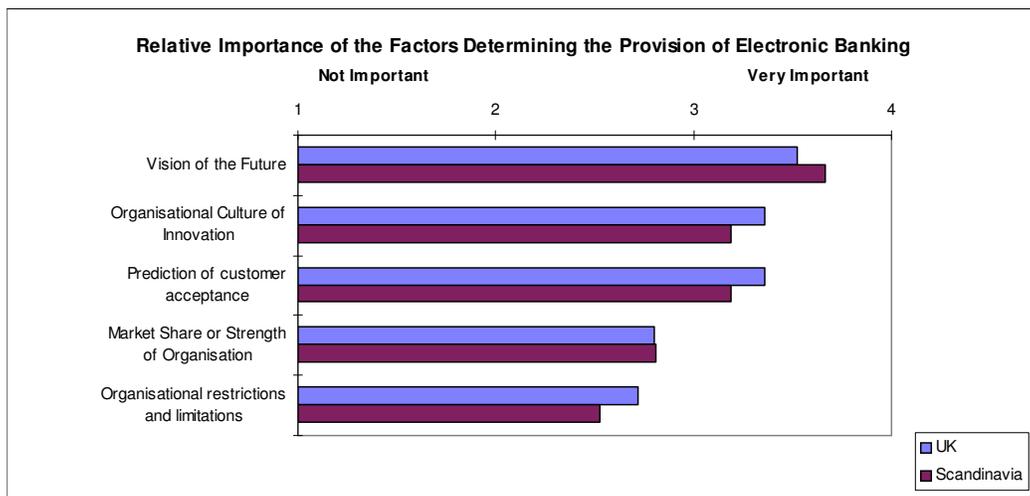


Figure 4.

All five factors were judged as important by both groups and the ranking of factors was the same for both groups. Respondents considered that the most important factor was their organisation’s vision of the future. This vision, outlined above, is of a continued move from current distribution channels to electronic distribution driven by both increasing competition and customers demanding increased service at lower prices.

Organisational culture of innovation and predicted customer acceptance was rated equally by both groups. As discussed earlier, an organisational capability for innovation and a reputation for innovation in customers’ minds are important in successfully developing such leading edge services. Despite the low usage by current customers, it is recognised that the early adopters of electronic services are the most

profitable customers and therefore it is necessary to develop such services in order to retain these customers.

The market share or strength of the organisation and its internal restrictions and limitations were ranked as the least important factors affecting the development of an electronic banking strategy. As discussed earlier, respondents from small regional banks as well as the largest national banks believed that an electronic service strategy was important for them. This implies that such strategies are independent of the size of the organisation, indeed one of the benefits of electronic commerce heralded by many is that it allows smaller companies to compete more evenly with larger organisations (Foremski, 1999). When an issue has been identified as important for the organisational strategy, as have electronic services by the current respondents, then it might be expected that organisational restrictions and limitations will be overcome or minimised in order to pursue that strategy.

CONCLUSIONS & MANAGEMENT CHALLENGES

Electronic delivery is forecast to become a major distribution channel for many service companies, particularly those that are based upon collecting, processing and delivering information. This study focuses on the retail banking sector and shows that, at the time of this study, the majority of respondents in both the UK and Scandinavia are already either developing or providing electronic banking services (75% and 100% respectively).

The strategic rationale for providing electronic banking services is led by a corporate vision of the future in which the banking market becomes even more competitive, whilst consumers demand greater accessibility, functionality and service at a lower price. Electronic channels, both PC and digital TV are expected to become increasingly important means of satisfying these competing challenges. An organisational capability for innovation and recognition of the importance of the customers who will adopt such electronic services are also important strategic drivers. Although this study used the retail banking sector for analysis, it may be expected that the above strategic reasons for developing electronic services apply to other service businesses. It is equally important for these to have a vision of the future of their industry, a ability to innovate and a profound understanding of their customers

Major challenges that can be expected to face managers in all service industries developing electronic delivery include; integration with existing distribution channels, pricing of electronic services and increased competition as new entrants and overseas companies find it easier to establish new service offerings. Other challenges which require considerable research, due to their far reaching consequences, include the origin of trust in a relationship that does not include tangible contact or the protection of privacy when providers can monitor and record customers' every key stroke.

REFERENCES

- Baldock R (1997), "The Virtual Bank: Four Marketing Scenarios for the Future", Journal of Financial Services Marketing, Vol 1, No. 3, p.260-268.
- Booz, Allen & Hamilton (1996), "Internet Banking in Europe: A Survey of Current Use and Future Prospects", London, UK.
- Daniel E, (1999), "Provision of Electronic Banking in the UK and the Republic of Ireland", The International Journal of Bank Marketing, Vol. 17, Nos 2 & 3, p.72–82.
- Daniel E, Molyneux P & Sharpe G (1998), Electronic Banking in Europe, The Stationery Office, UK
- Daniel E and Storey C (1997), "On-line Banking: Strategic and Management Challenges", Long Range Planning, Vol 30, No.6, p.890-898.
- Dannenber M and Kellner D (1998), "The Bank of Tomorrow with Today's Technology", International Journal of Bank Marketing, Vol 16, Issue 2, p.90-97.
- Devlin, James F (1995), "Technology and Innovation in Retail Banking Distribution", International Journal of Bank Marketing, 13, 4, 19-25.
- Drew S (1995), "Accelerating Innovation in Financial Services", Long Range Planning, 28, 4, 11 - 21.
- Ennew C and Watkins T (1992), "Marketing Strategy and the Marketing Mix in Financial Services", in Perspectives on Marketing Management Vol 2, ed Baker M, John Wiley, UK.
- Ennew C & Wright M (1990), "Retail Banks and Organisational Change", International Journal of Bank Marketing, 8, 1, p.4 - 9.
- Foremski, Tom (1999), "Competitors sharpen up their weapons for the digital contest", Financial Times Survey, March 24, p.I.
- Ghoshal, S and Ackenhusen, M (1998), "Cannon: Competing on Capabilities" in Strategy: Process, Content and Context. 2nd eds de Wit, B and Meyer, R, International Thomson Business Press, UK
- Griffin A and Page A (1996), "PDMA Success Measurement Project: Recommended Measures for Product Development Success and Failure", Journal of Product Innovation Management, Vol 13, p.478-496.
- Johne Axel F & Pavlidis M P (1996), "How Banks Apply Marketing Expertise to Develop New Derivatives", Journal of Product Innovation Management, 13: p.440-452.
- Johne, Axel F and Storey, Chris (1996), New Service Development: A Review of the Literature and Annotated Bibliography, City University Business School Working

Paper.

Johnson B, Ott J, Stephenson J & Weberg P (1995), "Banking on Multimedia", The McKinsey Quarterly, 2, p.94 - 106.

Jones, Ken and Biasiotto, Marco (1999), "Internet Retailing: Current Hype or Future Reality?", The International Review of Retail, Distribution and Consumer Research, 9, Jan, p.69-79.

Jupiter Communications (1996), "World Online Markets", New York, USA.

Lockett, Andrew and Littler, Dale (1997), "The Adoption of Direct Banking Services", Journal of Marketing Management, 13, p.791-811.

MacMillan I C & McCaffery M L (1984), "Strategy for Financial Services: Cashing in on Competitive Inertia", Journal of Business Strategy, 4, 3, p.58 - 65.

McMahon L (1996), "Dominance and Survival in Retail Financial Services: Use of Electronic Delivery Channels to Optimise Distribution Strategy", Journal of Financial Services Marketing, 1, 1, p.35 - 47.

Miles R E and Snow C C (1978), Organisational Strategy, Structure and Process, McGraw-Hill, New York

NTC Publications (1997), "European Marketing Pocketbook", Henley-on-Thames, UK.

Peterson, R. A; Balasubramanian, S and Bronnenberg, B. J (1997), "Exploring the Implications of the Internet for Consumer Marketing", Journal of the Academy of Marketing Science, Vol 25, No. 4, p.329-346.

Tait, Fiona and Davis, Robert H "The Development and Future of Home Banking", International Journal of Bank Marketing, 7, 2, 3-9, (1989).

Thwaites D (1992), "Organisational Influences on the New Product Development Process in Financial Services", Journal of Product Innovation Management, 9, p.303-313.

Trethowan J and Scullion G (1997), "Strategic Responses to Change in Retail Banking in the UK and the Irish Republic", International Journal of Bank Marketing, Vol 15, Issue 2, p.60-68.