

The Impact of Globalisation and Information Technology on the Strategy and Profitability of the Banking Industry

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Abstract

The profitability of banks world-wide has decreased from the early 1980s to the 1990s. This has been attributed to several factors: the decline of traditional banking activities (deposit taking and lending), poorly performing debts (arising from poor lending decisions) and for domestic banks to factors such as depressed property prices and important local industrial sectors performing badly. However the analyses of bank performance tend to be short-term and narrow in their outlook, and seldom attempt to explain the underlying trends and processes of change. In this paper it is argued that the broad competitive forces of information technology, globalisation and deregulation are de-stabilising the banking industry which leads to irrevocable changes which allow new entrants, disintermediation, innovation and customer changes on a much greater scale than has occurred in the past. These concepts are illustrated using a range of different bank markets as examples. To compete in these new markets different approaches are needed. Possible strategies for addressing new bank markets are outlined with reference to size and type of bank and the long-term outlook for banking is discussed.

1. Introduction

The business impacts of information technology (IT), deregulation and globalisation on the structure and profitability of the international banking industry is analysed. Information technology creates new opportunities for the banks in the way they organise product development, delivery and marketing. However IT also allows other financial and even non-financial organisations to start offering bank services. Deregulation both within countries and across national boundaries allows increased international competition

between banks, financial and non-financial organisations. Bank markets, in general, are also becoming more international.

The combination of new IT, deregulation and globalisation ensure that new ideas and innovations spread quickly and break down the traditional barriers to entry in the banking industry. This can be seen clearly in the internationalisation of retail financial services (including banking) particularly across Europe and the US, the development of novel banking systems such as IBOS and Digicash, and the growth of retailer and automotive companies' activities in what were once traditional bank markets such as deposits and loans. For example Ford Financial Services generates over a billion dollars in profit for the car maker and disintermediates the banks from their traditional role of providing finance for automotive purchases (Kapoor 1994, 1995). The competitive forces in banking have led to a decline of traditional banking indicated by a reduction in the profitability of banks (Gorton and Rosen 1995, Edwards and Mishkin 1995, Danton 1992, Colwell 1991). The most striking evidence is the reduction in income from lending activities as a percentage of total income. This decline in traditional banking has led some commentators to question the long-term viability of retail banks (Anon. 1996). The decrease in the profitability of traditional banking has been attributed to a number of factors, notably increased competition, poorly performing loans (both domestic in the case of France and the UK, and to LDCs) and high cost bases. Bad loans are clearly a short to medium term crisis which can be overcome if an individual bank has sufficient reserves. Similarly a high cost base can be reduced over time. However the level of competition is unlikely to diminish. The focus of this paper is to examine the nature of the new competitive environment for banks, in particular the role of IT in: (1)

enabling bank markets and competition to become more international; (2) the importance of IT to support new entrants' strategies; (3) IT-enabled innovation in banking.

Globalisation and information technology are combining to create a more unstable banking environment in which new entrants and innovation are reducing the traditional income streams of banks. The dynamics of the banking industry are related to the reduction in revenues and it is postulated here that, in general, the global banking industry is entering into a spiral of decline. The strategic responses of most large banks, particularly the trend towards mega-mergers and internal cost-cutting, are shown to be insufficient in the long term to offset the reduction in income and counter the new competitive forces. A range of strategic options are outlined which will allow a minority of individual banks to prosper in the new banking environment and these will be discussed with reference to different sizes and types of bank.

To understand the dynamics of the banking industry, it is necessary to consider the collective impact of these forces on the strategies and structures of individual banks. Research on the effects of IT and globalisation in banking tends to be narrow in its focus, for example to analyse one market segment (Large 1996, cross-border payments), a specific type of technology (Tomasula 1996, relational databases) or a limited geographic market (Javetski 1996, French banks). This is true for both academic research papers and also for many market research projects carried out by the banks. The purpose of this paper is to give an overview of the diverse range of phenomena occurring in the banking industry and explain them in theoretical terms. The research is of importance for gaining a general understanding of the banking industry as a whole and also for understanding the development of individual bank strategy. The ideas are grounded in previous research which the authors have carried out with a range of international banks. In the next section an overview of traditional bank markets is presented.

1.1. Traditional Bank Markets

Traditional bank markets were relatively stable and bank profits were high. In the early 1970s the net interest spread between lending and deposit taking accounted for a large percentage of total income (around 80%) for the four large universal banks in the UK; Barclays, NatWest, Lloyds and Midland. By 1990 the figure was approximately 60% (Colwell 1991). (The balance of the

banks' incomes would be completed by fee based income). This picture is also true for American banks over the same period, for example see figure 1 for an illustration of how interest income as a proportion of total income has declined since 1970. For a corporate bank, the ratio of fees to lending income would be greater than a universal bank but lending income would still provide the bulk of the income. In a stable environment it was possible for banks to secure low risk, high returns on their capital. Losses only occurred as a result of poor risk management or failed own account trading. However significant changes in the competitive forces are destabilising the status quo in banking. Each of these is discussed in turn. (For a broader discussion of the relationships between shrinking bank markets, bank strategy and risk see *The Economist* 1996a).

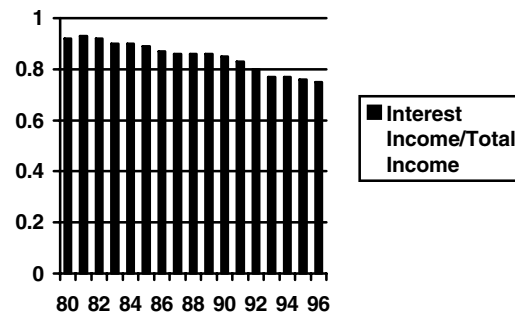


Figure 1. The decline of traditional banking activity. Source: US Federal Deposit Insurance Corporation, *Statistics on Banking*

2. Competitive Forces in the Banking Environment

The three major forces of de-regulation, globalisation and information technology affect each other and it is their *collective* as well as individual impacts on banks which is of interest. Their combined effect is to destabilise traditional bank markets to create a new environment for banks in which to compete (see figure 2).

Competitive Forces in Banking

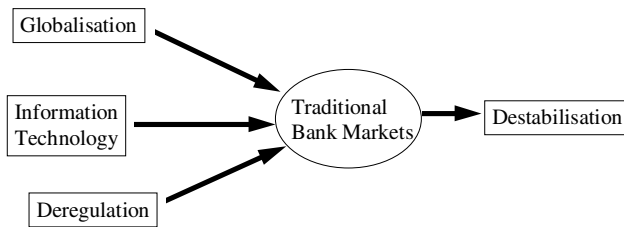


Figure 2. Competitive Forces in Banking

De-regulation in the US banking industry creates new opportunities for regional banks to compete in other states (Harrington and Warf 1995), and information technology makes strategic innovations possible. For example IT and novel marketing strategies create opportunities to deliver financial services through alliances which allow the shared use of technology platforms such as Automatic Teller Machines (ATMs) and payment processing systems. Another example is the global management of international relationships (e.g. see Javetski et al 1995 and Dwyer et al 1995 for a discussion of global strategies in banking). Bank customers are creating new organisation structures which are managed on a global scale and co-ordinated through networked information systems. There are multiple decision makers located in different continents and complex inter-dependencies exist which require access to financial expertise across product ranges and across geographic boundaries (Javetski et al 1995). It no longer makes sense for a bank to treat these types of customers as national entities. Instead an approach must be taken which can handle the requisite variety of the customer by offering bank products, knowledge and expertise, and relationship management on a global scale. The only effective way to co-ordinate this type of activity quickly is through an electronic delivery channel.

There are a number of new entrants into banking, for example international banks entering into domestic banking, financial service organisations diversifying into banking, and non-financial organisations such as retailers offering banking products. Taking a domestic bank first, with increased globalisation of competition, foreign banks can enter domestic markets and focus on niche markets. They can 'cherry pick' the most profitable customers by assessing their risk and banking requirements more accurately than a more general marketing offering by the domestic banks. This can of

course work in both directions but to make this strategy work the bank must have some form of competitive advantage arising normally from superior information systems and marketing.

At an aggregate level what has made the competitive forces of de-regulation, globalisation and information technology so powerful in the 1980s and 1990s is the extent of the changes: de-regulation of financial markets on a global scale; the emergence of truly global trading systems composed of networks of individual organisations; and the creation of extremely cheap and effective telecommunications networks for both retail and industrial customers which make the international flow of trade and bank data an almost trivial exercise. Individual instances of change are continuously announced and analysed in the business press (e.g. see Crane and Bodie 1996). In the next section a group of case examples is presented to illustrate the impact of deregulation, globalisation and IT on different bank markets.

3. Case Examples

3.1. International Payments Market

International payments has traditionally been carried out through the SWIFT network and the banking regulations ensure that the club of international banks who form the world-wide network of correspondent banks receive income for managing payment transactions and also from interest earned while the money is in their temporary control. This position has remained broadly static from the inception of the SWIFT network to the early 1990s when a range of alternative mechanisms for managing international funds transfer emerged. The new entrants include IBOS and smart card technology (Holland and Cortese 1995). The effect of these new entrants is to reduce the overall size of the payments market by offering cheaper and in most cases faster methods of moving money.

3.2. Retail Banking

In retail banking the traditional relationship has been between the bank's staff and individual customers. The bank's principal role was to act as an intermediary between the customer and the financial markets, typically using its own products. With the advent of electronic delivery channels and the de-regulation in many countries of the financial services market, it is possible for new entrants to offer banking and other financial

services direct to the end customer. Technology such as database marketing, risk management software and electronic delivery channels such as the telephone, satellite communications, the internet or a combination of all of these, allows new entrants to quickly and easily enter the banking market and select the most profitable customers. A good example of a foreign bank entering into a domestic market and picking the most profitable customers for a particular product-market is MBNA Corporation (Weber 1994). MBNA markets credit cards using affinity programs. It contacts organisations whose members are likely to fit the profile of profitable bank customers and develops a joint marketing strategy where the profits from the transactions are divided between MBNA and the affinity organisation. To implement this type of business marketing strategy successfully, flexible information systems are needed to manage the large number of individual consumers and their relationships to particular organisations. Another example of innovation within the banking industry is the case of First Direct, a direct banking operation which is owned by an incumbent, Midland Bank. First Direct successfully launched an innovative banking product using simple technology to offer superior customer service. The effects are to create a new banking unit with lower cost/income ratios but to add to the total cost of infrastructure for the parent bank. Similar initiatives are taking place in other financial services such as insurance, for example the case of Direct Line Insurance PLC (Channon 1996). These examples of disintermediation of the traditional banking/insurance structures have several effects: it lowers profit margins for the banking/insurance industry as a whole, it makes economies of scale more difficult to realise for financial institutions with expensive legacy systems, and it raises the expectations of the customer markets because superior products at lower prices are being offered in many cases - the benefits of lower cost/income ratios can be passed on to the customer.

3.3. Securitization of Assets

For companies with a secure cash flow from their customers, for example utility companies and large retailing organisations, it is now possible to treat the cash flows as an asset and create securities whose value is based on the reliability of the cash flow. The securities can then be sold privately to institutional investors or sold publicly. This is advantageous to the issuing companies when the cost of raising funds in this way is less than the cost of raising funds using other methods, notably, short-term borrowing from financial institutions such as banks. The process has the effect of disintermediating the banks from their traditional role of

taking deposits and lending. The combination of deregulation and information technology make capital markets easier to access for both the issuers (normally the company owning the underlying assets such as a large group of customers) and the investors then this type of activity is likely to grow and take away market share of lending from the banks. An example of how this concept has been applied is in the retail pharmaceutical industry (Schiffrin and Rudnitsky 1996). Retail pharmacists manage high volumes of low-value transactions. \$40bn. worth of the prescriptions market is paid for through health care plans where the payment is guaranteed by the customer's health care organisation. The risk element in these transactions is 3% which results in over a billion dollars underpayment. Ordinarily the pharmacists would fund their operations through bank loans but a company has been set up to securitize the payments assets and sell them to investors. Advanced payment information systems connecting the pharmacists to the special company set up to market the assets aim to reduce the risk of non-payment by credit checking and manage funding to the pharmacists and payment to the investors. The whole process takes the bank out of the cash supply chain.

3.4. Virtual Banking

One notion of virtual banking is the replacement of traditional delivery channels for bank products, particularly bank branches, by electronic channels such as telephone, cable and satellite TV, the internet or a combination of these channels. These developments are certainly taking place and are extremely important but they only represent one facet of the virtualisation process taking place in banking, the customer interface. In addition to changes taking place at the customer-bank interface there are significant changes taking place in the networks of relationships between banks and their information services suppliers which represent new forms of virtual organisations based on the sharing of assets, information and marketing co-operation through webs of relationships. For example Barclays virtual global bank offers small and medium sized national banks an alternative to expensive multiple correspondent relationships to gain an international presence for payments and receivables (Lockett and Holland 1996). Barclays offer an electronic link between their own global market network and national banks which allows the national banks to reduce their international correspondent network with the possibility of using Barclays as a single supplier of international payments and foreign exchange. This is particularly attractive for those banks whose revenue from reciprocal banking

arrangements is smaller than the cost of maintaining banking relationships measured by IT spend, administration costs and cash float interest losses.

3.5. Digital Cash

Two major objectives of the banking system are to provide liquidity for trade and security for the exchange of money. As more trade becomes conducted electronically, the shortfalls of traditional methods of financial exchange through the existing banking systems become apparent. The high cost of international payments make it particularly difficult to make one-off, small value deals viable. There are now a number of different digital cash alternatives which can be exchanged between any individuals or companies worldwide through some form of electronic channel, whether this is the telephone system or the internet. The competing digital alternatives to cash include bank offerings such as NatWest's Mondex card and Citibank's electronic monetary systems, and non-bank products from new entrants such as Digicash and Cybercash (Holland and Cortese 1995). Taking deposits and lending is at the heart of a commercial bank's activities. If digital cash takes over a significant part of the money supply then the effects on banks will potentially be to reduce their role as a conduit for financial transactions which could then have knock-on effects for lending and deposit taking. At the moment banks normally have a good reputation with consumers but if a reputable organisation from another industry were to offer a viable digital alternative to cash then it could reduce the importance of banks.

3.6. Just-In-Time (JIT) Finance

Commercial organizations require liquidity for trading and need to be able to move money between divisions within the same company and between themselves and their customers and suppliers. If a company trades internationally then there is the added complexity of international funds transfer and foreign exchange. Traditionally companies would have tended to have multiple bank relationships within each country of operation. An important role for banks is to provide the liquidity required for their customers' trading activities. The following examples suggest that the importance of this role will diminish as JIT finance becomes more common.

In manufacturing industry the concept of JIT delivery of physical products is well established and the benefits are well documented (Browne et al 1993). The major

cited benefits from implementing JIT techniques in manufacturing are a improved performance in asset management, lead-times and back-orders. Quality is also improved because problems in business processes become more transparent and can be resolved much more quickly than when they were hidden by large reserves of stock and work-in-progress. It seems reasonable that if JIT techniques can be applied to the management of the flow of physical products though a supply chain then they should also be applicable in a financial context. The dearth of case examples in finance is because banking is behind manufacturing industry in its investment in information technology and concomitant innovation in business practice. However there are some recent examples which demonstrate how JIT finance will affect banking.

Rabobank is developing a JIT finance system for their customers with the objective of delivering credit finance on a JIT basis. That is, advance payments will be made by the bank to an organisation for deliveries and transactions which have actually taken place between the organisation and its customers (Kerkhof 1996). Credit to support the development of the business is delivered in frequent small quantities to match the actual logistics processes. The EDI co-ordinator of the bank believes that this method of financing will result in better risk management which can be passed onto the bank's customers through lower interest rates and lower levels of outstanding debt because the debt is only increased as it is actually needed, rather than taking large amounts of credit infrequently. This is an interesting example because it demonstrates the viability of new methods of financing businesses based on inter-organisational use of information systems connecting the bank with customers and suppliers within a supply chain. However it may understate the true potential of JIT money. Motorola and Citibank have developed a global system for managing the internal treasury function of Motorola and payments with its suppliers (Holland et al 1994). The objective here is not for the suppliers of Motorola to receive finance from the bank on a JIT basis, but to receive payments from Motorola so that cash flows mirror product flows. Citibank's principal role is to deliver the payment rather than provide JIT finance. It can be seen that if all companies started to pay their suppliers *as soon as they received the product* then manufacturing supply chains would require much less financial liquidity, in exactly the same way that stock levels are reduced when JIT manufacturing techniques are used. The effect on banks will be to reduce the level of funding needed to support the working capital cycle of customers because the uncertainty of their cash flows will be reduced

considerably. (There will also be significant effects on accounting because credit management will be made much simpler.)

4. Case Discussion and Proposed Model

In addition to these examples of market change, there are many others which are affecting bank profitability, for example reduced margins in the foreign exchange market (Harveson 1996), and reductions in the size and profitability of lending and deposit markets (*The Economist* 1996a). The basic argument is that traditional banking strategies and structures based on high investments in buildings and legacy computer systems are being undermined by a combination of innovation within the banking industry and the entry of new banking products from outside the industry.

The principal outcomes are grouped under four different categories of change which are affecting banks. The categories are intended to capture the major changes and distinguish them by differences in competitive strategies. The categories are based on Porter's five forces model (Porter 1980). They are: (1) New entrants from outside the banking industry; (2) Innovation from existing banks which represent a step-change in business practice; (3) dis-intermediation (4) Customer changes. The combination of these forces leads to a spiral of decline in bank markets which is shown in Figure 3.

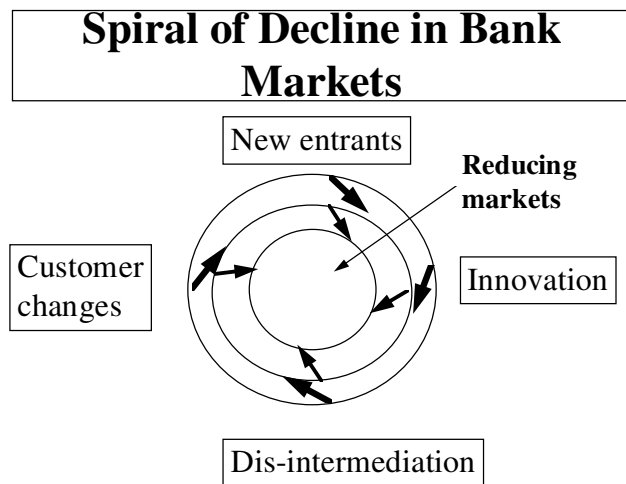


Figure 3. Spiral of Decline Model

In all the case examples of different markets cited, a combination of the above factors changes fundamentally

the organisation of the market. In the case of international payments, the new entrants include IBOS, smart cards, Digicash and company based cash management systems designed to reduce the volumes of payments going to the banks by off-setting cash flows within a group of companies (Holland et al 1994, Holland and Cortese 1995). The effect of these new entrants is to reduce the overall size of the payments market by offering cheaper and in most cases faster methods of moving money. Similarly in the retail banking example, the traditional relationship has been between the bank's staff and individual customers. The bank's principal role was to act as an intermediary between the customer and the financial markets, typically using its own products. With the advent of electronic delivery channels and the de-regulation in many countries of the financial services market, it is possible for new entrants to offer banking and other financial services direct to the end customer. Technology such as database marketing, risk management software and electronic delivery channels such as the telephone, satellite communications, the internet or a combination of all of these, allows new entrants to quickly and easily enter the banking market and select the most profitable customers. This disintermediation of the traditional banking structures has several effects: it lowers profit margins, it makes economies of scale more difficult to realise for banks with expensive legacy systems, and it raises the expectations of the banking market as a whole because superior products are being offered in many cases. In addition to these instances of market change, there are many others which are affecting bank profitability, for example reduced margins in the foreign exchange market (Harveson 1996), and reductions in the size and profitability of lending and deposit markets (*The Economist* 1996a).

The prediction from the spiral of decline model is that income streams for a universal bank are gradually declining because of new entrants, customer changes, dis-intermediation and innovation. If declining revenues are combined with economic cycles one would expect a cyclical downward curve of revenues and profitability. The cost-cutting of the banks improves the profit level but it is postulated that simple cost-cutting or economies of scale from shared operations arising from mergers will be insufficient to counter the long term loss of revenues.

5. Strategic Response of Banks

The strategic response of banks with expensive building and system infrastructures is to cut costs using a variety of methods. The most obvious change to the

banking industry is the spate of mergers and acquisitions (*The Economist* 1996b), where economies of scale arising from shared technology and a larger customer base are cited - significantly better customer service is rarely mentioned. Cost cutting serves the purpose of maintaining profits in the short run but does not address the more fundamental issues of poor customer service, slow product innovation and falling or static revenues. It has also led to internecine debates about cost allocation of central systems to individual product groups and new product investment. This is particularly noticeable in banks which have launched innovative products such as telephone banking which compete directly with established products. An internal focus on cost-cutting and management de-layering inevitably affects the ability of a bank to understand its customers' needs and may mask the spiral of decline. The increased sophistication and willingness of customers to switch banks exacerbates the situation. A different approach to market strategy for existing universal banks is to focus on a particular stage of the value chain.

6. Focus Strategies

The Universal bank's markets are still determined by the historic influence of providing a broad range of services to a broad localised target market. The key reason for attempting to capture as large a share as possible of a local market was to cover the fixed cost of operating a branch which until recently completed most of value added functions for the customer (sales, processing and localised decision making/risk taking). In their own local markets they typically have a high share of the existing business (see figure 4).

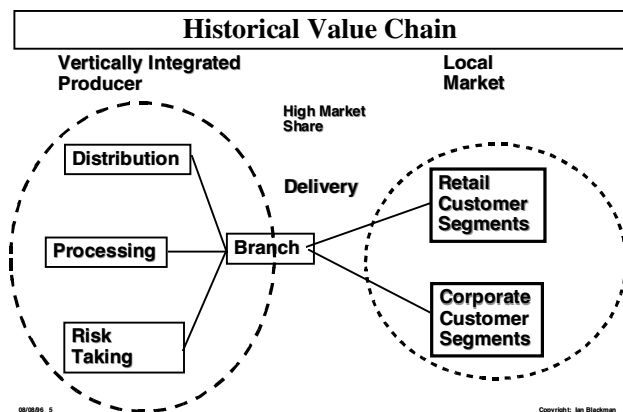


Figure 4. The Historical Value Chain for a Universal Bank

A number of institutions are attempting to continue to access the cost savings of removing the individual processes from the branches and increasing the scale efficiencies of the centralised processes by merging with similar institutions. The institutions that proactively use the developments in technology to positively change the way that they produce and deliver services to meet the developing needs of specific market segments have a strong potential to grow their market share.

Rather than attempting to replicate their existing vertically integrated business in new markets the universal banks can focus on growing their total global market share of a specific portion of the value chain.

The processing and risk taking capabilities of separate financial institutions can be integrated to produce an electronically delivered packaged product that looks as though it is has been produced by the institution managing the client relationship (the distributor).

The ability to integrate processes offered by separate financial institutions has greatly reduced the entry costs to markets by enabling the new entrant to purchase the components of its financial products on a variable basis rather than building the whole infrastructure.

6.1. Growing a Processing Business

Once a financial institution has invested in automating a particular internal process there is the potential to offer the capability to other institutions that have yet to make the investment. By centrally processing transactions for a number of institutions the unit cost can be reduced to each of the players. The Universal bank providing the service increases its income to fund further developments and further specialise in the production of a specific process. While this is common practice in credit card and payment processing within the US there is the potential for a global market to develop with the concentration of core processing sites from thousands of internal providers to three to four scale global producers.

Before investing in automating an individual process large universal banks should determine if they believe they can develop the capability into a service that can serve a global customer base. If they cannot then efforts should be made to develop an alliance with an institution that has already made a large portion of the investment and that is looking to build scale economies. By passing the processing capability to another institution the benefits of automation should be delivered earlier, access provided to a higher level of investment in developing

the service and capital that would have been used to build the capability is freed up to invest in an area that the bank has a real strength.

6.2. Building a Global Risk Management Business

The cost of operating a trading operation in a specific market has been increasing steadily with the increasing sophistication timely feeds of market information and decision making tools used to compete in the markets. The increasing transparency of financial markets and the ability to link directly to market makers has created the opportunity for institutions to automatically pass specific elements of risk to the capital and money markets at a transparent cost without operating their own dealing operation.

The risk takers with the ability to provide automated links to their customers can serve a global customer base of financial institutions in a timely fashion without facing capacity restraints. The institutions that are willing to link to specialist risk takers eliminate the requirement to maintain expensive dealing operations and again free up capital to invest in areas where they believe they have a strength.

6.3. Building Globally Recognisable Brands

There are several thousand brand names in the global financial industry with relatively little differentiation to separate their product offerings. Surprisingly few financial institutions approach the marketing expenditure of the leading global brands in other industries (i.e. Coca Cola, Toyota) By focusing on the needs of specific markets and reducing the cost of serving the customer base by integrating with specialist risk takers and processors the marketing expenditure can be raised to build a global brand. The ability to directly access customers electronically reduces the barriers to new markets, and the ability to link electronically to existing institutions serving a market provides the opportunity of selling branded financial products through established distribution channels.

6.4. Summary of Focus Strategies

The Universal banks serving a large portion of a local market need to determine which particular parts of the value chain have the potential to be developed into globally competitive business's in their own right. By working in partnership with other institutions to reduce the number of elements that require investment, and focusing on areas of strength the Universal banks can

continue to improve the capabilities and services provided to their current customer base while reducing the actual cost of supporting the services.

The banks that continue to operate a vertically integrated structure focused on cutting the costs of each specific process by merging with similar organizations or improved process control are in danger of being unable to respond to the improvement in the financial services offered by institutions focused on specific global market segments.

Once the market recognises significant differences in the quality and price of the services offered by specific suppliers the customers historic reluctance to move suppliers could be overcome. If the existing Universal banks leave their response to the time they recognise a reduction in market share they are unlikely to be able to react in time to recoup their position.

7. Conclusions

The combined forces of deregulation, globalisation and information technology have already changed the performances, strategies and structures of individual banks, as witnessed by declining profitability (Colwell 1991, Danton 1992, Gorton and Rosen 1995), the spate of mergers in the late 1980s and early 1990s (The Economist 1996b), and the development of innovative products which exploit electronic delivery channels. The important point about the impact of IT particularly, is that manufacturing industry underwent similarly dramatic changes approximately 10 years earlier than the banks. The future pace of change and scale of restructuring in the banking industry is therefore likely to increase until at least the year 2005.

The principal argument in this paper is that the bank environment is de-stabilised by the competitive forces of globalisation, de-regulation and information technology. This leads to significant and important changes in almost every bank product-market: new entrants, dis-intermediation, customer changes and innovation. The inevitable result from these changes is to shrink the size of bank markets, and, assuming that banks retain similar cost structures, their profitability declines. The changes to bank competition and concomitant reduction in the size of bank markets is encapsulated in the spiral of decline model. The strategic response of the banking industry has been varied but several patterns emerge: cost-cutting, mega-mergers, increased risk-taking for both traditional and fee based income, and automation.

Significant cost-cutting strategies are exemplified by the retail banks, particularly in the UK, but also in other European countries. It is an attempt to align the cost structures of incumbent banks with those of new entrants such as direct banking operations and in the UK, building societies. However it is questionable whether making the existing systems more efficient is a viable response in the long-term as new entrants and banking innovations continue to develop, further eroding the income streams of traditional banks. The mega-mergers of Chase Manhattan and Chemical, Mitsubishi and Bank of Tokyo, and Wells Fargo and First Interstate, represent a size strategy. That is, in response to external pressures, these banks have grown through mergers and/or acquisitions on the basis that the biggest banks will perform best in the new environment. Apart from achieving economies of scale, breadth and depth of product expertise on a global scale are often given as the logic for these mergers (The Economist 1996b, Waters 1995). Implicit in the mega-merger is that (a) size is important in bank marketing and (b) that the improvements achieved in the economies of scale will be greater than the cost of merging. These assumptions may be true but in other industries, particularly manufacturing, there has been a move away from vertically integrated organisations which the universal bank represents, and more attention focused on the importance of *strategic networks of companies* (e.g. see Nohria and Eccles 1992, Konsynski 1993, Wells 1996 and Lorenzoni 1996 for a broader discussion of the theoretical and strategic importance of market networks). The focus strategies outlined earlier are examples of replacing the vertically integrated universal bank with a value-chain composed of a network of different banks' processes.

The increased risk-taking by banks in an attempt to overcome declining markets has resulted in higher profits for some individual banks, but at an aggregate level, an increase in the number of bank failures and total risk (Gorton and Rosen 1995, Edwards and Mishkin 1995, The Economist 1996a). The increase in automation improves the performance of existing bank operations but it is unlikely that gradual improvements of legacy systems are sufficient to counter the threat of new entrants and dis-intermediation. New entrants into traditional banking markets is extremely important. This claim is easily supported when one considers the size, brand name, and global expertise in marketing of the new entrants: automotive, telecommunications and software companies. As more trade takes place electronically, the pressure on the banking system to provide real-time financial support to commercial

activities will increase. Innovations such as digital cash, direct access from companies and individuals to capital markets and JIT finance based on real-time transactions will become more attractive. The exponential decrease in the cost of technology and changes to the banking environment mean that the legacy systems and experience of traditional banks may not be as important as the information technology and marketing skills of new entrants.

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