

IT-Enabled Sophistication Banking

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Abstract - Globalization of financial markets resulting from both IT (particularly internet standards) and increasing homogeneity of regulation has strongly affected the environment, financial services companies are operating in. Given these changes on the market, innovation is not a choice, but a necessity to survive. Observable today, however, are defensive strategies and poor service quality. In this paper based on investments in trust relationships with customers we propose Sophistication (fit) Banking enabled by IT and qualified staff. While traditional markets are characterized by shrinking margins and declining shareholder values, which can easily be explained by considering the digital character of financial products, new intermediaries for customer-centered Sophistication (fit) Banking have the opportunity of becoming spiders in the web and increasing shareholder values constantly.

I. INTRODUCTION

The market for financial services is undergoing a major shift towards the end of the second millenium. It has seen a wave of mergers, competition has intensified and working patterns are changing dramatically. One main reason for this change has to do with the rise of information technology (IT) that enabled and accelerated these developments. In this setting it is more important than ever for incumbents to have the right strategy in order to generate an adequate value for their shareholders. The authors suggest and justify an IT enabled Sophistication Banking approach, which is illustrated in this paper.

The remainder of this paper is organized as follows. The mega-trends changing the environment of the firms operating in the financial services industry are described and the impacts of these mega-trends in this market are discussed (Section 2). Based on our research results of the last years and on our practical experience from projects with partners such as Advance Bank, Hypovereinsbank and Deutsche Bank, some predictions of future market developments are discussed and strategic options are identified on a qualitative level (Section 3). In Section 4 we justify why we think Sophistication Banking is a superior strategy and present an implementation design for it including detailed examples for the potential of the new

approach. The article concludes with a short summary in Section 5.

II. MEGA-TRENDS IN FINANCIAL SERVICES

When discussing about mega-trends today there is no doubt that there is one development that will have the most impact on the financial services industry in the next centuries. "It is a power that is revolutionizing equities trading, a power likely to spread into core investment banking, in the process stripping away the inefficiencies previously integral to the financial system." [1] It is the rise of IT, especially of the Internet and its multimedial and interactive service, the world wide web (WWW). The authors first of all see three outstanding reasons for this, namely the new quality in communication, the change in (working) life circumstances and the ongoing deregulation in many economic sectors. Let us look at these in more detail in the following paragraphs.

Picking-up the first reason, the Internet enables non-face-to-face communication not only adequate for „basic“ financial services like managing a current account or a stock order. It also supports complex consultations in order to generate high-level solutions for financial problems like real estate financing [2]. At the same time a huge number of people – everyone who is connected to the Internet – can be reached at nearly no costs. "The rapid emergence of universal standards for communication (is) allowing everybody to communicate with everybody else at essentially zero cost" [3]. So with the Internet the former diversity between richness and reach of communication has vanished (See Figure 1) [4]. Former

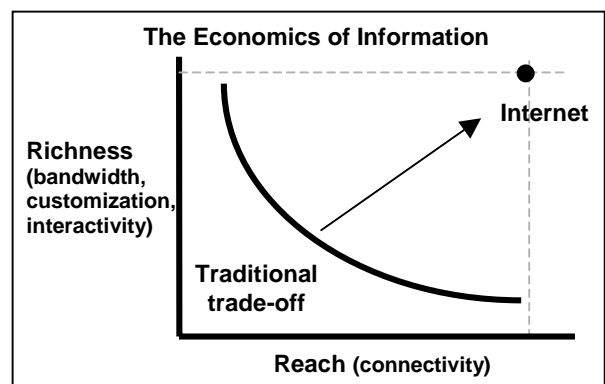


Figure 1

barriers of entry like a set of branches or a big sales force that took years to establish were forced down by this to a few months and to much less investment.

Consequently a lot of new intermediaries used their chance to establish purely web-based and thus relatively cheap and competitive services in the financial service business like the so-called discount-brokers, e.g. e-trade or Consors, or founded completely virtual banks, e.g. the United States netbank. A sharp rise in competition, especially in the field of online-brokerage where costs were cut dramatically is the impressive result of the new possibilities described above. Not only in this area but in many fields of banking, web-based solutions have been established and turn past investments of traditional banks into expensive liabilities and by this to competitive disadvantages. In addition these web-based companies reduce returns for traditional banks by targeting only special and interesting customer segments. This switching of customers to the web based companies is supported by an astonishing lack of quality in consultation by the established players [5].

But there is another development that is enabled by information technology. So it seems to be likely that the diminishing costs for communication “are forcing firms to become more flexible.” [6] Because now (after the defeat of the traditional economics of information) temporary organizations formed by specialized units that are connected by standardized (internet) communication channels have become possible. These virtual organizations are set together as parts of the former value chain creating new value networks by heavy use of (traditionally prohibitively expensive) communication (systems) and by this become able to better match the demand of the markets. The breakup of the hierarchical organizations brings firms both, opportunities and threats. It “foster(s) entrepreneurship and encourage(s) firms and individuals to exploit new opportunities and move into high value-added activities.” [7] On the one hand the creation of virtual organizations or “hyperarchies” [8] allows firms to react faster on market changes by recreating the virtual value networks. On the other hand there are impacts of this new organizational form on the ways of working and employment. There is a visible trend that a lot of the members of these virtual companies are freelancers [9] which are specialist in one or more parts of the value network. The use of IT now offers the opportunity to coordinate these specialized parts and form a “best-of-everything” value network and by this enables to provide an improved solution for customers. The possibility of the fast exchange of the players in this network also allows a more flexible adaptation to changing market and customer needs. However, the income of this group might vary in a wide range. On the low-end there might be a group that is not even able to afford health insurance [10]. On the high-end people will earn that much money that they are interested in large financial investments and possible tax savings. Still there is

one thing that all of these freelancers have in common: They are not living in the world of regular income and constant cash flows any longer. In combination this means that in the future there will be an increasing number of customers that do not fit the standardized financial products and services of today, which are normally designed to fit to constant monthly income streams. This trend towards “non-regular employment relationships” is confirmed empirically. Particularly in industrial countries, employment relationships that were hitherto considered regular, i.e. permanent full-time relationships in an employee status, are visibly becoming less significant in recent years [11]. For instance in Germany since 1991, there is a increase in self-employment of 557 thousand. Particularly noteworthy is the rise of (non agricultural) one-person-companies between 1994 and 1998 of 378 thousand [12]. Or for example the Bavarian and Saxonian Commission for Issues Concerning the Future assumes that if the development of the last two decades are projected forward, the ratio of “regular to non-regular employment relationships” in the year 2010 will no longer be two to one as it is here today, but may be one to one [13].

This trend towards an “income lifecycle” that is not corresponding to the income and asset growth of a lifetime typical after World War II is reinforced by another foreseeable development. The number of people who will inherit a lot of money from their ancestors is growing tremendously. For example in Germany the value of properties that will be shifted from one generation to the next will rise from 102 billion DM in 1987 to 415 billion DM in 2002. The average value thereby will increase from 199.100 DM in 1990 to 471.600 DM in 2002. About one third of the inheritances will exceed the value of 250.000 DM [14]. This means that there will be a lot of people facing the “problem” to decide at one time what to do with an amount of money they normally would have to work a long part of their life for. This also seems to indicate that there is a growing number of people who have a demand for financial services, that do not require constant income streams. Instead these people need sophisticated solutions that allow them to handle “unusual” amounts of money at one point in time.

Another development that is not enabled by information technology but has also great impact on the financial services sector is deregulation. By suspending the Glass-Steagall Act in 1999 the separation between commercial and investment-banking in the United States that was settled in 1933 has been abolished. In result the conditions for American financial services providers are now similar to the rest of the world. By this the entry in foreign markets for U.S. based companies as well as for the rest of the world in the U.S. is more likely and therefore competition will increase.

In summary, on the one hand the rapid development in modern information and communication technology,

especially the Internet, has the consequence of increasing competition in the financial services industry that is also supported by deregulation. On the other hand there is a growing number of people who have no demand for traditional financial solutions, because their income situation does not match to the assumption of periodical income streams. In consequence a lot of innovative products that cover the needs of the described group of customers should be observable in the near future. Hence, in the third section we will have a closer look on the current developments in the financial services industry and the strategic options for financial services firms.

III. STRATEGIC OPTIONS

Having discussed mega-trends of the financial services industry, we will now assess the strategic options for companies that operate in this dynamically changing business environment. In the end, it seems to come back to Porter [15]. The decision is whether to pursue to gain cost leadership or whether to differentiate the offered services from other competitors [16]. In the context of the booming Internet industries and the global information network, this has to be examined in more detail.

What we observe in the financial services industry is a splurge of mergers, mainly driven by the objective to lower costs and thus become more competitive in this global market [17]. Obviously, it is impossible to judge the success of a strategy upfront but the authors argue that merging is the wrong strategy basically because of two reasons.

- Firstly, it is a defensive reaction on market trends instead of an offensive action that influences and sets these trends.
- Secondly, in the long run cost leaders offering commodity products on net markets won't be able to generate shareholder value, because competition is driving prices and profit margins down [18].

Although the volume of mergers – especially in the financial services industry – has seen two record years in a row, there are in fact still lots of opportunities to combine the business of two or more financial services companies in order to cope with excess capacity. For instance, in the euro area the total number of credit institutions was 8,249 at the beginning of April 1999 [19] while many predictions claim that there is just place for a handful of players in the global battlefield. However, examining research about the success of mergers, there is an astonishingly consistent high number of failures. Though it is difficult to clearly define what a successful merger is, all studies – regardless of the chosen research method – show a failure rate well above 50% [20]. This makes a merger in such a dynamic environment a high-risk-venture instead of giving the new company some relief. Moreover, the best employees are busy merging the

company, that is, integrating the IT systems, training the employees in using the new systems, creating a new corporate identity and a shared vision, while the market is dynamically changing at a breathtaking pace. In addition, post-merger costs are often underestimated and the argument that bigger – merged – banks are safer than small ones is not necessarily true [21].

These disappointing results pose the question, why still so many financial services firms decide to merge. This might stay a miracle from a rationale point of view, especially since there is a choice: Differentiation. In the context of this article we mean by differentiation to become an innovative solution provider. The market for financial services is still dominated by a product and supply side view instead of a customer driven and solution oriented view. Because most financial services companies are organized around products, they have failed so far to fully leverage their relationships with customers and their superior knowledge of customers' lifecycle behavior.

In contrast to Porter's view that was based on the trade-off between flexibility and productivity, on net markets serving the mass market and pursuing differentiation are not mutually exclusive strategies [22]. Applying state of the art information technology in all business processes enables a company to pursue a hybrid strategy of mass customization – and the market for financial problems with innovative and financially sound solutions [23] is definitely not just a niche, but a mass market with enormous potential.

It is important to note the difference between a cost leader producing commodity banking products and a solution provider producing highly individualized and tailored solutions [24] to the customer. On the one hand, in the future the first one might not even have customer contact anymore and just serve as a “production bank” [25] for the solution provider delivering commodity banking products. In a competitive environment prices will be driven down to marginal costs. Obviously, banking products are digital products and their marginal costs are (close to) zero. Hence, we argue that in the long run most financial services companies pursuing a cost leader strategy will not be able to generate an adequate shareholder value. On the other hand, the solution provider (also: relationship manager) takes care of a highly valuable asset: The contact to the customer, that includes a lot of information about his preferences and objectives as well as his trust (See Figure 2). Information can be gathered, formalized and processed in order to achieve a win-win-situation for the customer as well as for the solution provider, since particularly tailored solutions can be offered by Data Warehouse and Data Mining techniques. It is vital for a solution provider to be as independent as possible from the “production banks”, since regulative, legal, institutional and other settings may change quickly. In result, the

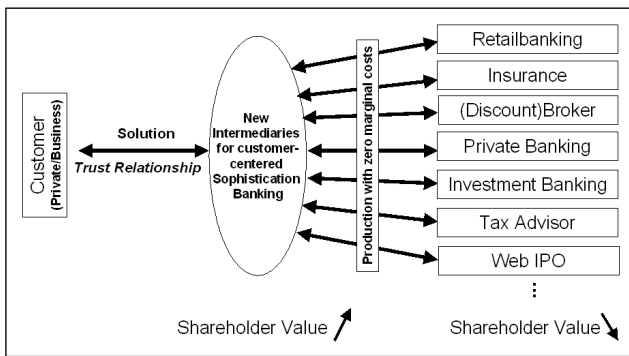


Figure 2

ingredients (i.e. products) of solutions may change at the same pace. These changes should not force the customer to switch to a new supplier, instead a sophisticated solution provider should be able to adjust its process of finding a solution and eventually find new cost leading “production banks” that deliver the needed products at the best price. How a relationship manager should leverage its customer relation best, will be discussed in the next section.

IV. IS IT-ENABLED SOPHISTICATION BANKING A SUPERIOR STRATEGY ?

As outlined above in the traditional financial services markets we observe poor quality of consultation and service (not only for retail customers, but also for high end customers in private (investor) banking [26] and for small/mid-size corporates), increasing customer willingness to switch banking affiliations and thus strong pressure on margins. At the same time financial services firms are facing increasing risk from (also IT-driven) continuously increasing volatile global markets. Thus according to Drucker (1999) [27] they only have two options, namely to either innovate or die.

So far, in addition to cost-oriented merger strategies discussed above banking firms on the marketing side have been trying to concentrate on „high net-worth individuals“. These are usually defined as having high income, high property or both. In many cases, for instance in the early years of Germany’s Advance Bank this strategy has failed due to low willingness of these high-end customers to switch banking affiliations. Thus for the entrant per capita acquisition costs were quite high. Other income/property based segmentation strategies have also failed due to the fact that (because of lack of consultation service) interesting customers could not be retained. In contrast, successful exceptions on the financial services markets such as MLP AG concentrate on potentially interesting customers such as students of business administration, computer science and engineering, invest heavily in winning them early and accompanying them along their (often freelancer) career with

increasingly sophisticated (and profit generating) financial products and services. Using IT as enabler and pursuing such a lifecycle-oriented [28] strategy of (mass-individualized [29]) sophistication banking seems promising to us for the following reasons:

- Particularly (potentially) interesting customers are often convenience-oriented and prefer (given a trust-relationship) financial services bundled by one sophistication supplier instead of spending their scarce time with shopping around and coordinating multiple suppliers.
- Financial services firms pursuing a strategy of investing in long-run trust relationships with (potentially) interesting customers are facing lower costs, because it is much cheaper to sell additional products to existing customers along their lifecycle instead of winning new interesting customers.
- Appropriately individualized bundles of financial services are usually advantageous for both the supplier and the customers for reasons of taxation and diversification as we have shown in a number of studies [30].

German/European banking firms are in a good starting position of establishing the necessary trust-relationships with their customers: Investigations such as CSC’s [31] show that customers are trusting them much more than, for instance, insurance companies. From the customer’s point of view such a trust-relationship is required because the customer cannot (or does not want to spend effort to) monitor the quality of financial products and services.

For mass individualization of financial services firms have to replace their traditional segmentation strategies. As figure 3 indicates such a segmentation approach (if at all) only fits a

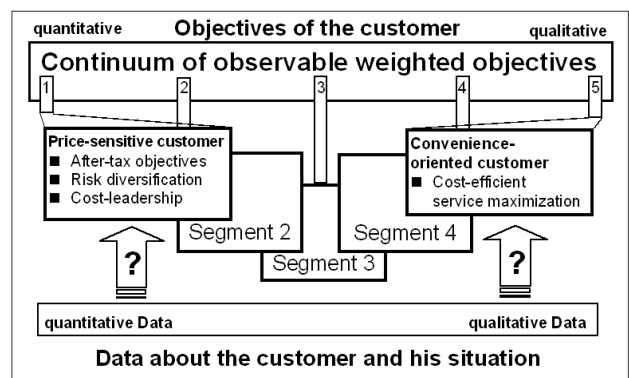


Figure 3

small part of the customers. IT allows (see figure 4) a much better approach:

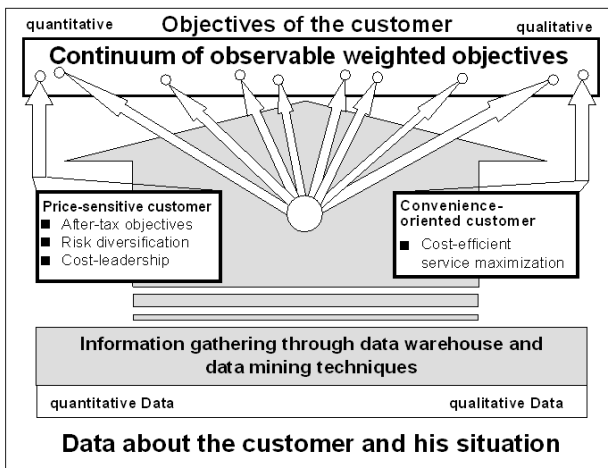


Figure 4

Using internet/intranet-technologies as integration platform for all the channels to the customer (see figure 5), relevant customer information can be obtained via Data-Warehouse- and Data-Mining-Technologies by analyzing both quantitative (hard) operational data and qualitative (soft) customer data e.g. from web tracking. Based on that IT application one-to-one-relationships can be established taking account of the specific (convex combination of) quantitative and qualitative customer objectives. In this area our research group is cooperating both with scientific partners from finance, information systems, computer science and economics in Augsburg and Nuernberg and with a leading German universal bank in Frankfurt.

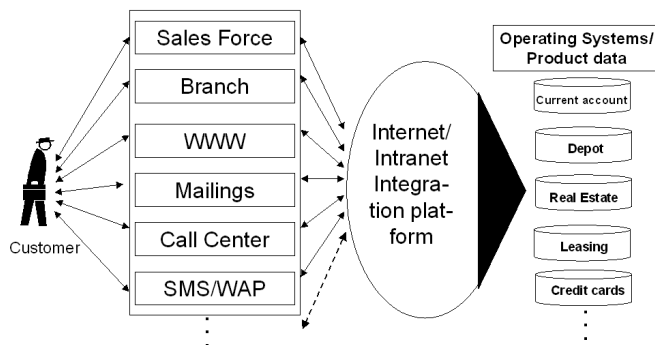


Figure 5

If the financial services firm succeeds in replacing usual segmentation strategies by a potential-oriented strategy ensuring that competence of its consultants fits to the customer, individualized sophisticated banking is feasible: for competent customers and complex financial problems along their lifecycle sophisticated solutions with substantial

advantages for both the customer and the financial intermediary can be provided.

For instance, in Buhl/Wolfersberger (1999) [32] we have shown that via sophisticated financial engineering the net present value of payments necessary for financing an office building of a small corporate compared to traditional financing can be reduced by some 70% via an appropriate combination of leasing with upfront one-time-payment, loan financing and zerobond investment. If instead of the zerobond a life insurance contract is employed and it is assumed that its present tax exemption holds in the future, a tax paradoxon can be constructed where the small corporate can use the office building for free. Of course such outstanding opportunities often do not last very long. Legal or institutional changes as well as reactions of competitors require to adapt quickly to changing market conditions. Customer-centered intermediaries can quickly react and reconfigure their value network by either dropping or picking up new providers of financial products – without affecting the trust-relationship to the customer.

For private banking customers we have shown in Buhl/Hinrichs/Satzger/Schneider (1999) [33] that the net present value of residential property financing can be reduced by some 30%. Briefly described, the financial engineering solution is constructed on the following observations and ideas: If the private banking customer finances his residential property traditionally, neither depreciations nor interest payments are tax-deductible in Germany. If, however, a leasing company is the (tax) owner of the house, first there are tax advantages from depreciation. In addition by optimizing the financial contracts between the leasing company and the customer additional advantages stemming from asymmetric taxation of both can be obtained. By simultaneous optimization of refinancing such businesses as described in Schneider/Buhl (1999) [34] the leasing company can gain additional advantages from either factoring of leasing payments or constructing asset-backed-securities from these future payments sold to a funds company. The latter case is particularly interesting if the private banking customer is purchasing such funds shares for his retirement plan: He finally „repurchases“ (part of) the depreciation of his own residential property. As a result the financial engineering solution has turned non tax-deductible payments into tax-deductible ones and provided considerable advantages for the customer, the leasing company, the fund and a refinancing banking firm. Such a solution is currently transferred into practical application also with a leading german universal bank and its subsidiaries.

While on traditional (mortgage financing) markets margins are driven to zero by competition, such individualized sophisticated solutions can generate substantial advantages. However, the pre-condition is a trust relationship with deep

knowledge about the customer and sophistication fit with respect to competence, consultation, products, services and appropriate usage of (multi-)channels. Based on that the sophistication banking provider can generate on the one hand much larger profit/shareholder value compared to traditional markets and on the other hand construct a network of brains with high-potential customers benefiting both the members of the network and the economy as a whole by solving better a number of problems being poorly (or not all) solved today in our society.

V. SUMMARY AND CONCLUSIONS

We have illustrated the mega-trends affecting the financial services industry and discussed strategic options for the upcoming globalized and volatile markets. We have argued and justified why cost-oriented strategies such as mergers/acquisitions are not beneficial in the long run; using IT and people instead concentrating on the customer's problems along the lifecycle and becoming a Sophistication Banking intermediary seems much more promising: Offering the appropriate channel, product, service and advice for each specific customer/problem combination is superior with respect to convenience, cost, tax and diversification advantages. Financial engineering combining IT and people based on long-term trust relationships with customers is a strong element to succeed in future markets turning the mega-trends from threats into business opportunities.

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