

Cluster 3 in 2004: Multi-Channel Banking

(Prof. Dr. Bernd Skiera)

1 Motivation

The aim of the Multi-Channel Banking Cluster is to provide research in the area of multi-channel management which should aid financial institutions to redesign their channel systems. The ultimate aim is to optimize the customer equity of our sponsors through our approach to multi-channel banking.

In the first year, we focussed on:

- The development of a **theoretical foundation**. The aim of this work package was to review the academic knowledge in Multi-Channel Management, to analyze the current state of MCM in the context of Banking and eFinance and to develop a general framework.
- A survey of practical implications of Multi-Channel Management. This was achieved by conducting various expert interviews and by developing a draft concept for an **MCM Expert Panel** consisting of multi-channel managers in the financial services industry (projects will be finalized in 01/04).
- Analyzing the **channel loyalty** of certain customer segments in banking. In other words, we tried to identify customer groups which demonstrate loyalty or affinity to certain sales channels.
- Identifying the implications of channel mix on the **Life Time Value** of **banking customers**. Based on data provided by a large German retail bank, we were able to isolate the profit contribution of the Internet as a sales channel for an organization.

Extending this work, in 2004 we increase the current focus on understanding the process of channel choice of banking customers and the profit implications of choosing a certain marketing channel mix. Moreover, we expand the scope of our research to multi-channel pricing.

The project Multi-Channel Banking 2004 will be structured in three components according to their logical flow. The channel choice research will study the banking **customer choice behavior** when being provided with the opportunity to choose among various channels. It analyzes what influences customers in their choices and allows to predict customers' choices under different channel structures.

This leads to the research of **revenue and cost implications**. The research on revenue implications will explore the revenue effects of selling through multiple channels. This includes in-depth analysis of the effects on customer loyalty and of cross selling opportunities. The work on cost implications will focus on the adequate method to distribute costs and estimate the costs incurred.

Retail banks can then start to design their **overall channel strategy**. They should decide how they want to use channels and pricing to mine attractive segments and to move unprofitable customers to less expensive channels or to the competition.

In 2004 and later in 2005, we will integrate and extend our research to bring these modules together into an integrated Multi-Channel Management model, supporting our partners in the financial industry to make better and more sustainable decisions than their competitors. The integrated Multi-Channel Management model will support the design and the continuous coordination of an optimal marketing channel mix.

2 Multi-Channel Banking Projects

2.1 Expert Panel

The current situation in Multi-Channel Management can be described as follows: most organizations are involved in establishing or are already trying to manage a multi-channel system. But as our

research indicates, none of these organizations can be described as best practice, nor as an organization without any problems in Multi-Channel Management. So far, sales channel managers have no institution to address which might provide some guidance in order to resolve the encountered problems.

The solution to this problem is to establish such an institution which provides answers to pressing issues of the multi-channel manager. For the eFinance Lab, there are several opportunities how to support and help organizations in solving their problems. One aim is to provide research in the area of multi-channel management which should aid organizations to redesign their channel systems. Another approach of the eFinance Lab in supporting organizations to solve their problems is the subsidiarity principle. The eFinance Lab helps multi-channel managers to help themselves. This can be achieved by offering an infrastructure, so managers can discuss certain issues and therefore help and learn from each other.

2.1.1: The first work package (WP) – already having started in 2003 – develops a concept for an expert panel. It is essential to determine the agenda, the circle of invitees, and the issues going to be discussed before announcing the start of the expert panel. (This work package has already been finalized in 2003.)

2.1.2: The first finance-oriented expert panel – the test run – has been scheduled for the end of January 2004. After its evaluation, the concept will be finished, invitation will be sent to the relevant multi-channel managers and further meetings will be conducted.

2.2 Banking Customer Survey

An integrated multi-channel management was until recently very limited in most industries. The lack of research in the area of customer channel choice is therefore not surprising. However, current trends indicate that the reliance on a single channel is going to be the exception rather than the rule in most industries. This trend towards a multi-channel environment necessitates an improved understanding of customer needs and preferences in order to be successful. First, it is crucial to know which role is played by the various marketing channels in the customer buying process (buying process-channel interaction). Second, it is important to understand the factors that lead customers to purchase certain products from one channel rather than from another (product-channel interaction).

We will therefore conduct a finance-oriented market research study to elicit the customer's stated preferences. This survey identifies which functionalities and products should be offered via which marketing channels. In addition, the survey allows to reveal the factors that influence customers' preferences, such as convenience, perceived risk or product complexity.

2.2.1: The aim of the first work package will be to get a first understanding of customer channel choices and customer banking habits. This knowledge will be gained by analysing several focus groups, in particular concerning the customer purchasing process, the channel choice process, factors influencing the channel choice process, and general banking habits such as channels, products, and services currently used.

2.2.2: Based on the knowledge gained through the focus groups, we will be able to design a customer survey, which will be conducted online as well as paper-based. This customer survey tests the hypotheses generated through the focus groups. The sample of the customer survey has to be sufficiently large in order to be able to generalize the findings for the German banking industry. The online survey might be conducted in cooperation with MSN or T-Online.

2.2.3: The third work package for the customer survey project will be the analysis of the gathered data by using multivariate methods. The results allow us to illustrate the optimal channel mix to meet the customer needs and preferences. Knowing the factors that influence the customer's channel choice allows to actively manage the customer's preferences and therefore the preferred channel mix. This allows to actively migrate customers between channels to further enhance their profitability.

2.2.4: The final work package will use the gained understanding of the customer behaviour and channel choice in order to develop a decision support system. This will be implemented in software to gain a tool for automated channel management decisions.

2.3 Financial Institutions Multi-Channel Management Benchmarking

Because of a multiplicity of channels currently available, financial institutions seeking to develop an effective multi-channel delivery strategy are faced with a confusing array of choices and operational challenges.

As a consequence, financial institutions need to re-think their sales structures and processes with the aim to build a more efficient and effective Multi-Channel Management.

Achieving the necessary improvements and changes can be accomplished by continuously monitoring one's performance and comparing it with the best organizations, adapting the best practices, and innovating to become world class (benchmarking). In other words, organizations which strive for their full potential have to continuously improve their business by learning from others.

- 2.3.1: The first work package will define the scope of the benchmarking study (this part will be already finished in 2003). The emphasis of the first benchmarking study will be on the costs incurred by multi-channel companies. Building on these results, we will identify the key metrics for the benchmarking study. It will be crucial to determine metrics which are available to all participants. On the other hand, the metrics have to cover the most important issues of cost allocation and costs incurred in the Multi-Channel Management. Moreover, we must define the exact way how these metrics have to be measured. This will ensure the comparability of the results of the various participating organizations.
- 2.3.2: Rather than merely measuring best performance, benchmarking focuses on functional dependencies on how to improve any given business process by discovering the specific practices responsible for high performance, understanding how these practices work, and adapting and applying them to an organization. Companies improve their performance by tailoring and incorporating the best practices into their own operations – not imitating but innovating.

2.4 Self-Selection in the Multi-Channel Banking

So far, most studies, which were designed to measure the profit contribution of online channels, have simply compared the average profitability of offline and online customers. The results always indicate a higher average profitability for online customers. The short-view conclusion of these findings was that customers become more profitable as soon as they start using the online channel. They therefore suggested to foster and push the online channel in order to increase the overall profitability of the customer base.

These simple profitability comparisons neglect one very important issue: where do the profitability differences come from? These studies never questioned causes of the higher profitability of online customers. They inferred that the higher average profitability of the customer is due to the impact of the online channel.

- 2.4.1: We will explore two possible sources of profit contribution of the online channel that are important to this industry: (1) self-selection of profitable customers towards the online channel and (2) profitability increase due to the usage of the online channel. There are explanations which support the hypothesis that the profitability differences of online and offline customers are due to a self-selection effect. But the same is true for the channel effect. One explanation for the self-selection effect might be unobservable customer characteristics that translate into differences in customer behavior and, ultimately, profitability. The hypothesis that convenience or additional product information may encourage incremental product purchases or more frequent transactions supports the channel effects theory. This first work package will provide a theoretical overview of the self-selection issue and the literature relevant for the solution of this problem.
- 2.4.2: Our analysis of empirical data will further attempt to distinguish between the profit contribution due to the channel effect and due to the self-selection effect. This can be achieved by decomposing the profit contribution of the online channel in customer specific and channel specific effects. One method to statistically decompose the profitability impact of the online channel is called matching. The matching approach compares actual behavior of an individual with the assessment about how this individual would have behaved, had she or he no access to the online channel. This comparison will allow to define the impact of the online channel on the profitability of the individual customer. If the profitability difference is not completely explained by

the channel effect, the remaining difference can be attributed to the self-selection effect. In the next step, it will be possible to attribute the self-selection effect to observed or unobserved heterogeneity of customers.

2.5 Realization of Cross-Selling Potentials in Banks

Defining the product which should be sold to a specific customer and deciding about the time, when to sell this product, is very challenging for organizations with a wide product portfolio and a large customer base. The first problem is to identify the products that could be sold or offered in a promotional activity. A typical company has several candidate products. Unfortunately, it is unable to target all of these products to the customers. A bank might therefore be interested in identifying the products which have the highest probability of being bought by the customers. Answering this question provides the bank with a list of all best selling products. Trying to sell the identified products to all customers can quickly become too time consuming and too expensive. It would be therefore easier to know which customers are the most likely to buy a certain product.

2.5.1: The first step is to determine the customers, who have a high likelihood to buy a specific product. This would allow to target a product to an individual customer, based on his or her needs. This can be achieved by applying statistical models to customer specific data. Such a model would provide the bank with purchase probabilities for customer-product combinations.

2.5.2: But when is the customer going to purchase the product? Especially in an industry such as the financial services industry, where high interpurchase times are no exception, it becomes essential to predict the potential time of purchase. It might be – for instance - that a customer has a very high likelihood to purchase a credit card as next product. But what if “next” means five years from now? Targeting such a customer right now would be premature. The second challenge of cross-selling is therefore to determine the purchase incidence timing. This can be achieved by combining a purchase incidence model with the existing statistical model. This combined model allows therefore to estimate the likelihood that a specific product is purchased by a certain customer within a predetermined time period. Based on this information it will then be possible to design promotional and cross-selling activities more efficiently.

2.6 Pricing in a Multi-Pricing Channel Environment

So far, channels have been considered to be distribution channels. We will now open our analysis to consider “pricing channels” as well. Pricing channels are defined as channels that allow to differently price consumers. Frequently, these new pricing opportunities are driven by new technologies such as the Internet or RFID-chips (radio frequency identification chips) which allow to record customer behaviour at a much lower cost. Two examples: Customers going to bank branches, hence the traditional channel, cannot be charged for every piece of information the financial advisor gives them. Therefore, customers are either charged by higher transaction fees or by the amount of time the financial advisor spends with them. The digital channel Internet, however, allows to measure every piece of information that has been given to the customer at very low costs. Therefore, online brokers such as comdirect started to charge for real-time information concerning stock prices (“trader-matrix”). Another example refers to the proposition of car insurance company Norwich Union (NU), part of Aviva, the biggest insurance group in the United Kingdom concerning the introduction of usage based insurance premiums. Instead of paying a fixed motor insurance premium under the traditional pricing channel, the new technology allows for calculation of more accurate individual premiums depending on how often, when and where people use their cars. Under the new pricing channel, drivers that use their car seldom on rural roads will be charged differently from people driving during the rush hour on urban roads or Saturday evenings. Hence, the implication of new technologies is that it allows banks and insurance companies as well as other companies to measure their customer behaviour at much lower (variable) costs so that it enables them with the opportunity to move from a “flat-rate” pricing schedule to a “pay-per-use” pricing schedule. Therefore, the aim of this project is to analyse in detail the new opportunities technology provides for pricing, especially “pay-per-use” pricing instead of “flat-rate” pricing.

In 2004, we will split up this research project into the following four parts:

2.6.1: Describe the technology that allows to implement new pricing, especially “pay-per-use” pricing schedules. We will particularly focus on technologies in the area of “ubiquitous computing”, also

called "pervasive computing", e.g., radio frequency identification chips, and would like to talk to experts to make that knowledge available for the financial service industry.

2.6.2: Based on that knowledge, we develop a white paper that outlines the eFinance Lab vision about how future pricing scenarios might look like.

2.6.3: Development of a case study. We would like to develop a case study to describe in detail what new technologies allow financial service companies to differentiate pricing and how consumers react. This case study should also examine privacy concerns by consumers in some detail.

2.6.4: Development of a software prototype tool "Price Prediction Model". We describe consumer usage behaviour under different pricing schedules, e.g. "pay-per-use" versus "flat rate" pricing and develop and prototype prediction models concerning consumer behaviour under different pricing scenarios.