

Bernd Skiera

**Project Proposal of Cluster III:
"Multi Channel Management"**

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Prof. Dr. Bernd Skiera, Lehrstuhl für Betriebswirtschaftslehre, insbesondere Electronic Commerce, Johann Wolfgang Goethe-Universität Frankfurt am Main, Mertonstr. 17, 60054 Frankfurt am Main, Tel. 069/798-22377, Fax: 069/798-28973, E-Mail: skiera@wiwi.uni-frankfurt.de, skiera@skiera.de, URL: <http://www.ecommerce.wiwi.uni-frankfurt.de/>, URL: <http://www.myecommerce.de>

1. Introduction

Which should be the preferred channel to deliver your products and services to the customer? Should you be using only one or multiple distribution channels? Should the sales strategy be tailored for specific customer segments? What are the financial implications of using online channels such as the internet? In the light of tight budgets and demanding revenue targets, questions like these are more urgent than ever.

Cluster III of the eFinance Lab under the lead of Professor Skiera focuses on Multi Channel Management (MCM) with the aim to deliver reliable answers to these pressing issues. In this context, Multi Channel Management is defined as the effective mix and the efficient management of multiple sales channels in order to maximize profits.

2. Three-Year Vision of the Project

The vision of the project "Multi Channel Management" over the next three years is to demonstrate how financial services companies should use their multiple sales channels. The goal is to develop, implement, and evaluate a set of Multi Channel Management solutions in order to generate substantial efficiency improvements. The charter of our cluster is thus to optimize the use of multiple sales channels and the deployment of the newly developed electronic channels.

Together with our tier one partners *Deutsche Bank*, *T-Systems*, *Microsoft* and *Siemens*, we will lay the foundation by analyzing existing problems arising in the area of Multi Channel Management. This will ensure that our research adds value to our tier one partners by resolving their specific Multi Channel Management issues.

Through extensive literature review and expert interviews we will examine all existing research initiatives in Multi Channel Management to identify the current academic knowledge and areas for further research. One of the first steps will be to examine the behavior of offline and online customers in the financial services industry. Their behavior across different stages of the transaction process and their motivators to shop online will be of particular interest. First insights will be gathered by analyzing customer data provided by our tier one partners and companies from unrelated industries. Based on these findings we will determine the cost and revenue implications of selling financial services online. The final stage of the project will develop the means and structures to motivate customers to behave in a way which is the most profitable for our tier one partners. This project agenda will ensure that the delivered results will be theoretically sound and yet applicable.

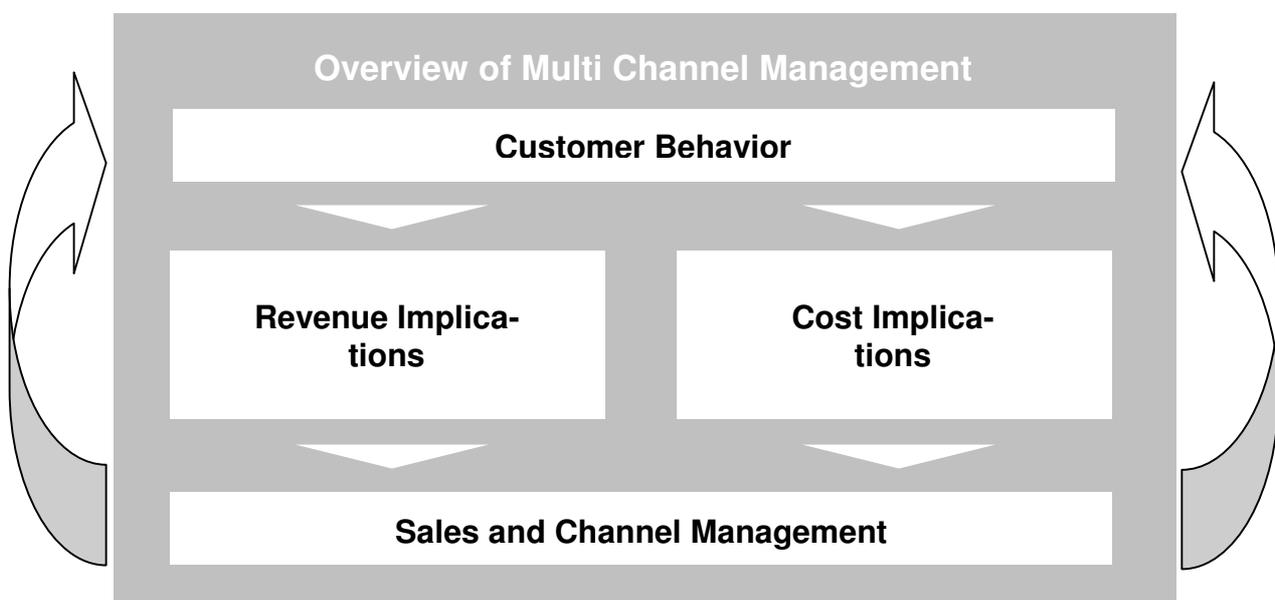
To work as closely as possible together with our tier one partners, an important goal is the strong collaboration by means of regular workshops or *jours fixes* and by involving corporate PhD students. To guarantee a high level of quality and external dissemination and to involve the international research community, we plan to discuss our work at international conferences and publish in top journals. In the first year we attempt to have at least one paper submitted to a scientific journal and another to a top conference.

3. Overview of the Work Packages (2003-2005)

For a more detailed descriptions of the work packages, see Section 7.

The Multi Channel Management cluster will be structured in five work packages according to their logical flow which is that the consumers first makes a choice concerning the channels that are going to be used, this decision influences revenues and costs associated with this customer, thus profits, and, taking the consumer's decision into account, an appropriate sales and channel management needs to be established. This logical flow is outlined in Figure 1. Each work package is related to and builds upon each other. **WP1 – Overview of Multi Channel Management**, is building the foundation for the Multi Channel Management project, as we are going to review and examine the existing research in MCM. It will enable us to define more clearly the focus of our research and the models which will be used. General concepts developed in this stage will be analyzed empirically according to their validity. **WP2 – Customer Behavior**, will study the 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. Based on the findings developed in the customer behavior work package, the revenue and cost implications of this customer behavior can be defined, thus profits might be determined. This leads to the work packages Revenue and Cost Implications. **WP3 - Revenue Implications**, will explore the revenue effects of selling through multiple channels. This includes in-depth analysis of the effects on customer loyalty, pricing and of up- and cross selling opportunities. **WP4 – Cost Implications**, will focus on the correct or most suitable method to distribute costs and estimate the costs incurred. Furthermore, it will identify the possibilities to reduce costs by using electronic channels and new technologies to sell financial products and services. After the revenue and cost implications of channel mix changes have been identified, this knowledge will be used to develop tools which will cause the desired customer behavior. These tools are going to be discussed in WP5.

Figure 1: Project Outline



WP5 – Sales and Channel Management, is highlighting strategic as well as operational aspects of Multi Channel Management. It will furthermore develop and test several incentive structures in order to direct and motivate customers to use and partners to support the appropriate channels. The implementation and the testing of these tools will cause a certain customer behavior. This fact links WP5 with WP2 and therefore closes a cycle. This cycle allows for continuous refinement and improvement of the research findings.

4. Time Schedule for 2003

It will be crucial in the first year for Cluster III to establish the theoretical foundation for further research. The project schedule for 2003 is therefore characterized by a focus on WP1 ("Overview of Multi Channel Management", WP3 ("Revenue Implications") and WP4 ("Cost Implications").

The extensive research conducted in WP1.1 to establish the theoretical foundation for Multi Channel Management will be summarized in form of a paper until the 1st of August. The design of WP1.2 will require us to collect data on the practical implications of MCM which will be finalized before the 1st of September. The collected data from WP1.1 and WP1.2 will be used in WP1.3 to develop models and concepts to explain the implications of MCM. A Jour Fix before the 1st of November and a work shop late this year will allow us to discuss and extend our research findings to finally publish a paper until the 31st of December.

WP3.1 is dealing with the decomposition of the revenues. Our analysis of this topic is going to be published in a paper until the 1st of October. WP3.4 is focusing on the loyalty implications of introducing an electronic sales channel. Data which has already been collected from a non-financial industry will provide us with the opportunity to present our findings at the INFORMS Marketing Science Conference in June this year. This conference visit will be followed by a Jour Fix discussing our first loyalty paper which is supposed to be finalized until the 1st of July. To transfer our findings to the financial services industry, it will be necessary as well to collect two data sets from distinct financial institutions. These data sets should contain information concerning individual customer behavior (e.g., transactions made, products bought), channels used by individual customers and characteristics of individual customers. They should be collected until the 1st of July and the 1st of October respectively. The first data set from the financial institutions has to be analyzed until the 1st of November and the second data set has to be explored before the 31st of December in order to be published in working papers that should be submitted to major journals. Note, however, that the collection of data is only partly under our control and requires a distinct collaboration with the tier one partners. Delays in the data collection process requires to delay the deadlines for presenting first results.

WP4.1 analyzing the cost allocation problem of multiple sales channels will be kicked off by writing a paper based on previous research until the 1st of July. This paper is going to be presented at a Jour Fix before the 1st of September. Further discussion can be initiated by a work shop which is going to be scheduled before the 15th of September. All dates and deliverables are also illustrated and summarized in the table below.

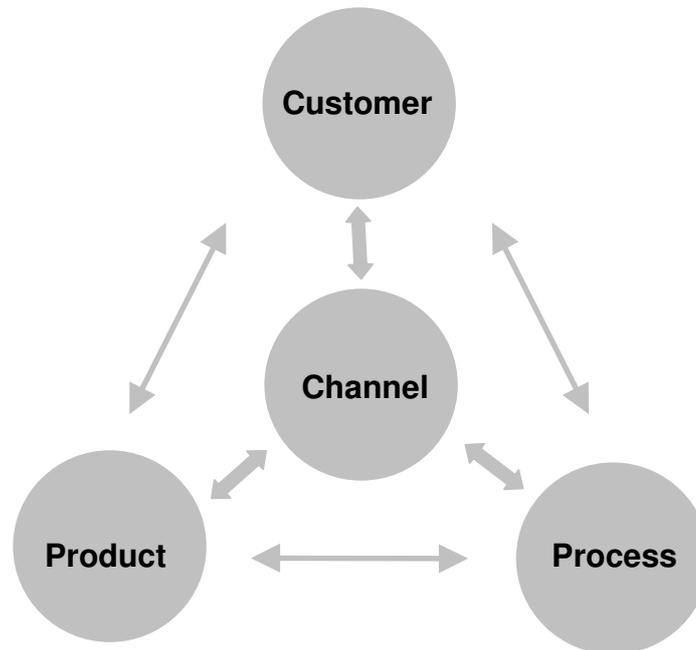
Schedule for 2003		Due Date	April	May	June	July	August	September	October	November	December
WP1.1	Theoretical Foundation										
	Paper	01.08.									
WP1.2	Practical Foundation										
	Data Collection	01.09.									
WP1.3	Concept Development & Testing										
	Jour Fix	01.11.									
	Paper	31.12.									
	Work Shop	31.12.									
WP3.1	Decomposition of Revenues										
	Paper	01.10.									
WP3.4	Loyalty										
	Presentation at INFORMS	01.07.									
	Paper (unrelated industry)	01.07.									
	Data Collection (first data set)	01.07.									
	Data Collection (second data set)	01.10.									
	Paper (Report on first data set)	01.11.									
	Paper (Report on second data set)	31.12.									
	Jour Fix	01.07.									
WP4.1	Cost Allocation										
	Paper	01.07.									
	Work Shop	15.09.									
	Jour Fix	01.09.									

5. Detailed Description of the Work Packages

WP1 – Overview of Multi Channel Management: The aim of this work package is to review the academic knowledge in Multi Channel Management, to analyze the current state of MCM in the business world and to develop a general framework.

One issue in the development of these concepts is the complexity of a multi channel system. Several factors can influence the right channel mix. The main influencers on the choice of channel are the product purchased, the stage of the transaction process, and the customer with all its characteristics. Customers have a general animosity or affection for online channels. In other words, specific customers will be more likely than others to use online channels. In addition, the choice of product will influence the choice of channel as well. Customers might be likely to manage their bank account online, but would never purchase a loan online. Finally, the stage of the transaction process has some influence on the choice of channel. Customers might for instance seek information on a selection of different deposit products by surfing on the website of the financial institution. But they might prefer to receive an in-depth face to face consultation from a financial advisor in one of the bank's branches. The actual account might then be opened by using again the internet. This shows that even the stage of the transaction process has an influence on the channel choice. These relationships are illustrated in Figure 2.

All these different factors stand in relation to each other and influence each other. These interdependencies create a very complex four dimensional system of relations which makes it challenging to develop general concepts for Multi Channel Management, thus providing the basis to perform excellent research with a high relevance for academia as well as practice.

Figure 2: Complexity of Multi Channel Management

WP1.1 – Theoretical Foundation: The beginning of the Multi Channel Management cluster will be characterized by extensive research to establish the theoretical foundation. The review of Multi Channel Management literature and of related issues will help to gain a better understanding of the issues, concepts, and solutions from an academic perspective. Interviews with experts and visits to the relevant conferences will be a further opportunity to receive first hand information from the top research institutions in Multi Channel Management.

WP1.2 – Practical Foundation: Contrasting to the purely academic research, it will be necessary to survey the practical implications of Multi Channel Management as well. We will therefore keep close contact to practitioners across various organizations and industries. This will be achieved by forming an MCM panel consisting of managers working at partner organizations and selective customers of these organizations. Periodical surveys of the panel, for example on a yearly basis, would allow us to describe the developments of MCM from a longer term perspective. These interviews could cover various topics, such as the stage of MCM implementation, the problems arising from MCM, solutions to these problems, the degree of implementation, and the perceived importance of MCM among businesses. An analysis of the data would also allow to transfer best demonstrated practices in MCM to our partner organizations.

WP1.3 – Concept Development and Testing: Based on the academic and practical research we will develop models which explain the implications of managing multiple sales channels on organizations and their customers. These concepts will first be evaluated and tested against data provided by our tier one partners or the efinance-tracker.

Methods and data to be used:

- Literature review
- Interviews with experts, managers and customers
- MCM Panel / Periodical Surveys
- efinance-tracker
- Statistical analysis of data (most likely via SAS)

WP2: Customer Behavior: Organizations always have an interest in identifying the factors which can be used to explain why customers use certain channels or purchase certain products. Every organization wants to know what appeals to their audience. Organizations using multiple sales channels want to improve their decision making in selecting the right channel mix for the right customers.

Customers make their decisions according to a specific process by using pre-determined criteria. WP2 will develop models which explain the decision making process of customers. These models will therefore be able to predict customer behavior and the reactions on changes on the channel mix. An understanding of the customer behavior and its influencing factors is crucial as it directly influences the revenue and the costs incurred. This model will be tested according to data from our tier one partners and in own empirical studies that analyse different approaches to explain customer choice behavior.

Methods and data to be used:

- Literature review
- Data from one of the tier one partners
- Own empirical study
- Statistical analysis of data (most likely via SAS, Limdep, Gauss)

WP3 – Revenue Implications: The goal of this WP is the development and evaluation of concepts for revenue improvements. In other words, WP3 tries to identify whether online channels and certain channel mixes can increase revenues. It will pinpoint as well the factors influencing the sales figures.

WP3.1 – Decomposition of Revenues: Revenues are in general determined by the number of products purchased and by the price paid for these products. This revenue can usually be increased by selling higher priced products, by selling more products, by increasing the number of purchases, thus by reducing the interpurchase time, or by increasing the customer life time.

This work package is focusing on the effects on these revenue drivers when using the internet as a sales channel. The first step of this work package will therefore be to propose a method to decompose sales into the different revenue increasing effects such as loyalty, cross- and up-selling. The goal is to develop a revenue function entailing and distinguishing between these influencing factors. This can be achieved by transferring research findings from the consumer goods market to the financial industry.

Departing from this basic revenue function, a complete model will be developed to predict the effects of changes in the channel mix on loyalty, cross- and

up-selling. This model will be able to determine the weight, the significance, and the impact of each factor on the revenue function.

Data provided by the tier one partners (e.g. *Deutsche Bank*, *Siemens*) will allow to test the revenue model for its validity and will furthermore deliver empirical results on the effects of the channel mix on revenue. These results can then be compared to research findings of the non-financial sector to gain further insights and to view the issue from another perspective.

In order to isolate the different effects of introducing an online channel on customer loyalty, cross-, and up-selling, it will be necessary to compare the behavior of online customers with the behavior of offline customers. An empirical study is a possibility to answer the question whether there are any direct effects of an online channel on customer behavior which leads to a greater margin between revenue and cost. One hypothesis might be for instance that convenience may encourage incremental product purchases or more frequent transaction activity.

Two distinct methodologies may help to answer this question. The first approach is to compare two groups of customers which are demographically heterogeneous following the matching sample principle which is also called the inter customer approach. In other words, online customers will be compared with offline customers which have similar demographic characteristics to identify differences in their behavior. The second method is called intra customer comparison and based on so called "intervention analysis". This method monitors customers over a certain period of time before and after the adoption of internet banking. It is therefore either possible to observe a change or no change in behavior of the individual customer when adopting the online channel.

WP3.2 – Up-Selling: Up-selling is defined as selling higher margin products. It will be of interest to analyze whether there is any potential to sell higher margin products by using an electronic channel. The two methodologies described before can be used as well in search for such a relationship. Analyzing the causes for up-selling improvements will allow to derive strategic and operational best practices to increase revenues for the entire customer base.

WP3.3 – Cross-Selling: Cross selling can be defined as selling products from an increasing number of product categories. Comparing off- and online sales data with the inter and the intra methodology will offer insights whether the internet can improve the revenue by cross-selling despite the lack of human interaction. WP3 will explore as well how financial institutions can leverage their e-business strategy to increase their cross-sell ratios.

WP3.4 – Loyalty: Making customers profitable depends on a host of factors. One of the most important ones is retention. Loyalty is so important as it has several effects on the profitability of a customer. This becomes obvious by defining customer loyalty. Customer loyalty is dependent on the customer life time, the number of purchases, and therefore the interpurchase time.

But the question is often whether an integrated multi channel strategy can increase customer loyalty. Methodological, this issue will be approached from various angles. The churn rate and the interpurchase time are going to be used as a basis of comparison.

WP3.5 – Multi Channel Pricing: In addition to determining the effects on customer behavior of offering multiple channels, it is helpful to examine the effect of offering different pricing structures. This work package could analyze the implications of differentiated pricing for the various channels or the necessary level of price reduction to motivate a customer to switch to another sales channel.

Questions like these will be answered by empirically testing the changes in behavior of customers after price changes. Similar to the observations of the implications of a multiple channel strategy, customers could be monitored using the inter and intra customer comparison methodology.

Methods and data to be used:

- Literature Review
- Expert Interviews
- Data from one or several tier one companies (one data set might come from a non-finance industry to compare the finance industry with related industries)
- Statistical analysis of data (most likely via SAS, Limdep, Gauss)

WP4 – Cost Implications: The aim of this WP to identify the cost implications of using multiple sales channels for financial institutions. The work package is entailing three sub work packages. The first one is focusing on the optimal allocation of cost to the multiple sales channels. The second work package is trying to determine the actual costs incurred by each sales channel. The last work package is analyzing the cost potentials of automating and integrating processes in the financial industry.

WP4.1 – Cost Allocation: Most organizations using multiple sales channels account for their sales cost separately for each sales channel. They know about the costs incurred by the branch network, the internet, and the call center. But customers usually use different means of communication within a customer buying cycle. Customers might for instance seek information about a product over the internet, get further consultation in a branch, do the transaction online, and terminate their contract in a branch again. For instance, the contribution of an online channel to the sales of a service, which is finally sold in a branch can generally not be calculated.

One solution to this problem is the cost allocation by customer touch points (CTP). Allocating costs to customer touch points allows to compare for each step of the customer buying cycle and for each sales channel the contribution towards the revenue generated and the cost incurred at this specific CTP. This cost allocation method, in respect to the customer touch points, will allow to optimize the cost of the sales strategy.

WP4.2 – Incurred Costs: After the key for the cost allocation has been determined, it is necessary as well to estimate the actual costs incurred by each customer touch point. This can be achieved by allocating all direct cost to the respective customer touch point. All overhead costs will then be allocated according to a key based on cost accounting theories.

The cost data to verify and test our allocation process will be provided by one of our tier one partners and will allow to define the most cost effective use of the multiple sales channels.

WP4.3 – Cost Reduction Potential: the final part of WP4 will identify the additional sources of cost cutting potential. This includes the lowering of operating costs by a further integration and automation of the transaction process between customer and back office functions or by substituting relatively fixed cost information technology assets for variable-cost human interaction. Cost reductions can further be achieved by shifting former unprofitable customers to self service online channels. This will increase the profitability of the entire customer base. Finally new technologies and software in sales management has the potential to cut costs in the financial industry. Possible cost reductions by introducing an electronic sales channel and new technologies will be quantified by this working package.

Methods and data to be used:

- Literature Review
- Expert Interviews
- MCM Panel surveys
- Data from one of the tier one partners

WP5 – Sales and Channel Management: The work package sales and channel management will focus on the strategic and operational implications of managing multiple sales channels. The primary objective is to develop the necessary incentive structures on the customer and as well on the employee side to ensure the right support or usage for the right sales channel. A further objective is the efficient mix of the various sales channels.

WP5.1 – Channel Conflict: Channel conflict is not a new phenomenon that was created by the internet revolution. To the contrary, channel conflict is in existence since businesses use multiple sales channels. Channel conflict is defined as a situation in which one channel member perceives another channel member to be engaged in behavior that prevents or impedes it from achieving its goals. A direct sales force is therefore competing with a distributor. But at the same time a financial advisor is in competition with an “automated sales” approach such as the internet.

The goals of a financial advisor are usually perceived as being not compatible with the goals of implementing an electronic sales channel. The electronic channel is installed to reduce costs by automating the sales process and to reduce human resources cost. The financial advisor on the other hand, has the aim to not become dispensable. A further cause for conflict is the compen-

sation. Financial advisors will usually only receive incentives by selling a product and not by directing or referring customers to an online channel.

This makes it necessary to restructure the incentive system of businesses, to motivate the employees to behave in the most profitable way for the organization and to reduce conflicts. The conflict management work package tries therefore to determine the right incentives and compensation structures to secure the support of the employees for the sales strategy and to guarantee the most effective use of the multiple sales channels.

Interviews with financial advisors and experts in the area of employee compensation will allow to develop the appropriate concepts to design an individual incentive structure. Even the Multi Channel Management panel can discuss and answer questions in relation to this issue.

WP5.2 – Customer Motivation: Not only employees have to be motivated to support a specific sales channel. Also customers have to be motivated by incentives to use the appropriate channel. Customer surveys will allow to isolate the factors which significantly influence the channel choice of a customer. These decision drivers can then be used to design the appropriate incentive structure for the different customer segments.

WP5.3 – Channel Mix Optimization: The final aim of cluster III is to define the optimal channel mix for each customer or at least for each customer segment. Optimizing this channel mix can be achieved by designing an optimization model. A simulation study could use revenue and costs as the necessary criteria by incorporating the research findings of the cost and revenue work packages. Empirical data provided by a tier one partner could be the fundament for a conventional normative model which selects a sales strategy to maximize profits.

Methods and data to be used:

- Customer Surveys
- MCM Panel Surveys
- Financial Advisor Surveys
- Data from one of the tier one partners
- Development of a decision support system
- Conduction of a simulation study