

Essays on Personalization in Multichannel Financial Services

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Abstract

The proliferation of information and communication technologies (ICT) has transformed the way consumers interact with service providers. This dissertation focuses on understanding this phenomenon in the financial services context. The perceptions and behavior of consumers are the main interest; however, the voice of the financial service providers (FSPs) is also heard. The main research phenomena are multichannel consumer behavior and personalization of service and communication. The research is conducted in two financial contexts: the first two essays address wealth management services and the last two investigations are carried out in the online banking context. One of the essays presents a new conceptualization of personalization. The dissertation draws on the interdisciplinary service science approach, and can be positioned at the intersection of information systems, marketing and consumer behavior research. Both qualitative and quantitative methods are used in order to obtain a comprehensive picture of the complex phenomenon.

The qualitative investigation into the interaction between FSPs and customers reveals that trust and involvement are important determinants of customer behavior in the financial markets. Furthermore, different facets of trust are important for consumers and financial experts. The results of a quantitative study confirm that consumers' multichannel use is a norm rather than an exception in the wealth management context. A link is made between the channel and consumer characteristics, and the preference of using either predominantly electronic service or predominantly personal service. There are statistically significant differences between the consumer groups with regard to their demographic profiles, asset distributions and perspectives on several aspects concerning the relationship with the FSP. In addition, there is an association with the lower perceived relationship between the customer and the FSP and an increased preference for electronic service delivery.

Furthermore, a new conceptualization of personalization based on literature review and research profiling is presented. When communication between the FSP and customers is studied, different channels and messages with different types of personalization are suggested to bank consumers. Some channels are considered as improper for bank marketing whereas traditional direct mail is found to be suitable for general messages. E-mail functionality embedded in the online bank is considered to be the best approach for messages containing self-referent information. In general, the type of promotional message that is perceived to be the most acceptable in the online banking context is a preference-personalized informative message. The study is elaborated upon through experiments in online bank. The results uncover that personalized messages are attended to more than general messages. Personalization appears to be a worthwhile endeavor, even in goal-directed services.

This dissertation contributes to the understanding of the multichannel behavior of consumers in the financial services context, and the acceptability of personalized promotional messages, and personalized wealth management services in general.

Keywords: financial services, personalization, multichannel, relationship, consumer research

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List of the Original Essays

- Essay 1 Anne Sunikka, Liisa Peura-Kapanen and Anu Raijas (2010): Empirical Investigation into the Multi-faceted Trust in the Wealth Management Context. *International Journal of Bank Marketing*, 28 (1):65-81
- Essay 2 Anne Sunikka (2009) Predominantly electronic or personal service delivery? A case in the wealth management context. *Proceedings of the 17th European Conference on Information Systems*. June 8 – 10, Verona, Italy.
- Essay 3 Anne Sunikka and Johanna Bragge (2009) Personalization and Mass-Customization in the Research Literature. *The 5th World Conference on Mass Customization & Personalization*. October 4 – 8, Helsinki, Finland.
(A revised version of this paper has been submitted to an international journal)
- Essay 4 Anne Sunikka and Johanna Bragge (2009) Promotional Messages in the Multichannel Banking Context. Attractive or Annoying? *Journal of Financial Services Marketing*. 14: 245-263
- Essay 5 Johanna Bragge, Henrik Kallio and Anne Sunikka (2008) Personalized Marketing Messages in an Online Banking Context: Does Anybody Notice? *Proceedings of the 16th European Conference on Information Systems*. June 9 – 11, Galway, Ireland.
(A revised version of this paper has been submitted to an international journal)

1. Introduction

The 21st century has been marked with the proliferation of communication and data. Companies have the technology and tools to benefit from customer-related data and data from their internal and external environment. When the increased quantities and depth of customer data is combined with advanced mathematical algorithms and dynamic modeling the data are refined into information. Based on this real-time information, companies are able to dynamically segment customers, and attach value and risk measurements to them. But are customers willing to be objects of more personalized messages and service or do they want to be in control of information search and choices themselves?

The development and proliferation of information and communication technologies (ICT), the internet in particular, has changed the way in which companies and service providers interact with consumers and customers (Hoffman and Novak, 1996; Stewart and Pavlou, 2002). Previously, information search and traditional advertising through mass media were the dominant ways for consumers to find out about new services and products (Stigler, 1962). According to the “push approach”, the marketer tries to reach customers in order to persuade them with suitable messages. While the push approach is still appropriate for some occasions, non-push contacts, that is, a “pull approach” in which the consumer is an active initiator of contacts, is becoming increasingly important for companies and consumers (Shankar and Malhotra, 2006, Stewart and Pavlou, 2002). The pull approach is not just a marketing approach, but it can be applied to manufacturing and operations management in general (Hagel and Brown, 2005).

Even push marketing has been renewed through the use of ICT (information and communication technologies); making real-time personalized marketing communication possible, across multiple media and channels. If customers trust their service providers, they are willing to disclose information about themselves, and companies will be able to offer more personalized communication and services that are better suited to the wishes of consumers. When consumers receive more accurate and personalized information, the relationship with the service provider will intensify.

The popular press and several researchers (e.g. Harrison et al., 2006; Newholm et al., 2006; Ouschan et al., 2006; Rezabakhsh et al., 2006; Wathieu et al., 2002) propose that the internet has empowered consumers to communicate with companies and other consumers in their own terms. Search engine marketing that integrates consumer search

with the advertising messages of companies has increased many-fold. Consumers are influenced by opinions, reviews and discussions of other consumers. The communication and interaction landscape seems to have been profoundly transformed.

New ways of interacting occur in multichannel environments. Consumers require and use information and services from multiple sources and channels. Office visits and contact by telephone are considered as “traditional channels”, and are preferred by some consumers as the most suitable interaction channels. However, the traditional channels are nowadays complemented with electronic channels, either through simple self-service applications or more complicated platforms that provide spaces for comprehensive services and for exchanging ideas, opinions, and reviews, either with suppliers or in peer-to-peer relations. In addition, mobile applications and campaigns are typically linked with messages and campaigns that are implemented simultaneously in several channels. Most channels offer the possibility for personalization, thus making the experience more meaningful to consumers. Both research community and business practitioners are enthusiastic about the potential offered by personalization and customization (e.g. Gilmore and Pine, 1997; Kasanoff, 2009, Pine, 1993). The reason for studying multichannel service delivery and personalization simultaneously derives from the fact that multichannel environment offers a new and varied platform for more accurate and affordable personalization of offering. Thus, I see the possibility to deliver services through multiple channels as an enabler and trigger for modern personalization.

These issues were the emerging phenomena that influenced me when I started my doctoral studies in 2005. At first my interest was directed to knowledge management and usability, and later to the impact of ICT on the information search behavior of consumers. I did not originally set out to examine the financial industry even though I had over ten years' working experience in the field. However, financial companies were active in the research projects in which I participated as a researcher, and I automatically self-selected issues relevant to the financial sector as topics for my research. The financial service context became quite naturally the context of my research. I was interested in exploring the multichannel nature of financial service delivery, especially when relatively complicated services are concerned. In addition, the impact of personalization on service and communication efficiency was an interesting and relevant research area. Thus the two main research themes – personalization and multichannel service delivery - had been established.

A less personal reason for choosing the financial service sector as the context for investigation is that financial service providers have been pioneers in offering integrated services to customers, and there is ample data on which to draw. Other lines of business, for example, electronic health services and electronic government are equally interesting research contexts but empirical data was less available from these contexts. Furthermore, there are several practitioners active in implementing new electronic services relevant to financial affairs. My research is thus relevant both to the academic community and to the practice.

1.1 Research Context: Financial Services

Financial service sector, being at the forefront of digitalization, is a fruitful area of research, and several disciplines have been active in researching financial services, including marketing (Joseph et al., 2005; McKechnie et al., 2006; O'Loughlin and Szmigin, 2006), information system sciences (IS) (Cooper et al. 2002; Malhotra and Malhotra, 2006; Terri et al., 2004), and production and operations management research (Apte and Vepsäläinen, 1993; Huete and Roth, 1988; Tinnilä and Vepsäläinen, 1995; Tinnilä, 2010). In Finland, financial market institutions include banks and banking groups, mortgage banks, finance houses, credit card companies, special credit institutions, private equity investment firms, securities market participants and insurance institutions. Almost all banks active in Finland offer insurance and investment services either through their own network or through collaboration agreements with external providers. Typical for Finnish banks are the efficiency of payment traffic and the use of bank technology. One of the drivers of bank efficiency is the automation of banking activities and an emphasis on self-service. The role of the branch offices has diminished and attempts have been made to transform branches into places where special service is offered. Since the Finnish financial sector is technologically advanced, the Finnish trends could be used as a leading edge example to other countries. Naturally, attention has to be paid to the characteristics of each national market.

The financial service sector is essential for the well-functioning of the economy, of which we were reminded during the global financial crisis that started in 2008. In addition, the financial service sector is important for the everyday well-being of consumers because it provides services for protection of the present and the future, and makes exchanges in

different markets possible.

In this dissertation two empirical sub-contexts of financial services are examined: 1. *wealth management*, interpreted broadly as asset and liability management, and 2. *online banking*. Wealth management is commonly regarded as a service that is best conducted in personal encounters. However, electronic channels have increasingly been accepted as delivery channels even for wealth management services. In the online banking context, the focus of the research is not on any particular service or product but on the delivery channel, the internet. Most of the Finns (75 %) pay their bills predominantly through online bank, and four percentage of Finns use online bank occasionally (Lintula, 2009).

The financial services sector is perceived as a line of business in which the relationships between the financial service provider (FSP) and customer are long-term and relational rather than sporadic (e.g. Chiu et al., 2005; Colgate and Stewart, 2005; Johns and Perrot, 2008). In addition, contracts govern the relationship between the FSP and the customer. Harrison (2003) listed the characteristics of financial services as follows: high intangibility, information asymmetries between FSPs and consumers, and a heavy reliance on the credence qualities of products and services that can lead to uncertainty in decision-making concerning financial issues. The financial service industry is said to be a trust-business – trust is governed, sold and marketed. Consumers' trust in FSPs, that is, in companies, advisors, channels, products and services, reduces uncertainty and the perceived risks attached to financial decision-making (Dimitriadis and Kyrezis, 2008; Ennew and Sekhon, 2007; Grabner-Kräuter and Faullant, 2008; Heffernan et al., 2008).

The complexity of financial services is emphasized as the reason for the need for personal encounters. However, there are a multitude of services under the financial services umbrella. Wealth management services can be perceived as complicated by customers, but there are also fairly simple applications; for example, withdrawing money from an ATM, or paying bills at an online bank. These latter services are used by the majority of the citizens (Statistics Finland, 2008).

The marketing and IS research streams examine the financial service industry with different theoretical lenses and empirical interests. In marketing, the main focus of financial services research has been on relatively simple services in the retail banking context (e.g. Ball et al., 2006; Eisingerich and Bell, 2007; O'Loughlin and Szmigin, 2006). Lately, the adoption of online banking and the impact of the adoption decisions on the satisfaction and loyalty of customers have been examined (e.g. Colgate and Smith, 2005; Herington and

Weaven, 2007; McKechnie et al., 2006). IS research has focused on the adoption decisions of online banking (e.g. Tan and Teo, 2000; Pikkarainen et al., 2004). However, the wealth management context and the way consumers perceive their interaction with the financial service provider and how they want to be active in the financial context is a rather under-researched area (with the exceptions of e.g. Balasubramanian et al., 2003; Ding et al., 2007; Falk et al., 2008).

1.2 Background of the Study

This dissertation offers different perspectives to the interaction and relationship between FSPs and consumers in the financial services context, and draws on the inter-disciplinary service science approach (Bitner and Brown, 2006; Sheehan, 2006). The main influential disciplines that my dissertation draws from are information systems science (IS), marketing and consumer behavior research. Interactive services are defined by Bolton and Saxen-lyer (2009) as services that have some form of customer – firm interaction in an environment characterized by any level of technology. In their matrix (ibid.), with dimensions representing the level of technology and the level of customer participation in the service, online banking is used as an example of the highly interactive service quadrant, characterized by a *high level of technology* in the creation and delivery of the service and a *high level of customer participation*. Wealth management services can be considered as falling into the same quadrant.

Both of the two main research topics of this dissertation - multichannel consumer behavior and personalization - have emerged fairly recently, and both offer promising opportunities, especially for service delivery and marketing. Multichannel operations offer synergies, as they can result in an increased customer base, added revenue, and higher market share (Berman and Thelen, 2004). The benefits of personalization are also assumed to be many for both marketers and customers. Customized products, services and communication are believed to attract customer attention and foster customer loyalty and lock-in (Ansari and Mela, 2003), and serve as protection against the commoditization of the offering (Wind and Rangaswamy, 2001).

The proliferation of ICT offers challenges and opportunities for both research and practice since new ways of delivering services; giving voice to consumers and reaching consumers are being developed. In addition to traditional consumer channels (or touch points),

several electronic means of bringing services and products to consumers (e.g. online, mobile, ATM) have been implemented. The new service delivery channels do not totally cannibalize the traditional channels but several channels co-exist simultaneously. It is challenging for the service providers to control the large variety of channels, offer integrated communication and high quality service through multiple channels and take benefits of the strengths of each channel. It is also challenging for consumers to find relevant information and reliable sources of information in the overflow of service offerings.

1.3 Objectives, Structure and Scope of the Study

The overall goal of my dissertation is to contribute to the understanding of the customers' multichannel preferences and usage in the financial service context, and especially when services and communication are personalized. Several methods and theoretical lenses are used in the examination of the phenomena that are presented in five essays. The main research topics are multichannel consumer behavior and personalization of communication in electronic channels, in particular in online banking. The connecting element of the studies is the service context; services in the financial industry. The following figure (Figure 1) presents an overview of the topics of the dissertation and the numbers of the essays in which the topics are examined.

Essays one, two and four examine personalization and multichannel service delivery. Essay one emphasizes the salience of trust in the FSP-customer interaction, and essay two focuses on customers' multichannel preferences in the wealth management context, whereas essay four examines personalized messages in the multichannel context. Essay three is a conceptual paper on personalization and essay five presents the results of experiments on personalized messages in an online bank.

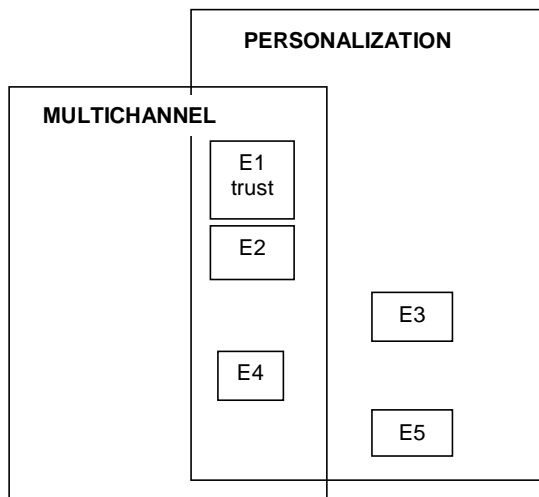


Figure 1: Topics and linkages of the essays of this dissertation

The main research question that ties together the essays presented in this dissertation is:

How is ICT used in the interaction between financial service providers and their customers?

In order to obtain the answer to the main research question and to understand and examine the financial field more broadly, more detailed research questions are presented below. These are answered in five separate research papers.

It is important for service providers to understand what features of service and relationship are appreciated by consumers. In Finland, wealth management is expected to be the next growth area for financial service providers, and more relevant for an increasing number of consumers. Even though the Finnish financial markets are among the pioneers in the use of technology and the standardization of everyday financial services, markets are still relatively underdeveloped when compared with the multitude of wealth management services and service providers found, for example, in the USA and UK. The first essay focuses on understanding what features differentiate the opinions of financial experts on how consumers perceive wealth and wealth management, and the actual opinions of consumers. The methods used are qualitative; consumer focus group discussions and expert interviews with the representatives of the FSP. The first essay answers the

question:

RQ1. *What mechanisms influence consumers' behavior in the investment context?*

The second essay continues in the wealth management context, and examines in more detail the association between channel use and customers' perceptions about the strength of the relationship between the FSP and the customer. In prior research, there have been conflicting results about the role of electronic channels: they may enhance the feeling of relationship between the consumer and the service provider, or they may shatter the relationship since the personal touch is missing. The method of this inquiry is a customer survey among the customers of a FSP. The second essay answers the question:

RQ2. *What factors impact the preferences for electronic and personal service channels in the wealth management context?*

The third essay introduces a new conceptualization of personalization based on academic literature. This essay provides definitions and examines the concept of personalization, which is the main research interest in the fourth and fifth essays. The third essay answers the question:

RQ3. *What constitutes personalization, and how it differs from mass-customization?*

The data for the fourth essay is collected by electronic focus group interviews and the main themes of the study are personalization and communication through multiple channels. Customers of a financial conglomerate participate in the study and share their opinions and views about bank marketing in general, and personalization in the online banking context, in particular. The fourth essay responds to the question:

RQ4. *How do customers perceive personalized promotional messages delivered through different channels?*

The fifth paper continues with the experiments relating to personalization in an online bank and answers the question:

RQ5. *How effective are personalized messages compared to general messages in the goal-directed online bank?*

The scope of this dissertation excludes B2B context, and industry level analysis, and focuses on B2C contacts. The perspective of this dissertation is not of a technical nature but draws mostly on literature on marketing and IS. There are no detailed descriptions on financial instruments in this study, but the focus is on interaction, and perceptions and

behavior of consumers and representatives of a FSP. The following table (Table 1) presents the titles, research questions, methods of inquiry, theoretical frames, main results and outlets of each essay.

Table 1: Summary of the essays contributing to the dissertation

Titles of the Essays	Research Questions	Methods	Theories	Results	Outlets
Essay 1: Empirical Investigation into the Multi-faceted Trust in the Wealth Management Context	RQ1: What mechanisms influence consumers' behavior in the investment context?	Focus groups, 6 groups, in total 33 customers 11 expert interviews 2007 and 2008	TPB Trust	1) Different facets of trust are important for consumers and financial experts. 2) Consumers are divided into four groups along trust and involvement dimensions.	International Journal of Bank Marketing, 28(1) 2010, 65-81
Essay 2: Predominantly Electronic or Personal Service Delivery. A Case in the Wealth Management Context	RQ2: What factors impact the preferences for electronic and personal service channels in the wealth management context?	Questionnaire (N = 309) spring 2008	Modified TAM	1) Personal and electronic service customers differ. 2) There is an association between lower perceived relationship and increased preference for electronic channels.	ECIS, 2009
Essay 3: Personalization and Mass-Customization in the Research Literature	RQ3: What constitutes personalization, and how it differs from mass-customization?	Comprehensive literature review and research profiling Electronic search spring 2009		1) Personalization and mass-customization research have been distinctly different research streams, but have been approaching each other.	MCPC, 2009
Essay 4: Promotional Messages in the Multichannel Banking Context: Attractive or annoying?	RQ4: How do customers perceive personalized promotional messages delivered through different channels?	Computer-aided electronic focus groups 4 groups, in total 53 customers autumn 2006	Consumer mindset ELM	1) The type of personalization influences the customers' preferences for channels. 2) In online banking, the accepted messages have informative and preference-matching content.	Journal of Financial Services Marketing, 14, 2009, 245-263
Essay 5: Personalized Marketing Messages in an Online Banking Context: Does anybody Notice?	RQ 5: How effective are personalized messages compared to general messages in the goal-directed online bank?	Click-stream analysis of three online bank experiments (N=874) 2006-2007	ELM Information processing	1) Personalized messages are attended to more than general messages, even in the goal-directed online banking context.	ECIS, 2008

2. Key Concepts and Theoretical Frameworks

This dissertation examines the role that ICT plays in the customer - service provider interaction in the financial service sector. ICT is an umbrella term that includes any communication device, application or channel that can be used as a means of interaction.

In the marketing discipline, interaction is a term originally coined in the business-to-business and industrial marketing context (Håkanson, 1982). A general definition perceives interaction as a mutual or reciprocal action where two or more parties have an effect upon one another. According to Grönroos (2009, 14) "Interaction in business context means that two or more parties are in contact with each other for a commercial reason, and in these contacts they have opportunities to actively initiate and perform actions, through which the other parties' processes or practices are influenced." Interaction can take place face-to-face, between a customer and systems, or between infrastructures mediated by IT or mobile technologies (ibid.). Grönroos (2009) claims that if there are no interactions between the firm and the customer, no value co-creation is possible (ibid.). In this dissertation interaction includes all the service encounters that the company has with the customer, thus encompassing both the communication and activity dimensions of both customers and service providers.

The delivery of financial services consists of differing combinations of personal and electronic encounters. The multichannel nature of service delivery is examined throughout this dissertation. In addition, the design of electronic service demands the interplay between service standardization and service personalization. Service modularity enables standardization, and standardization is essential for the well-functioning and efficient conduct of business. Even though standardization is important, this dissertation focuses on personalization of services.

The terms customer and consumer are used interchangeably in the dissertation. According to a common definition, a consumer is regarded as a person who consumes, and a customer is the person who pays for the product or service. In this dissertation, however, the term customer is used when the research subject is a genuine customer of the company; otherwise the term consumer is used. In all but the first empirical studies, the research subjects were customers of the company (essays 2, 4 and 5); the term customer was thus used in these studies. Terms service and services are also used interchangeably even though "service" is perceived as a process and "services" as a product according to

the service-dominant logic (Vargo and Lusch, 2008).

This dissertation comprises of five essays, each based on its own dataset. Several frameworks and theories were helpful in building the research models and interpreting the results of the empirical data. In the following, I briefly review the relevant concepts and frameworks.

2.1 Key Concepts

2.1.1 Service

In this section, three views of perceiving services are presented. In the early period of service marketing the differences between services and goods were emphasized (Zeithaml et al., 1985). The service characteristics were known as IHAP, representing the intangibility, heterogeneity, inseparability and perishability of services. Services were thus defined in terms of what goods and products are not.

1. *Intangibility* refers to aspects of services such as ideas, concepts and processes that are physically not touchable. Intangibility makes testing and comparing services before purchase difficult since services do not contain many search attributes (Nelson, 1970). Rather, consumers have to experience the services in order to ascertain the quality.
2. *Heterogeneity* refers to the relative difficulty or inability to standardize service outcomes or processes. This has often been attributed to the personality traits of both service employees and customers. In addition, consumers evaluate services based on their individual expectations of the service.
3. *Inseparability* of services refers to the fact that services are produced and consumed simultaneously, and cannot be stored. Consumer participation is essential since services cannot start if the consumer is not present. However, not all services are fully produced in the presence of the customer, one example of this is insurance claims handling.
4. Services are *perishable*, they cannot be stored; for example a flight ticket or consultant's time cannot be resold but are wasted if not utilized when available. Capacity adjustment and demand smoothing are hence important in services.

The IHAP attributes were the cornerstone of research in the first decade of service marketing. Nowadays they can be perceived as the characteristics of value that is expected to be gained from the use of service (Vargo and Lusch, 2008).

A second approach to services is presented by Sampson and Froehle (2006, 331) who define the foundation of service in their Unified Service Theory (UST):

- "With service processes, the customer provides significant inputs into the production process."

According to Sampson and Froehle (2006), the presence of customer inputs is a necessary and sufficient condition to define a production process as a service process. In manufacturing, customers might contribute ideas to the design of the product, but the role of an individual customer is limited to the selection and consumption of the outputs, and consumers do not contribute inputs specific to production for that particular customer (ibid.). Customer inputs can consist of *customer-self inputs* (the physical presence or customer co-production), *tangible belongings* (e.g. customer owns a tangible that is delivered for a repair service) or *customer-provided information* (e.g. insurance policies or tax return preparation) that triggers a service process (ibid.).

The most influential change in the service thinking is Vargo and Lusch's (2004) new paradigm that abandoned the goods-service dichotomy. Service-dominant logic emphasizes that service logic should be the dominant logic in both production and marketing: the value that the *use* of both goods and service brings to the consumer should be emphasized instead of the value-in-exchange. Vargo and Lusch (2004, 2) define service as:

- "The application of specialized competences (skills and knowledge), through deeds, processes, and performances for the benefit of another entity or the entity itself (self-service)".

Self-service is carried out by a customer; s/he does something that was previously conducted by an employee of a company, and the interaction with an employee is usually replaced with an interaction with an automated system (e.g. ATM, websites, tracking systems). There are several technologies that enable self-service ranging from touch screens in department stores, information kiosks at hotels, self-scanning in grocery stores and libraries, telephone and online banking, or shopping on the internet (Dabholkar and Bagozzi, 2002). From the company's point of view, the motivation for turning to self-service

is usually the need for cost cutting. From the consumers' point of view, self-service allows flexibility and convenience with regard to time and place. Self-service has also reduced service heterogeneity with standardized service interfaces.

Self-service is often, but not always, electronic service. According to Rowley (2006, 341), *e-service* is defined as:

- “E-service is deeds, efforts or performances whose delivery is mediated by information technology. E-service includes the service element of e-tailing, customer support and service, and service delivery. “

E-service shares the same broad aims as e-commerce: i) sharing information; ii) maintaining relationships; and iii) conducting transactions by means on internet-based technology (Zwass, 1996). Scupola (2008) perceives e-service as a subset of e-commerce, and lists online banking and retailing, e-learning, e-health, e-government and e-libraries as typical e-service.

Technology can function as an enabler for customer and employee by offering possibilities for customization, service recovery or spontaneous delight possibilities (Bitner et al., 2000). Technology-enabled services have many benefits, but there can also be problems and paradoxes. According to Mick and Fournier (1998), technology both assimilates and isolates people; it provides a sense of control and ineptitude, it facilitates involvement and activity while it can also lead to disconnection and passivity, and the use of technology can result in greater efficiency and productivity or in waste of time and effort. Parasuraman (2000) introduced the concept “technology readiness index” with which he showed that some segments of customers are not interested and ready to use technology.

In the empirical data gathering phase the views that emphasize the differences between services and goods were manifested. For example, both the financial experts and consumers distinguished between intangible service and tangible products. The process nature of services and the requirement for specialized skills were also identified. Service-dominant logic was less apparent in the empirical data.

2.1.2 Service Science

Services have been the topic of studies for decades in, for example, Arizona State University, Swedish School of Economics and Business Administration (Hanken), Helsinki

School of Economics (now known as Aalto University School of Economics), and Karlstad University, to name a few. IBM has brought the study of service under an umbrella term, Service Science, or Service Science, Management and Engineering.

According to IBM, the largest labor force migration in human history is under way from agriculture and industry to service. The role of service has changed from a residual category (anything that did not fit agriculture or manufacturing) to the fastest growing part of economic activity in the developed economies. Service is increasingly important in the national GDP statistics of the developed countries and in the everyday life of consumers. According to Chesbrough and Spohrer (2006), the time is ripe for services to be considered as separate from products due to the proliferation and advancements in ICT. It is now possible to separate knowledge from the artifacts in which the information used to be embodied, and to use and reuse it. The quantity of information on people, technological artifacts and organizations is vast, and it is possible to configure information so that it best serves the service relationship by creating value for both the service provider and the customer. Service science is especially interested in service innovation – how to harness the untapped possibilities of service.

Service Science is a growing inter-disciplinary research and academic effort that integrates aspects of established fields such as computer science, IS, operations research, engineering, management sciences, business strategy, social and cognitive sciences, and legal sciences (IfM and IBM, 2007). Inter-disciplinary activity attempts to unite various areas based on a cross-disciplinary collaboration (*ibid.*). Service science focuses on service systems that can be defined as dynamic value co-creating configurations of resources, including people, technology, organizations and shared information (language, laws, measures and methods), all connected internally and externally by value propositions, with the aim of consistently and profitably meeting the customer's need better than through competing alternatives (IfM and IBM, 2007). The people involved; either consumers, service providers or affiliates, are very often the main source of complexity, but also the competitive advantage of the system. The literature on IS, service marketing and service design are the areas of service science that provide the general framework for the present dissertation.

2.1.3 Personalization

Personalization is a broad concept, and quite often it is left undefined in practitioner and academic publications. When definitions are presented, they each emphasize a particular lens to the phenomenon of personalization. The theme attracts interest from several disciplines - especially marketing, computer science and information systems - but their approaches and methods of inquiry differ. Most of the research on personalization takes a technological view (e.g. Cao and Yunfeng, 2007; Zhang and Jiao, 2007). Another common theme is the interplay between personalization and privacy (e.g. Awad and Krishnan, 2006; Chellappa and Sin, 2005). With the notable exceptions of Adomavicius and Tuzhilin (2005), Vesanen and Raulas (2006) and Miceli et al. (2007), personalization as a process, and the organizational changes necessary to conduct effective personalization have received scant attention. In addition, the effectiveness and efficiency of personalization in the consumer decision-making context are in need of further research (e.g. Ho, 2006; Tam and Ho, 2005; 2006).

Some consultants, for example, Kasanoff (2009), believe that personalization will be the driver of the global economy within the next decade. Personalization is already prevalent online through personalized search, news and advertising, and particularly in healthcare and education it is expected to be the key trend in the next decade. Personalization requires several capabilities from companies; deep customer understanding, designing of service experience, building new business models and a customer-centric organization, knowledge of communication and experience of cultures. When the offering is tangible, the production process and logistics must also be optimized (Möller, 2009).

The personalization classification that is provided in the third essay of this dissertation is based on *user involvement*. The framework builds on the earlier models of Instone (2000), Wu et al. (2003) and Fan and Poole (2006). Wu et al. (2003) emphasized user involvement in the personalization process by asking *who* personalizes; is the user actively and knowingly personalizing the service (so called explicit personalization) or is the personalization carried by, for example, the provider of the website (implicit personalization). Another question is *what* is being personalized; the user interface or the content. Fan and Poole (2006) added the channel of delivery into the personalization framework.

In addition to personalization, mass-customization term and research field are studied in essay three. Especially the differences and similarities between the personalization and

mass-customization research trends are investigated.

2.1.4 Multichannel Delivery

The concept of channel is widely used but appears to have different meanings to different people depending on their academic or professional background (Vesa and van Heck, 2005). Rosenbloom (1999) sees a marketing channel as an external contractual organization that management operates to achieve its distribution objectives. In general, the term channel indicates a logistics channel for the transfer of physical goods or a marketing channel for the flow of information. Barry and Fulmer (2004) use the term computer-mediated-communication (CMC) to describe interaction through electronic media even though they admit that CMC as a category fails to distinguish among the expanding variety of channels of interaction that rely on computing devices.

The terms channel and media are often not defined, or are used interchangeably. If these terms are perceived differently, the term channel usually describes the technical way of delivering, for example, by copper cable. Griffith and Northcraft (1994) define the relationship between the concepts so that communication medium is a constellation of communication channels, and prefer the term media, which they perceive as “richer” than channel. In this dissertation, the term *multichannel* is defined as different information and customer service touch points through which customers can be in contact with the service provider. Some companies (e.g. the publishing house Axel Springer) use the term multimedia to describe the multitude of different media through which customers and the company can interact. However, the term multimedia also has different connotations, for example, an integration of multiple forms of media, including texts, graphs, audio and video. For this reason the term multimedia is not used in this dissertation.

The proliferation of several channels through which consumers interact with service providers is an emerging field of research. Multichannel customer management – the design, deployment, coordination, and evaluation of channels through which firms and customers interact, with the goal of enhancing customer value through effective customer acquisition, retention, and development, is important both for practitioners and academics (Neslin et al., 2006; Neslin and Sharnkar, 2009). The research interest on multichannel (MC) delivery has emerged fairly recently. The widespread use of ICT, especially the internet and mobile technologies, has created the need to understand why and how

consumers are using multiple channels, and how companies should develop channel strategies. Sousa and Voss (2006) define multichannel service as a service composed of components (physical and/or virtual) that are delivered through two or more channels. Rangaswamy and van Bruggen (2005) refer to customers who use more than one channel to interact with firms as multichannel customers, and marketing strategies to reach such customers as multichannel marketing. According to Neslin et al. (2006), the main determinants of customer channel choice can be divided into five groups:

1. marketing efforts (Ansari and Mela, 2003),
2. channel attributes (Devaraj et al., 2006),
3. channel integration (Burke, 2002; Montoya-Weiss and Voss, 2003),
4. social influence and situational factors (Burke, 2002; Dabholkar and Bagozzi, 2002)
5. individual differences (Dabholkar and Bagozzi, 2002; Durkin, 2004).

In addition, the task characteristics of goal-directed or experiential tasks (Hoffman and Novak, 1996; Moe, 2003), and the type of products purchased (Chiang et al., 2006), also influence the channel choice. In the financial services context, Black et al. (2002) found that, *consumer characteristics* (e.g. confidence and lifestyle), *product characteristics* (e.g. complexity and price), *channel characteristics* (e.g. personal contact and convenience), and *organizational factors* (e.g. size and longevity) have an impact on what channels customers choose for service delivery.

The pioneers of multichannel research have studied the area since the beginning of 1990s (e.g. Apte and Vepsäläinen, 1993; Tinnilä and Vepsäläinen, 1995). Helsinki School of Economics (now Aalto University School of Economics) conducted a few broad research projects on electronic commerce and multichannel environment the results of which were reported in, for example, Palmer et al. (2000) and Saarinen et al. (2005).

For the purpose of this dissertation, a comprehensive literature search from five journal databases (Ebsco, Emerald, ISI Web of Science, ProQuest, Science Direct) was conducted from 2000 onwards because the proliferation of internet use in both B2B and B2C relationships intensified the MC research activity at the turn of the century. Literature searches with search words “multichannel” and “multi-channel”, together with ancillary search words “customer”, “consumer” and “user” were carried out at the end of 2009. Figure 2 presents the number of multichannel articles published during 2000 – 2009.

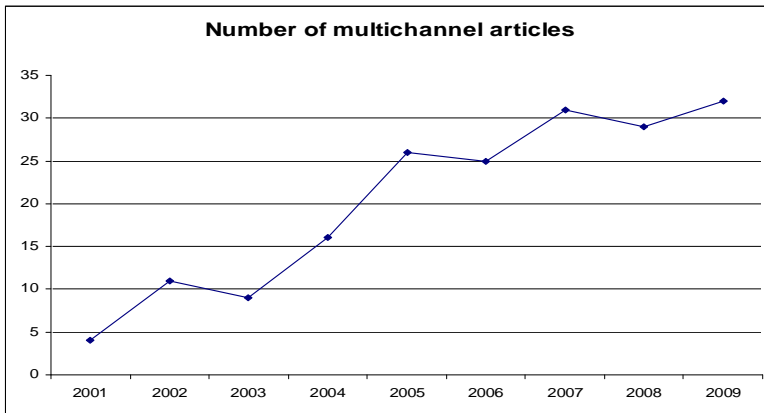


Figure 2: Number of multichannel articles between 2000-2009.

The multichannel research was classified into the following three main categories: i) inquiry into consumers' *channel behavior* (including channel choice and preferences and consumers' attitudes towards different channels; e.g. Ansari et al., 2008; Dholakia et al., 2005; McGoldrick and Collins, 2007; Venkatesan et al., 2007, Verhoef et al., 2007); ii) *satisfaction and loyalty* of multichannel consumers (e.g. van Brinigen et al., 2006; Devaraj et al., 2006; Froehle, 2006; Kwon and Lennon, 2009; Montoya-Weiss et al., 2003; Shankar et al., 2003; Wallace et al., 2004; Verhoef and Donkers, 2005); and iii) *company-focused* articles that ranged from investigations of the influence of industry structure to pricing issues (e.g. Coelho and Easingwood, 2005, 2008; Griffiths and Howard, 2008; Webb and Lambe, 2005; Wilson and Daniel, 2007).

According to the review, the main research methodology employed was quantitative inquiry, especially consumer survey and multivariate analyses. In addition, longitudinal secondary data were used in model building. Some articles (Balasubramanian et al., 2005; Nicholson et al., 2002; van Dijk et al., 2007) adopted qualitative methods, especially interviewing. Due to the relative novelty of the research field there were several articles that presented conceptual frameworks and reviews (Ebberts et al., 2008; Neslin et al., 2006; Neslin and Shankar, 2009; Payne and Frow, 2004; Rangaswamy and van Bruggen, 2005; Rosenbloom, 2007; Sousa and Voss, 2006. *Retail* (e.g. Ansari et al., 2008; Devaraj et al., 2006; Gensler et al., 2007; Verhoef et al., 2007; Venkatesan et al., 2007), *financial*

sector (e.g.; Coelho and Easingwood, 2005, 2008; Eriksson and Nilsson, 2007; Haytko and Simmers, 2009; van Bringen et al., 2006), and lately, *government services* (Ebberts et al., 2008; Pieterse and Ebberts, 2008; Teerling et al., 2010) are principal lines of business in which empirical research has been conducted. The most frequently studied channels were store, catalogue and the internet, and the purchase process (including search phase) was increasingly examined instead of focusing narrowly on the act of buying.

Based on the review the following was uncovered:

1. MC means different things to different researchers; some perceive it as purchasing decisions from more than one channel, while others regard multichannel as search and purchase decisions from different channels, as so called research-shopping (Verhoef et al., 2007).
2. MC research most often studies store, the internet and catalogue channels.
3. There is a broad agreement on the variables that have impact on channel choice, however, the importance of the variables seems to be context and situation dependent.

The reviewed articles give a good overview of the state of MC research. They do not, however, include all the published articles on MS research since the search strings only used word stems with “multi”, and only the articles that included these words were included in the sample. Articles that used the following words; virtual, electronic, online, offline, and so on were not specifically searched from the databases. Furthermore, the sample consisted of articles from the 21st century.

In this research, interviews, focus groups and a survey were used as research methods when investigating consumers' multichannel preferences with the presumption that several channels are used by most of the consumers, depending on the task and the context.

2.1.5 Relationship Strength

According to the relationship management view, in the relationship between the service provider and the customer, the customer is the party who has a preferential right of interpreting the nature of the relationship. Following the social exchange theory (Homans, 1958) and the social contract theory (Macneil, 1980), the service relationship can be of a discrete (a separate decision to buy/use is made each time) or a continuous (a contract)

nature. A continuous service relationship can be said to exist when a customer has made a second purchase, or in the banking context, when a contract is signed. According to the marketing literature, a strong relationship is most probably found where commitment, trust and bonds are present (Herington et al., 2005).

Financial service relationships are often used as examples of the relationship management approach (a strategy to attract, maintain and enhance customer relationships). The perceived strength of the relationship that customers feel towards their FSPs is an interesting research topic in the current era of “the competitor is only a click away”. In contrast to research on service quality, satisfaction, and loyalty, which are the most researched topics in the marketing literature, there are only a few studies on the relationship strength. Barry et al. (2008), Donaldson and O'Toole (2000) and Hausman (2001) have examined relationship structure and strength and its impact on performance in a non-finance B2B context. Herington et al. (2005) studied qualitatively firm-employee relationship strength, and Herington and Weaven (2007) found that online service quality alone is not a sufficient means for building strong relationships and retaining customers in the retail banking context. Wong and Sohal (2006) developed a model of relationship strength in the retail sector, and claim that their results can be generalized to the banking and insurance industries. Other researchers have focused on the role of a salesperson (Bove and Johnson, 2001; Kim and Stoel, 2005), or on comparing varying levels of relationship strength in different service industries (Ward and Dagger, 2007). Ward and Dagger (2007) found that in the five service contexts they studied (doctor, hairdresser, bank, cinema and electricity company), customers in general perceive that the relationship with a bank represents a medium level of strength; and the relationship was the strongest with a hairdresser, and the weakest with a cinema. The relationship strength is particularly applicable in situations where the service involves a high component of interpersonal delivery, and when the service is varying and high in experience or credence qualities, making quality difficult to predict or evaluate and therefore increasing the perceived risk to the customer (Sheth and Parvatiyar, 1995).

Relationship marketing proposes that customers are retained through developing strong relationships (Morgan and Hunt, 1994), and the marketing literature sees commitment and trust as the most common antecedents to strong relationships. Ball et al. (2006) group the antecedents of loyalty as follows:

- characteristics of the *environment* (e.g. perceived switching costs or technological

changes)

- characteristics of the *dyadic relationship* (e.g. shared norms or relationship duration)
- characteristics of the *consumer* (e.g. relationship tendency or involvement in the category)
- *consumers' perceptions of the relationship with the company*, for example, *service satisfaction* examined by Bloemer and Dekker (2007) and Storbacka et al. (1994); *trust* examined by Ennew and Sekhon (2007) and Morgan and Hunt (1994); and *relationship quality* investigated by Crosby et al. (1990).

Consumers' perception of the relationship strength with the service provider can thus be seen as an antecedent to loyalty. In this study, relationship strength is defined as the extent, degree, or magnitude of relationship that is governed by the levels of trust and of commitment the customer feels towards the service provider (Bove and Johnson, 2001).

2.2 Theoretical Frameworks

2.2.1 Trust

Trust has been defined in various disciplines, each emphasizing different dimensions. Only a few studies have combined perceptions and definitions from several disciplines (e.g. Blomqvist, 1997; Mayer et al. 1995; McKnight et al., 1998; McKnight and Chervany, 2001) in order to produce a comprehensive understanding. Several studies have discussed trust in services (Coulter and Coulter, 2003; Sillence et al., 2006), including some that have considered the financial context (Balasubramanian et al., 2003; Cox, 2007; Ennew and Sekhon, 2007; Harrison, 2003; Heffernan et al., 2008). Trust is seen as one of the most important components in customer relationships (e.g. Crosby et al., 1990; Coulter and Coulter, 2003; Morgan and Hunt, 1994). In their definition of trust McKnight and Chervany (2001) consider its separate facets; disposition to trust, institution-based trust, trusting beliefs, and trusting intentions. These aspects lead to trust-related behaviors. Table 2 presents descriptions of the various facets of trust.

Table 2: Descriptions of different facets of trust (based on Mayer et al., 1995; McKnight et al., 1998; McKnight and Chervany, 2001).

Concept	Definition
1. Disposition to trust	This construct derives primarily from disposition or trait psychology. It is the extent to which one displays a consistent tendency to be willing to depend on others in general across a broad spectrum of situations and persons.
2. Institution-based trust	The construct comes from sociology; people can rely on others because structures, situations, or roles provide assurances that things will go well. This consists of structural assurance and situational normality.
- Structural assurance	Socially or legally sanctioned institutions impose norms of performance and integrity of economic agents (i.e. guarantees, contracts, regulations, promises, legal recourse, processes, or procedures).
- Situational normality	Everything seems to function normally and to be in proper order.
3. Trusting beliefs	The trustor's perception that the trustee has attributes that are beneficial to the trustor. The main elements are belief in competence, benevolence and integrity.
- Belief in competence	One believes that the other party (trustee) has the ability or power (e.g. technical capabilities, skills and know-how) to do for one what one needs done.
- Belief in benevolence	One believes that the other party (trustee) does well to the trustor in a dyadic relationship, aside from an egocentric profit motive.
- Belief in integrity	One believes that the other party (trustee) adheres to a set of principles that the trustor finds acceptable (e.g. makes good faith agreements, tells the truth, acts ethically, and fulfils promises).
4. Trusting intentions	The trustor's willingness to depend on a trustee in a given situation.

Trusting beliefs are the trustor's cognitive beliefs that result from observing the trustee's actions, and attributing the causes of the behavior to the trustee's internal trust-related characteristics (Komiak and Benbasat, 2004; McKnight and Chervany, 2001). These cognitive beliefs represent *cognitive trust*. However, a rational choice perspective is not sufficient because decisions based on trust usually involve both reasoning and feeling (Komiak and Benbasat, 2006). Several studies distinguish between the cognitive and emotional/relational facets of trust (e.g. Dimitriadis and Kyrezis, 2008; Ennew and Sekhon, 2007; Heffernan et al., 2008). *Emotional trust* is defined "as the extent to which one feels secure and comfortable about relying on the trustee" (Komiak and Benbasat, 2004, 187).

In addition to the trust constructs mentioned above, *engineering trust* issues – security, usability, reliability, availability, safety, and privacy – are perceived to be increasingly important (Hoffman et al., 2006). Privacy, security and the interplay between privacy and

personalization have especially attracted research (e.g. Awad and Krishnan, 2006; Dinev and Hart, 2005; Olivero and Lunt, 2004). According to Awad and Krishnan (2006), consumers conduct a “privacy calculus” before disclosing personal information in order to determine whether the benefits from the disclosure outweigh the risks associated with it.

The different meanings and conceptualizations of trust that various parties attach to service relationship was the research finding of the first essay.

2.2.2 Adoption and Use of Utilitarian Information Systems

The distinction between hedonic and utilitarian information systems (van der Heijden, 2004) is derived from the concept of utilitarian and hedonic products in the consumer behavior literature (Hirschman and Holbrook, 1982). *Hedonic systems* aim to provide self-fulfilling value (pleasure, fun, happiness) to users whereas *utilitarian systems* aim to provide instrumental value (van der Heijden, 2004). Instrumentality implies that there is an objective that is external to the interaction between the user and the system. Usually the aim is to increase the user's task performance while encouraging efficiency (ibid.). Most of the information system studies have examined utilitarian systems, for example the Technology Acceptance Model, TAM (Davis, 1989) was validated in the work environment with utilitarian systems.

The TAM is probably the most common theory used to explain the acceptance of technology among individuals. The TAM builds on the socio-psychological models of the Theory of Reasoned Action, TRA (Fishbein and Ajzen, 1975) and the Theory of Planned Behavior, TPB (Ajzen, 1988). The TPB consists of four general constructs: behavioral intention, attitude, subjective norm and perceived behavioral control. The TPB suggests that a person's *intention* depends on their *attitude* (beliefs about positive or negative values associated with the behavior), *subjective norm* (beliefs about whether the behavior is accepted by important referent individuals) and *perceived behavioral control* (belief about how easy or difficult it will be to perform the behavior). In essay one the interviews questions and focus groups themes were based on the constructs of TPB.

The Technology Acceptance Model specifies the causal links between the key features: perceived usefulness and perceived ease of use, and the users' intentions and actual use of the system. The TAM defines *perceived ease of use* as the degree to which the user believes using the system is free from effort. *Perceived usefulness* defines the degree to

which the user believes using the system enhances his or her performance (Davis, 1989). According to the TAM, perceived ease of use and perceived usefulness are the sole determinants of attitudes towards an innovation, which in turn predicts behavioral intention, the sole predictor of actual behavior. One of the most important service channel attributes is convenience, a concept similar to ease of use. Convenience was included as a channel attribute in the survey the results of which are reported in essay two.

Another approach to the utilitarian and hedonic consumer behavior was presented by Novak et al. (2003) in which they emphasize that the goal of the individual consumer may differ in the context of the internet. According to these authors, there is a distinction between goal-directed and experiential behavior online, as depicted in Table 3.

Table 3: Distinctions between goal-directed and experiential behavior (modified from Novak et al., 2003).

	Goal-directed	Experiential
Motivation	Extrinsic motivation	Intrinsic motivation
Orientation	Instrumental orientation	Ritualized orientation
Involvement	Situational involvement	Enduring involvement
Benefits/value	Utilitarian benefits/value	Hedonic benefits/value
Search process	Directed (pre-purchase)	Non-directed (ongoing), browsing
Choice process	Goal-directed	Navigational
Attitude	Cognitive	Affective
Shopping as	Work	Fun
Shopping process	Planned purchase, repurchasing	Compulsive shopping, impulse buy

The third, and a more general perspective that is not restricted to the internet environment, is the concept of mindset. Mindsets represent cognitive orientations associated with certain thinking patterns (Gollwitzer, 1990). A *deliberative mindset* (i.e. considering potential pros and cons of particular courses of action) leads to an accurate and impartial analysis of information and is associated with open-mindedness, whereas an *implemental mindset* (i.e. planning how to carry out activities) promotes an optimistic and partial analysis of information and is characterized by closed-mindedness (ibid.). The major factor that determines the formation of a mindset in the context of the internet is the goal that a

consumer has in mind when visiting a site. For example, Pagendarm and Schaumburg (2001) found that consumers with different mindsets have different levels of recall for banner advertisements. In addition, Wolfinbarger and Gilly (2001) showed that consumers with goal-oriented (implemental) and exploratory (deliberative) mindsets have different buying intentions.

The basic premise in this dissertation is that electronic banking is a utilitarian information system, and that a goal-directed behavior prevails. Utilitarian online bank environment presents specific challenges and advantages to the interaction. On the one hand, the environment is secure for conducting confidential affairs, free from disturbances, and banks already have plenty of information about customers and their financial behavior. On the other hand, customers are generally believed to be in a goal-oriented mindset when they access the online bank, that is, they are mainly interested in completing the task in hand (usually paying bills) rather than observing other messages or links.

2.2.3 Persuasive Models and Information Processing

There are several theoretical models on external stimuli and how they are processed. McGrath (2005) presents a review of models used in the research of marketing communication, and Oinas-Kukkonen and Harjumaan (2008) examine the situation from the point of view of IS. The most cited model in both cognitive psychology and consumer research (Lien, 2001) is the *Elaboration Likelihood Model* (ELM) by Petty et al. (1980) and Petty and Cacioppo (1986).

ELM examines how persuasive messages influence attitudinal changes. The model is used in many areas of research, for example, in public health communications (e.g. Rucker and Petty, 2006), technology adoption (e.g. Bhattacharjee and Sanford, 2006) and personalization (e.g. Tam and Ho, 2005). The ELM explains why some aspects of persuasive messages influence attitude change, and consequently behavior. The ELM postulates that the information processing route, either central or peripheral, influences attitude change. The route taken depends on the motivation and ability of the message recipient to elaborate on the messages. When the motivation and ability exist (i.e. the elaboration likelihood is high), the message recipient is assumed to use the central route characterized by considerable cognitive elaboration. The recipient focuses in depth on the central features of the messages, and evaluates message arguments and implications

carefully. With low elaboration likelihood the peripheral route is taken, and the recipient examines the message quickly or focuses on simple cues, and applies simple decision-making rules or heuristics. Even though the model presents two modes of elaboration as opposing points, they can be perceived as end-point of a continuum. The elaboration could thus take place in varying proportions of peripheral and central processing.

Most of the research with ELM as a theoretical base has taken place in print or audio-environment. There are only few articles that combine the internet and ELM. Braverman (2008) concluded that the message modality affects message processing: Print or written modality makes systematic processing more likely whereas the effect of peripheral cues is more pronounced with audio or video messages (ibid.). The credibility of source is often used as a cue in advertising research. Wathen and Burkell (2002) proposed a model for how users judge credibility of online information. The model includes evaluation of surface credibility, message credibility and content. Tam and Ho (2005) drew on ELM and examined three elements of web personalization strategy: level of preference matching, recommendation set size and sorting cue.

ELM was employed as an interpretative device when customers' reactions to promotional messages were studied in essay four. The peripheral and central processing attributes (e.g. argument quality, source credibility, type of pictures etc.) were analysed. All the messages analysed with ELM were delivered through online bank.

The *Information Processing Model* (IPM) proposes a sequence of six steps that the process of persuasion is presumed to follow: presentation (of the stimuli), attention, comprehension, yielding, retention, and finally overt behavior (Perry 1996). A shorter version of IPM (with attention, elaboration and choice stages) was used in essay five when the reactions of customers to personalized messages at an online bank were examined.

3. Methodological Overview of the Essays

In this section, an overview of the data collection and analysis methods is presented. I briefly review the important research themes, understanding of theory and main philosophical underpinnings of the contemporary studies of Information System Sciences (IS) and link my own research to the general discussion in IS research field. Furthermore, the reliability and validity of the studies are discussed.

3.1 Research Themes and Types of Theories in the Information Systems Discipline

According to Sidorova et al. (2008), the intellectual core of information system sciences (IS) discipline comprises of research examining the interaction of individuals and their collectivities with the IT artifact. Herein research themes consist of:

1. IT and individuals
2. IT and groups
3. IT and organizations
4. IT and markets
5. IS development

While the first four research areas examine how, and to what effect, IT is used and managed, the fifth research area, IS development, examines the information technology itself, and how it is developed. My research takes place mainly in the IT and individual research theme that focuses on individual technology acceptance, human relations issues in IS, computer self-efficacy, end-user computing, and so on. The recurring research themes in the IT and individual research category between the years 2002 and 2006 were website design, trust, computer self-efficacy, individual technology acceptance, online consumer and personalization and privacy issues (Sidorova et al., 2008).

Gregor (2006) addresses the issues of causality, explanation, prediction, and generalization that underlie an understanding of what theory is in the IS discipline. She proposes a taxonomy that classifies IS theories with respect to the manner in which four central goals are addressed: analysis, explanation, prediction, and prescription. Five

interrelated theory types are distinguished:

1. theory for analyzing
2. theory for explaining
3. theory for predicting
4. theory for explaining and predicting
5. theory for design and action.

The taxonomy and distinguishing attributes of each type of theory are depicted in Table 4. The research presented in this dissertation fall mainly under the analysis and explanation research themes.

Table 4: Taxonomy and distinguishing attributes of IS theory (Gregor, 2006).

Theory Type	Distinguishing Attributes
1. Analysis	Says what is. The theory does not extend beyond analysis and description. No causal relationships among phenomena and no predictions are made.
2. Explanation	Says what is, how, why, when and where. The theory provides explanations but does not aim to predict with any precision. There are no testable propositions.
3. Prediction	Says what is and what will be. The theory provides predictions and has testable propositions but does not have well-developed justificatory causal explanations.
4. Explanation and prediction	Says what is, how, why, when, where, and what will be. Provides predictions and has both testable propositions and causal explanations.
5. Design and action	Says how to do something. The theory gives explicit prescriptions (e.g. methods, techniques, principles of form and function) for constructing an artefact.

3.2 Philosophical Underpinnings in the Information Systems Discipline

In IS research, the most common division of philosophical perspectives is that of positivism, interpretative, and critical paradigms (Myers, 1997; Orlikowski and Baroudi,

1991). *Positivists* generally assume that reality is objectively given and can be described by measurable properties that are independent of the observer (researcher) and his or her instruments. Positivist studies generally try to test theory, in an attempt to increase the predictive understanding of the phenomenon. *Interpretive* researchers start with the assumption that access to reality (given or socially constructed) is only through social constructions such as language, consciousness and shared meanings. The philosophical base of interpretive research is hermeneutics and phenomenology (Smith, 2006). Interpretive studies generally attempt to understand phenomena through the meanings that people assign to them and interpretive methods of research in IS are aimed at "producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context" (Walsham, 1993, 4–5). *Critical* researchers assume that social reality is historically constituted and that it is produced and reproduced by people. Although people can consciously act to change their social and economic circumstances, critical researchers recognize that their ability to do so is constrained by various forms of social, cultural and political domination. Critical research aims to bring light to the restrictive and alienating conditions of the status quo, and focuses on the oppositions, conflicts and contradictions in contemporary society, and seeks emancipation (Myers, 1997). In two literature reviews on the philosophical perspectives and methodology used in IS research articles (Chen and Hirschheim, 2004; Orlikowski and Baroudi, 1991), positivism was found as the most prolific perspective and quantitative methods were the most used methods to examine IS-related reality. However, some IS researchers (e.g. Weber, 2004) emphasize that the alleged differences between positivism and interpretative research are not so great.

My ontological perspective is that of realism; the world is real and exists independently of cognition, that is, independent of thought and speech processes. According to the theoretical ideas of Bhaskar (1978) and Archer (1982), and in contrast to the traditional realist approaches, critical realism argues for a stratified ontology. There are three nested domains; *the real* (structures or mechanism that exist independently of us) which contains *the actual* (events that those mechanisms could potentially generate) which contains *the empirical* (the subset of events that are observed or experienced) (Mingers, 2001; Volkoff et al., 2007). The task of the researcher is to explore different tendencies and mechanisms that cause the events that we can experience.

Epistemology explains what knowledge is, what is true, and how knowledge can be

produced. Different kind of knowledge is required in research work. I have relied heavily on experiential knowledge, and used several sources of empirical data in my studies. With regard to epistemology, the perceptive of realism is appealing to me: realism accepts the necessity for hermeneutic phase of inquiry since understanding is a necessary condition for explaining. However, it does not accept the belief shared by interpretative researchers that it is not possible to go beyond the conscious self-understanding of individual subjects (Mingers, 2004). Realism believes that theory cannot be used in a predictive manner and can only play on explanatory role in social investigation. Dobson et al. (2007) argue that the target for realist research is not an objective or generalizable truth but the achievement of the best we can do at the time, a “practically adequate” explanation. Dobson et al. (2007) emphasize that realist methodology and writings need to reflect a continual commitment to caution, skepticism and reflexivity because realism recognizes the inevitable fallibility of observation, especially in the social world, and therefore requires the researcher to be particularly aware of the assumptions and limitation of their research (ibid.). Consequently I conclude this dissertation with a presentation of the limitations of this research and reflections about myself as a researcher.

Even though I found realism an interesting research paradigm I did not follow any one paradigm in my research, but my thinking was influenced by several paradigms. Furthermore, there are only few explicit guides as how to carry out research with a realistic perspective, with the article by Sobh and Perry (2005) as an exception. Essays two and five are closest to traditional positivist research, mainly because of the quantitative methods used. However, I emphasize the context-dependency of the findings, and my purpose is to answer the question: “What works for whom in what circumstances, and in what respects?” as advised by Dobson et al. (2007). In addition, for me causality is everyday causality, not constant conjunction as advocated by researchers with positivism and empiricism as their guiding paradigms. However, I do not focus on mechanisms that cause events and experiences, nor do I pay adequate attention to the dualism of structure and agency for these essays to be called research conducted with critical realism approach. Furthermore, the aim of critical realism with regard to emancipation is not evident in these studies.

Essays one and four employ qualitative focus groups and interviews, and the aim is to understand why customers behave the way they do. Especially essay one with the “let the data reveal” approach, was an attempt to find the mechanisms behind the overt behavior

of consumers regarding investments, but the dualism of structure and agency was not given enough attention. Essay four is a mixture of qualitative and quantitative inquiry, and exploratory in nature. However, the justifications that customers gave for their preferences provided some indication of what the underlying tendencies for their behavior might be. My interest in realism is evident in this dissertation mainly as a focus on the context specificity of the results, and on the reflexivity of the researcher's role in the research process.

3.3 Research Process – Combining Quantitative and Qualitative Research Methods

Some researchers find methodological pluralism and cross-paradigmatic research to be without sound foundation because paradigm incommensurability (Burrell and Morgan, 1979; Kuhn, 1962) leads to a corresponding incommensurability of research methods included in different paradigms. However, several researchers encourage methodological pluralism (e.g. Mingers, 2001; Niehaves, 2005; Weber, 2004). Mingers (2001) offers two fundamental arguments for advocating methodological pluralism: 1) different methods provide a different view of a certain phenomenon of interest, and 2) research (processes) take place in different phases, which show substantially distinct characteristics and thus require the application of different research methods. I believe that different methods shed light on different aspects of the main phenomenon of this dissertation; the use of ICT in the interaction between the financial service providers and consumers, thus providing a richer picture of reality. Table 5 provides an overview of the research methods that were used in this dissertation. The section that follows discusses the issues in more detail.

Table 5: Summary of the research methods used in the essays.

Essay	Research methods	Research objects	Data collection and analysis	Data
1	a) Consumer focus group discussion	Consumer opinions about wealth and wealth management online and offline	Content analysis, transcript analysis with QSR NVivo 8.0, Excel	6 groups, 33 discussants
	b) Expert interviews	Expert opinions about wealth and wealth management	Semi-structured interviews, analysis with QSR NVivo 8.0 , Excel	11 expert interviews
2	Consumer survey	Consumer opinions and behavior about multichannel service delivery	Logistic regression analysis, t-tests with SAS 4.0	Survey, sample of 1500 customers of a FSP, response rate 20,6%, 291 usable responses
3	Literature review and research profiling	Personalization and mass-customization research literature	Database search in ISI Web of Science, selection based on abstracts, analysis with VantagePoint	Abstracts of 883 and 1544 articles analyzed using text-mining based research profiling
4	Electronic focus group interviews	Consumer opinions about bank marketing in multichannel environment and messages in online bank	Content analysis	4 computer mediated sessions, 53 customers
5	Click-stream analysis	Consumer behavior regarding promotional messages in online bank	Statistical analysis with SAS 4.0	3-week click-stream data on 874 customers of a FSP in three experiments (281, 300, 293 customers in groups)

3.4 Research Design and Data Collection and Analysis

3.4.1 Essay 1: Qualitative Focus Group Discussions and Interviews in the Wealth Management Context

The data for the first essay was gathered during a 2-year exploratory research project that was set up in Finland in 2006. The main objective of the project was to gain a deeper

understanding of the underlying wealth management motives of consumers, and to examine the potential of a new service. Individual customers who do not qualify for the private banking service formed the target group of the service. In this study, wealth management was viewed broadly in terms of savings, investments and insurance advice and instruments. The perceptions of consumers regarding wealth were inquired, and compared with the views that financial experts had about consumers' perceptions. In addition, customer service, including personal and electronic service options, was discussed.

Qualitative methods, that is, focus group discussions and interviews were chosen as the data gathering instruments. Focus groups are generally considered to be suitable for explorative studies (Beckett et al., 2000; Black et al., 2001) and a relatively affordable way of data gathering offering group dynamics and interaction between the discussants. A distinction was made between focus group discussions and focus group interviews, following the example of Boddy (2005). Focus group discussions were the method used in the first essay. The participants to these discussions were voluntary consumer panelists from the National Centre for Consumer Research (see Pulliainen, 2008) and thus well used to expressing their opinions on a multitude of issues. The impact of group pressure that might have skewed the results was alleviated by including six groups in the discussions, each presenting slightly different demographic profiles. Expert interviews followed the themes of the focus group discussions. Although the same set of topics was covered in each interview, the guide was not followed in a rigid manner; in this regard the specific wording of questions, the sequence in which topics were introduced and the follow-up questions that were asked varied from interview to interview.

A distinctive feature of this study was the dyadic research methodology: the data was collected from two independent sources, from consumers and financial experts, and the results of the two sources were compared with each other. Previous dyadic research has mainly focused on the B2B environment (Holmlund-Rytkönen and Strandvik, 2002; Järvinen, 1988; Paulin et al., 1997), but there are also examples of B2C research, especially in the financial context (e.g. Nordman, 2004; Åkerlund, 2005). Consumer focus groups included 33 consumers in six groups, and 11 financial experts were interviewed.

Interviews and focus group discussions are not similar data collection instruments. In interviews, the interviewer is more in control of the process of interviewing, whereas in focus groups, the discussion flows fairly freely and the participants lead discussion to the

issues they find important. In addition, the discussants use their own expressions and words. In choosing focus groups as the instrument, free associations and interaction between the participants were of interest. After the focus groups, the participants were asked to complete a short questionnaire regarding the topics discussed.

The transcripts of the consumer panel discussions and the answers to the questionnaire were combined in the analysis. The mechanism that influences the consumers' wealth management behavior was formed by analyzing consumers' perceptions about wealth management and their relationship with the FSP. This knowledge was used to classify the customers into four groups, thus forming a trust-involvement matrix of customers.

3.4.2 Essay 2: Quantitative Survey in the Wealth Management Context

Based on the results of the qualitative phase of the research and an earlier examination of the literature, a questionnaire to the customers of a Nordic FSP was developed. The questionnaire included several themes, ranging from motivation for financial behavior to customers' views about the total wealth management service. Most of the items used in the questionnaire were adapted from previous studies. In addition, practitioners and academics participating in the research project commented extensively on the questions, resulting in several changes to the final questionnaire form. The self-administered consumer questionnaire survey was mailed in a 2-round survey to 1500 retail banking customers. The customer data of the financial service provider was used to ensure that the respondents had sufficient wealth and income for the survey to be meaningful to them. The customers in the sample did not use private banking services, but managed their assets either independently or after consultation with a financial advisor.

The emphasis of the second essay was on the channel preferences of wealth management customers. The channel attributes - convenience, security and personalization – were examined, and more specifically, which attributes customers attached to different channels: purely personal channel, purely electronic channel or multichannel service delivery. In addition, the purely personal and purely electronic channel groups were compared in terms of the customers' perceived strength of the relationship with the FSP. Based on the previous literature the following associations (see Figure 3) were presumed between the dependent variable (preferred service channel for wealth management tasks) and the independent variables.

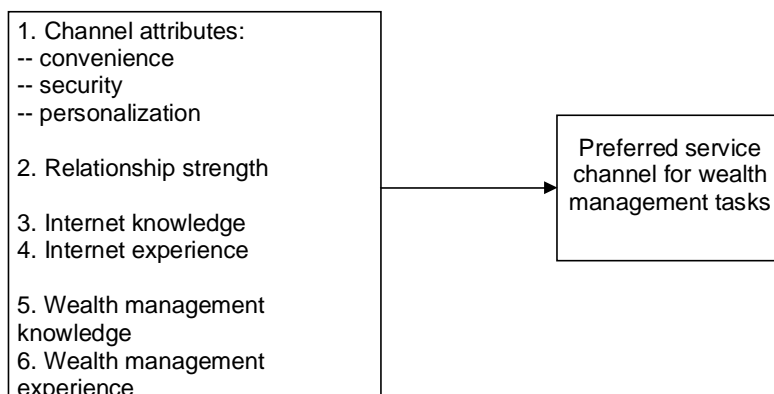


Figure 3: Research model for channel selection in the wealth management tasks.

The survey resulted in a response rate of 20.6 percent (309 returned questionnaires), which is satisfactory considering the length of the questionnaire, the sensitivity of the topic, and the fact that it was a mailed survey. After having removed incomplete responses, 291 usable questionnaires remained available for analysis. The data were analyzed with SAS 4.0, and logistic regression and t-tests were employed to determine which variables are important for channel preferences, and how the two groups of customers, those that preferred predominantly electronic service delivery differed from the group that preferred predominantly personal service delivery.

3.4.3 Essay 3: Conceptualization of Personalization through Literature

The third essay examined the concepts and frameworks of personalization through two complementary ways of investigating previous research literature: *traditional literature review* and *research profiling*. The general purpose of the traditional literature review is to justify the research questions and to present relevant earlier research on the subject. The search process for relevant literature is iterative because in each search one learns more about the topic under investigation. Porter et al. (2002, 351) propose enhancing the traditional literature review through an extensive research profiling approach, as “this broad scan of contextual literature can extend the span of science by better linking efforts

across research domains. Topical relationships, research trends, and complementary capabilities can be discovered, thereby facilitating research projects.”

Research profiling is enabled through sophisticated text-mining tools combined with modern search engines and electronic science databases. In addition to offering advanced reporting functions, these text-mining tools allow the researcher to interact with the literature data. The tools can be regarded as Decision Support Systems for researchers (Bragge et al., 2007b). Table 6 summarizes the key differences between traditional literature reviews and research profiling. The largest difference is based on the amount of literature included and, consequently, on the type and scope of discussion it allows.

Table 6: Comparison between traditional literature reviews and research profiling (Porter et al., 2002, 353).

Traditional literature reviews	Research profiling
Micro focus (paper-by paper)	Macro focus (patterns in the literature as a body)
Narrow range (~20 references)	Wide range (~20 – 20.000 references)
Tightly restricted to the topic	Encompassing the topic + related areas
Text discussion	Text, numerical, and graphical depiction

In the traditional literature review, the definitions and frameworks of personalization were collected. Most of the journals chosen for the literature review represented marketing and IS disciplines. Because the most common complementary term for personalization was mass-customization or customization, the term mass-customization was included in the subsequent research profiling. Research profiling was conducted on personalization and mass-customization employing one of the most well-known scientific databases, the ISI Web of Science (ISI-WoS). ISI-WoS was chosen because of its wide coverage of information systems and computer science journals.

The searches of personalization and mass-customization articles were conducted in spring 2009 and resulted in 883 (personalization) and 1544 (mass-customization) articles covering the time period 1986 - 2009. The data (including bibliographic details and abstracts, not full-texts) were imported to a text-mining tool called VantagePoint.

Thereafter the data had to be cleaned to improve the validity of the results. Only journal articles were included in the analysis because conference papers are less structured and might lack keywords or abstracts. After the clean-up, the analysis of the data was conducted with the help of VantagePoint software.

3.4.4 Essay 4: Qualitative Electronic Focus Group Interviews

The fourth essay focused on personalized communication in the bank marketing context, with a particular focus on online banking. The research data were collected in fall 2006 through focus group interviews (Boddy, 2005) conducted electronically through computers in the same-time, same-place mode. A group support system (GSS) called GroupSystems® MeetingRoom was utilized in data gathering. It has originally been designed to support teamwork and group decision-making (Nunamaker et al., 1991), but can equally well be used to carry out of focus group interviews or discussions (Bragge et al., 2007a; Klein et al., 2007; Kontio et al., 2007).

Both traditional and electronic focus group methods were employed in the research presented in this dissertation. The computer-mediated focus group interview utilized in this study can, to some extent, be seen as an intermediate form between traditional face-to-face and virtual focus groups (Bragge et al., 2007a; Kontio et al., 2007). The following table (Table 7) lists the distinct benefits and drawbacks of GSS-mediated focus groups (modified from Bragge et al., 2007a). Some of the strengths of the method, compared to traditional face-to-face interviews are their efficiency (enabling larger group sizes, simultaneous communication, and automated reporting), digital group memory during and after the sessions, and anonymity. The weaknesses of the method are the lack of expression because participants are mainly interacting with their computers, the need for special premises and technical expertise, and the potential for technical problems.

Table 7: Characteristics of GSS-mediated face-to-face focus groups (modified from Bragge et al., 2007a).

Benefits (+)	Drawbacks (-)
<i>Participants</i> + Potential to contribute simultaneously + Supports larger groups and more heterogeneous groups	<i>Participants</i> - Not everybody is willing to use computers - Fluent typing skills are needed and varying typing speed may have unfavorable effects on the process
<i>Moderator</i> + Moderator may give instructions verbally	<i>Moderator</i> - Moderators must have expertise on GSS-technology
<i>Costs</i> + Transcription expenses are eliminated, the transcripts are complete and immediately available	<i>Costs</i> - High travelling costs (participants + moderator) - High rental cost of a proper venue
<i>Process</i> + The process usually stays focused without any external distractions + Potential to include quick electronic surveys and polls, also to discuss results and pinpoint disagreements + Structured agenda aids keeping to time and replicating several groups with different participants	<i>Process</i> - A back-up plan needed in case of technology breakdown
<i>Contents</i> + Possibility for anonymous contributions: encourages confidential and honest opinions + Group thinking and domineering are alleviated + Participants feel more comfortable giving also negative or controversial feedback + Ideas are not evaluated based on the presenter	<i>Contents</i> - Anonymity might induce free-riding or flaming - Not suitable when capturing body language is vital - Potential for an anchoring effect (first comment might be overly influential)

The study comprised of four group sessions, each lasting 2.5 hours, with 11 - 14 interviewees in each group. The interviewees were posed a small set of related questions at a time, and were allowed to answer them in the order they wished. The interviewees saw each other's answers, and were allowed to comment on them or to further deliberate on their own answers. The sessions were conducted fully anonymously, it was thus neither

possible to group a single person's comments together, nor associate individual comments with the background demographics that were gathered. After each session ended, all the interview answers were immediately available in writing using the automated reporting function of the GSS tool.

Altogether 53 persons participated in the focus group interviews. The pilot group consisted of 14 students from Helsinki School of Economics (now known as Aalto University School of Economics). However, 10 of the students interviewed were also customers of the bank with whom we collaborated in the study, thus representing real customers of the bank. The other interviewees were randomly selected from the three main customer segments of a Finnish FSP (mortgage borrowers, investors and "active-rationals", i.e. those customers who actively use various tools offered by the bank's website). Because the customers were familiar with transactional online environments, we knew in advance that they had the prerequisites for using computers as the interview media, and they could draw upon their own experiences when asked about online services.

During the focus groups, two scenarios with differing types of personalization: 1) *preference matching* (messages are directed to the needs of the correct customer segment) and 2) *self-referent personalization* (there is personal information of the recipient in the messages) combined with different channels were presented to the customers. In addition, 14 promotional messages were shown as color print copies to the customers who were asked to indicate what variables caught their attention. The messages represented several complete screenshots of the authentic online bank web pages. The respondents were told that promotional banner messages are situated in the part of the online bank that requires user authentication. Furthermore, the respondents were asked to imagine that context and personalized information in the messages were their own.

3.4.5 Essay 5: Quantitative Experiments in Online Banking

Based on the focus group insights gained in essay four, field experiments were designed and conducted at the bank's website during nine weeks in 2006 – 2007. Three different field experiment groups were created for 874 of the bank's customers. Each group was shown a different personalized message in the form of a banner advertisement as they logged on to the online bank.

1. The first group consisted of 281 customers who did not have the electronic bank

account statement service, and they were shown a message: *"Problems with archiving? Switch your bank account statement to the net!"*

2. The second group comprised 300 customers who only had mortgage loans from the bank in question, and they received a message: *"Have you considered that credit loans from banks are less expensive?"*(to improve the comprehensibility of the message, the wording was changed from the ECIS conference paper)
3. The third group included 293 customers who had a bank card that was about to be withdrawn from the market, and their message read: *"Your X-card is about to expire. You can easily switch to Y-card on the net"*.

Each customer participated in only one group. Direct online access to the promoted service was possible only in the first group. The other two cases required a personal visit at the branch office at a later stage, although the application process could be initiated online.

The analysis was based on click-stream data. The term click-stream denotes the electronic records of internet usage recorded by company web servers, and indicates the path a visitor takes through one or more pages or websites (Bucklin et al., 2002). According to typical information processing models, consumers go through attention, elaboration and choice phases when exposed to persuasive messages (see e.g. Tam and Ho, 2005). With only the click-stream data there is only partial knowledge regarding *attention*, since the number of customers who noticed the messages, but decided not to click the banner is not known. However, the click-through rate of a personalized banner is used as an indicative measure of attention. Moreover, the number of unique sessions that accessed the personalized banner was measured.

Stickiness was used as the *elaboration* measure. Stickiness refers to the amount of the time a person spends on a website during a visiting session (session stickiness) or over a specified time period (site stickiness) (Lin et al., 2010). According to Lin (2007) stickiness is the website's ability to retain online customers and prolong the duration of each stay. Bucklin and Sismeiro (2003) employ the number of pages requested during a session as a proxy of stickiness. The measures employed in this study were adopted from the bank with whom we collaborated in the research project. The overall stickiness (durations of sessions both in pages and in seconds) and page stickiness (the average time spent per page) were calculated and compared between the sessions that accessed the

personalized banner and those that did not. The results between the three experimental groups were also compared. *Choice* was measured with the number of the products purchased by the time the experiment was over; and also related to the total amount of customers in the respective group (pull-% of the group).

Finally, the *effectiveness* of the personalized messages was measured. The proportion of default banner hits (banner of equal size in the same location on the website to a median user) to total hits was first measured and then compared to the proportion of personalized banner hits to total hits in order to receive the *lift* of the personalized message. In addition, the pull-percentages of the field experiments were compared with comparable personalized direct-mail promotions that had been launched in temporal proximity of the field experiments. Finally, the effect of the personalized banners in the *temporal order of the login sessions*, that is, the click-stream figures regarding repeated banner-ad exposure, was compared.

3.5 Reliability and Validity of the Research

Since this dissertation consists of both quantitative and qualitative studies, the quality of research has to be considered from the point of view of both approaches. In general, *validity* refers to the degree to which research or a measure accurately examines or represents what it is supposed to; and *reliability* refers to the degree to which the observed variable measures the “true” value and is thus error free.

In *quantitative research*, external and internal validity, reliability and objectivity are the key criteria used to measure the quality of research. *External validity* refers to the potential to generalize the research results to a wider population. *Internal validity* refers to the confidence that can be placed in the cause-and-effect relationship (Sekaran, 2003). When measures or variables are examined, *reliability* tests how *consistently* a measuring instrument measures whatever concept it intends to measure (Sekaran, 2003).

There are several types of validity tests for measures. I will only review those most relevant to my research. *Content validity* ensures that the measures are an adequate and representative set of items to tap the concept (Straub et al., 2004). *Construct validity* is an issue of operationalization of measurements between constructs (Straub et al., 2004). Construct validity testifies to how well the results obtained from the use of the measure fit the theories around which the test is designed; this is assessed through discriminant and

convergent validity. *Discriminant validity* is established when two variables that are predicted to be uncorrelated based on theory, are so. *Convergent* validity is evidenced when items proposed to reflect a construct converge, particularly when compared to the convergence of items relevant to other constructs. The comparison with other constructs is one element that distinguishes convergence validity from reliability (Straub et al., 2004)

Essay two was carried out as a survey research and the results were first examined with Principal Component Analysis (PCA) and then analyzed with logistic regression and t-tests. Because the sample consisted of customers of only one FSP, the external validity (i.e. generalizability) is limited. Content validity of measures was established through literature review and by obtaining remarks from several researchers and financial services practitioners who commented on the suitability of the items. Reliability of the constructs was measured by Cronbach alpha; with a requisite that scores were greater than the minimum acceptable level 0.7. Discriminant validity for PCA require that loadings are at least 0.4 and no cross-loadings of items is allowed to exceed 0.4. The items fulfilled these requirements. Convergent validity further demands that items load on the correct construct. However, one of the items loaded on another construct that it theoretically should have. The main caveat of validity is the small number of items included in each construct. The concept of relationship strength especially warrants further conceptualization and empirical studies. In essay five, click-stream data were analyzed, and the measures and operationalization of the constructs were determined after reading theories of information processing and articles that had used similar approaches.

In *qualitative research*, the most important criteria for the trustworthiness of the research consist of credibility, dependability, confirmability and transferability (Lincoln and Guba, 1985). These criteria were used in essay one and four. *Credibility* refers to a sufficiently comprehensive and, at the same time, exact picture of the phenomena under research. In the dissertation, credibility was enhanced by the rigorous analysis of the empirical material. Furthermore, quotations from genuine customers were used as evidence in both qualitative essays. Two different research contexts provided a more comprehensive understanding of the financial service sector and the changes that have taken place in this line of business. In addition, the involvement of several researchers in the analysis of the data further enhanced the credibility of the results. Credibility is thus enhanced by *research triangulation*.

Denzin (1978) identified data, investigator, theory and methodological triangulation. *Data*

triangulation represents time, space and persons. Several consumers, customers and financial experts took part in the data gathering phases. However, none of the studies were longitudinal, but the studies represent separate time slots. *Investigator triangulation* involves collective research activity. In this dissertation, research design, data collection and analysis were mostly planned and implemented in collaboration with other researchers. *Theory triangulation* includes the use of more than one theoretical perspective in the study of the phenomena. The Theory of Reasoned Action, the Theory of Planned Behavior, the Technology Acceptance Model, Information Processing Model and Elaboration Likelihood Model were used as guiding frameworks to understand the opinions, perceptions and behavior of consumers in goal-directed tasks carried out in utilitarian information systems or in personal encounters. The *methodological triangulation* and multi-method approach of this dissertation is described earlier in this section.

Dependability is the extent to which the findings would be repeated if the inquiry were replicated with the same or similar respondents in the same (or similar) context. Previous research has already established the salience of trust in several contexts, especially in the retail banking context. Essay one further elaborated the importance of trust by showing that different facets of trust are meaningful for FSPs and customers in the wealth management context. Furthermore, similar research results within the remaining essays, most notably in essays one and four, refer to customers' irritation and avoidance of promotional messages, and the dislike of the prospect of further promotions from FSPs. *Confirmability* refers to consistency of the researcher as a "research instrument". The researcher should be consistent in her research work and the conclusions drawn on the basis of the research should also be consistent (Lincoln and Guba, 1985). In this work, I have aimed at strengthening confirmability by presenting the research process and process of inferring results from literature and data clearly and unambiguously. If the research results are *transferable* the findings can be applied to comparable contexts. Some of the aspects of research designs or used methods could be applied in other contexts. Regarding transferability of findings, I believe that the experiences with the financial services could also be transferred, to some extent, to e-health and e-government services, which is an issue worthy of further research.

4. Review of the Results and Theoretical and Practical Contributions

In this section, I review the empirical research results and discuss the theoretical and practical implications presented in essays one to five. Furthermore, I elaborate on the contributions of the essays.

4.1 Essay 1: Empirical Investigation into the Multi-faceted Trust in the Wealth Management Context

In the first essay, the objective is to answer the following question:

RQ1. *What mechanisms influence consumers' behavior in the investment context?*

The research found that different facets of trust were relevant to financial experts and consumers in the wealth management context in general, and in the investment context, in particular. In the consumers' discussions *trusting beliefs* and *trusting intentions* were intertwined. Consumers talked about their interpersonal trust in the financial advisor, and how news in the mass media and personal experiences had made them doubt the competence, integrity and benevolence of financial advisors. Consumers also discussed their feelings, thus emphasising not only cognitive beliefs but also the emotional aspect of trust. *Dispositional trust* represents a personality trait that was not emphasized in the empirical data. The financial experts emphasized the *institution-based trust* in the financial infrastructure and financial institutions, and referred to structural assurance – trust that the established legislation and procedures had built up in the financial sector.

The categorization of focus group discussants into four groups emerged after the analysis and combination of data from focus groups and the short questionnaire that the focus group discussants filled. Consumers diverged the most regarding their level of trust in the FSPs, and the level of involvement in making investments. Basing on Zaichkowsky (1985), involvement was defined as consumers' interest in investing, and willingness to be immersed in an information search and learning about the subject. Wealth management instruments are usually considered to be high-involvement services (Aldlaigan and Buttle, 2001; Foxall and Pallister, 1998). However, in the discussions, consumers' involvement in

making investments differed considerably. The mechanism that affected consumer behavior - trust and involvement - were used to distinguish the four consumer groups in the trust-involvement matrix (see Figure 4): *uninterested bystanders* (low trust, low involvement), *civil duty savers* (high trust, low involvement), *cost-aware investors* (low trust, high involvement), and *convenience-driven investors* (high trust, high involvement). In addition to trust and involvement, the information sources used and the typical financial instruments that the customers acquired differed among the groups.

Trust	high	2. Civil duty saver	4. Convenience-driven investor
	low	1. Uninterested bystander	3. Cost-aware investor
		low	high
		Involvement	

Figure 4: Trust-involvement matrix in the investment context.

In contrast to Beckett et al. (2000), who constructed a consumer matrix based on earlier theoretical research, the trust-involvement matrix was a result of an analysis of empirical data: consumer focus group discussions, questionnaires and expert interviews. In previous segmentation studies on consumer financial behavior, the underlying assumption has been that there is a trusting relationship between the FSP and customers. This study makes a theoretical contribution by presenting mechanisms that influence consumer behavior in the investment context. The level of trust that the consumers feel towards the FSP and its representatives has an impact on the consumers' overall behavior in the wealth management context.

A small number of recent quantitative survey studies have categorized consumers into segments based on their financial attitudes or behavior in investment markets (e.g. Fünfgeld and Wang, 2009; Keller and Siegrist, 2006; Loibl and Hira, 2009; Nilsson, 2009;

Wood and Zaichkowsky, 2004). Whereas quantitative studies have examined frameworks with pre-selected variables, the results of this study emerged from the data.

Consumers recognized the role of the financial advisor as a “servant to two masters” (the FSP and the customer), and believed that the financial advisor was more loyal to the employer than to customers. The financial advisor is, in effect an agent to two principals, the employer and the customer, turning the traditional principal-agent theory (Eisenhardt, 1989, Pavlou et al., 2007; Rees, 1985) into a trilateral agency problem. The employer compensates for the work and uses supervisory schemes to guide the actions of the financial advisor. Both compensatory mechanism and supervision should be implemented so that they encourage the financial advisor to think about the good of the customer. Thus, the focus should be on human resource policies, training and internal marketing.

Signalling long-term commitment and clarity of sales material and sales encounters might alleviate the problem of distrust. Furthermore, as Redhead (2008) suggests, understanding human behavior and the complexities of the financial advice business might increase the appreciation of the psychological biases that weaken the communication between the financial advisor and the customer.

The managerial implications emphasize the need for financial service companies to plan their marketing and customer service to serve different customer groups in suitable ways. The trust - involvement matrix developed in this study can be a helpful tool for the segmentation and development of customer service. Different combinations of perceived trust and involvement demand different marketing and sales approaches from financial advisors, and different contents in the wealth management e-services.

4.2 Essay 2: Predominantly Electronic or Personal Service Delivery? A Case in the Wealth Management Context

The second essay focuses on customers' multichannel preferences in the wealth management context. The majority of previous research has focused on the adoption of e-service (e.g. Colgate and Smith, 2005; Herington and Weaven, 2007; McKechnie et al. 2006), and only lately has started to explore the continued use of e-services (e.g. Eriksson and Nilsson, 2007, Falk et al., 2007). Furthermore, Messinger et al. (2009) addressed the general challenges of combining human and automated service. This purpose of the paper

is to increase the understanding of customers' multichannel use in the wealth management context, and especially the association between the strength of relationship and channel preferences. The following research question is asked:

RQ2. *What factors impact the preferences for electronic and personal service channels in the wealth management context?*

Because the results of the qualitative phase of the project indicated that wealth management was perceived broadly by customers, the same approach was adopted in this study. Multichannel service delivery is clearly preferred to purely electronic service delivery (only 4% of the sample preferred purely electronic option) or purely personal service delivery (14% of the sample chose this option) in wealth-related tasks. Furthermore, 55% of the customers preferred *predominantly personal service (PPS)* whereas 25% held *predominantly electronic service (PES)* preferences. The channel attributes: channel convenience, channel security and channel personalization were associated with predominantly personal service delivery. In addition, there was an association between the perceived relationship strength and channel preferences; those customers who perceived stronger relationship with the FSP preferred personal service. Increasing internet and wealth management knowledge, on the other hand, indicated a preference for increasingly electronic service delivery. The following table (Table 8) presents the results of a logistic regression analysis wherein the personal service option was denoted as 1. Only those variables that are significant at the 0.05 level are presented.

Table 8: Influential variables for channel preferences.

Parameter	DF	Estimate (B)	Standard Error	Wald Chi-Square	Pr > Chi Sq	Exp (B)
Intercept	1	1.5401	0.3292	21.8828	<.0001	4.665
Channel Convenience	1	1.227	0.2938	17.4402	<.0001	3.411
Internet Knowledge	1	-0.7583	0.3194	5.6354	0.0176	0.468
Wealth Mgmt Knowledge	1	-0.5927	0.2925	4.1053	0.0427	0.553
Channel Personalization	1	3.1297	0.5074	38.0397	<.0001	22.867
Relationship Strength	1	0.8288	0.2838	8.5305	0.0035	2.291
Channel Security	1	0.9689	0.2932	10.9212	0.001	2.635

The t-tests between the PPS and PES groups revealed quite distinguished profiles of the two customer groups. Those customers who preferred PES were demographically more

likely to be young males and they held more investments in shares than the PPS group. The PES group employed more versatile information sources than the PPS group who mainly relied on the information provided by their primary financial service provider. In addition, customers in the PES group preferred making independent decisions instead of turning to financial advisors for advice. Perceptions about the advice that the financial service companies offered differed, too. According to the PES group the advice of the financial service companies mostly promoted the products or services of the particular company, and not the greater good of the customer. Furthermore, the behavioral loyalty and perceived switching costs diverged, confirming the stronger perceived relationship between the PPS customers and their FSP than that between PES customers and their FSP.

In general, wealth management issues are considered as high in equivocality, containing multiple and conflicting interpretations. Equivocality often means confusion, disagreement and lack of understanding (Daft et al., 1987). The results support the channel selection based on the Media Richness Theory and complexity of tasks; most customers prefer to carry out the high-equivocality wealth management tasks through personal encounters. However, those customers that were knowledgeable about both the internet and wealth management turned increasingly to electronic service for their wealth management needs.

The study contributes to the channel preference literature by establishing that different customer segments preferred predominantly electronic or predominantly personal service delivery. The association between the perceived relationship strength and the channel preference can be postulated to either intensify the relationship by providing better service and easier access to service, or weaken the relationship because of the lack of human contact. In this study, there was an association between the lower perceived relationship strength and increased use of electronic service. However, based on the logistic regression it is impossible to determine the causal direction of the association. Those customers who prefer electronic service delivery because they have, for example, a recurrent need of investing might perceive a lower strength of relationship because they lack personal contact with a financial advisor. Customers might also feel that they do not need a relationship with a FSP because they themselves are experienced and knowledgeable about financial affairs. On the other hand, those customers who start the relationship with skepticism and distrust in FSP, and thus low relationship strength, might prefer electronic channels for all available contacts because they want to avoid personal

contact with the representatives of FSPs. Only a more detailed future research would uncover these issues.

The financial service sector has a long history of developing new ways of interacting with customers, and multichannel use is the main consumer behavior. This study contributes to the information systems literature because the previous information systems literature has mainly focused on the acceptance of the internet channel, and neglected other channels available to customers. However, customers consider more than one channel when they are looking for a convenient way of conducting their wealth management activities and thus more than one channel should be included in research designs. In addition, this essay investigated the continued use of channels rather than channel acceptance, which has been the case in previous mainstream IS-research.

This essay has several managerial implications. The main practical contribution of this study is that it sheds light on the frequency of use of personal and electronic service, and to the attributes that are associated with the delivery channels in the wealth management context. I found the following research result especially interesting; current electronic services are not perceived as personalized even though they contain personal information of individual customers. Customers would prefer the FSP to personalize the interaction to a greater degree, that is, to include relevant information linked to the situation of the customer. The mere greeting of customers by name, or collecting all personal account and investment information under an account is not enough to evoke the perception of personalized service by customers, but more is needed.

Traditional wealth management services are delivered face-to-face, and require expertise from the individual financial advisor, making the delivery process labor intensive. Despite the worldwide financial crisis that started in 2008 the number of consumers willing and able to save, invest and plan for the future is expected to increase. Hence, the challenge of finding suitable service channel combinations will intensify. When electronic and personal services are combined the wealth management service providers are not only able to offer services to a larger number of customers but can also provide more comprehensive and more integrated service to cover consumers' wealth management needs as a whole. Even though customers are active users of online banking for everyday monetary affairs, the majority of customers seem to need personal interaction, at least at some stage of the process, for more complex transactions. In addition, because the multichannel strategy emerged as the most preferred channel choice both electronic and

personal channels have to be developed in an integrated manner (see also Frei, 2008; Messinger et al., 2009). A more personalized electronic experience could be offered with a tool that aggregates customers' financial transactions in order to show their financial status and the allocation of wealth automatically, without manual calculations (Sunikka et al., 2010).

4.3 Essay 3: Personalization and Customization in the Research Literature

Personalization is a part of the research designs in essays one and two but the third essay focuses on personalization, and especially, on the concept of personalization. The framework of personalization is based on traditional literature review and research profiling. As there are no agreed definitions of what personalization and a closely related concept, mass-customization, mean, this paper set out to examine these two research streams in order to answer the question:

RQ3. *What constitutes personalization, and how it differs from mass-customization?*

In the literature review, differing conceptualizations of personalization and mass-customization emerged from studies in the marketing, production and operation management and human-computer interaction (HCI) disciplines. For example, Arora et al. (2008, 306) define *personalization* as “a firm’s decision on the marketing mix suitable for the individual and based on previously collected customer data”. *Customization*, on the other hand, occurs “when a customer proactively specifies one or more elements of her / his marketing mix” (ibid., 306). The research profiling uncovered the yearly divisions of articles returned from the “personalization” and “mass-customization” literature searches (see Figure 6) for the time period 1995–2008. The figure shows that the research under both terms has increased annually.

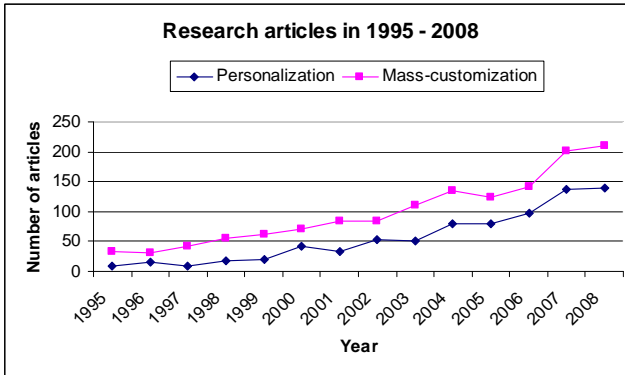


Figure 5: Articles including the search words Personalization and Mass-customization 1995– 2008.

Among those researchers who defined personalization and customization as separate concepts, the consensus is that the term personalization is used in three contexts. It is:

- 1) a company-driven process,
- 2) used with marketing concepts, especially personalized communication, and
- 3) used mainly in the internet context.

Based on the literature review and the research profiling, a framework representing the current concepts found in personalization, customization and mass-customization research is presented in Table 9.

Table 9: Framework for personalization, customization and mass-customization research.

	Intangibles (web-context, service)		Tangibles (products)
	<i>Individual</i>	<i>Group</i>	<i>Individual and group</i>
<i>System initiated</i>	One-to-one personalization	Mass personalization	Mass-customization
<i>User initiated</i>	Web customization	Collaborative customization ¹	

1) In the conference paper, this was named co-operation customization

The personalization framework is based on the *user involvement* in the personalization process, following the earlier models of Wu et al. (2003) and Fan and Poole (2006). The distinction between customization and mass-customization is such that *customization* is perceived as an activity controlled by users, for example, configuring the content of a website, whereas *mass-customization* focuses mainly on tailoring products with affordable prices.

The potential to personalize the offering from one person to more recipients has been depicted as the personalization continuum. *One-to-one personalization* is personalization directed to an individual and initiated by a system (also expressed as implicit, transaction-driven or adaptivity) whereas personalization directed to several people is called *mass-personalization*. Customer-initiated personalization for configuring websites is typically called *web customization* (also explicit personalization or adaptability). A new concept, *collaborative customization*, refers to a situation in which consumers collectively personalize a website or a service to fit their common goals and preferences. For example, the software applications of web 2.0 have made the use of folksonomy (user-generated taxonomy) popular (Mathes, 2004). Folksonomies make collective classification of information possible by allowing users to socially bookmark and tag stories, pictures and videos (Mathes, 2004), and thereby could also be used for personalization at a group level. For example, Xue et al. (2009) examined a new approach for searching, a collaborative personalized search.

The research contribution of this study is a categorization framework of personalization, customization and mass-customization research. The categorization was based on more than 1500 articles about mass-customization and over 800 personalization articles. The focus of mass-customization research has shifted from purely tangible products to a combination of products and services, or even purely services. The main focus of personalization research has been on technology solutions, especially regarding recommender systems, collaborative filtering and web-mining. The aim of this paper was to increase understanding of how personalization is perceived by scholars and to provide clarity to the definitions because the multiplicity of definitions and terms may slow down the development in the field. In addition, it is beneficial to practitioners if the concepts are more lucid and understandable. However, as with all themes of contemporary research, the framework is a starting point for analysis and subject to future change because both research fields are in constant flux. Furthermore, information gathering on customers'

preferences, needs and previous behavior usually combines both customer and company initiatives, thus a division of personalization and customization based on who takes the initiative blurs in reality. In the future, the framework should be further developed.

4.4 Essay 4: Promotional Messages in the Multichannel Banking Context. Attractive or Annoying?

The focus of the fourth essay is on promotional messages, and how their delivery through various channels influences the acceptability of the messages. In addition, the perceptions of customers towards two types of personalization; preference and self-referent personalization are examined. The research question is:

RQ4. *How do customers perceive personalized promotional messages delivered through different channels?*

The customers were first asked to choose through which channel they would like to receive messages that contained two types of personalization: 1) *preference-matching* and 2) *self-referent* (containing personal information of the customer). The results are presented in Table 10, and show how the channel preferences are dependent on the type of personalization used in the messages. Direct mail was the preferred channel with regard to preference-matching content, whereas mail functionality at the online bank was appreciated when the message contained self-referent information. Furthermore, although not asked explicitly, customers suggested that marketing communication should be delivered through several channels, that is, advocating the multichannel communication.

Table 10: The most suitable and the least suitable channels for preference and self-referent personalized messages.

	Preference-matching content (PMC)				Self-referent information (SRI)			
	<u>Most suitable</u>		<u>Least suitable</u>		<u>Most suitable</u>		<u>Least suitable</u>	
	#	%	#	%	#	%	#	%
Direct mail	24	42%	7	12%	16	32%	9	21%
Phone call	10	18%	22	38%	10	20%	22	52%
E-mail	15	26%	13	22%	2	4 %	9	21%
Mail at online bank	8	14 %	16	28%	22	44%	2	5%
Total #	57		58		50		42	

The quadrant matrix of the acceptance or disapproval of personalized messages (Figure 6) was constructed based on the analysis of the opinions of the focus group participants. The Elaboration Likelihood Model (ELM) developed by Petty et al. (1993) and Petty and Cacioppo (1986) was used to guide the analysis. Even though the model is usually employed with numerical data, we found it helpful in the interpretation of the textual data. Two *personalization strategies for content* suggested by Tam and Ho (2005) were adopted in the study: self-referent and preference-matching personalization. The other dimension in the matrix was the *type of the message*, consisting either of advertising or informative content. This matrix presents a simplification of the reality, since most of the promotional messages contain both informative and advertising content. Furthermore, the self-referent messages were also preference-matching messages.

Type of content personalization	Type of message	
	Advertisement	Informative customer service
Preference-matching personalization	2. Ignorance or irritation if the message is not perceived as relevant	4. Mostly accepted and appreciated
Self-referent personalization	1. Mostly not accepted, annoyance	3. Noticed and accepted if self-referent info is not too sensitive

Figure 6: Matrix of personalized messages.

The main theoretical contribution of the study is the divergent impact of the different types of personalization. If self-referent personalization was employed, customers attended to the promotional message, and a heuristic rule of the suitability of the message was evoked. However, the indiscreet use of self-referent personalization could undermine the favorable effect. When preference-matching personalization was adopted, a central route of elaboration was evoked. However, the message was not necessarily noticed in a goal-directed online bank environment. This research contributes to the theoretical discussion by showing the need to investigate multiple channels simultaneously in order to understand the in-depth views of customer preferences. Previous personalization research

has focused on the internet environment, rather than on comparing the effectiveness and acceptance of personalized messages delivered through several channels. Furthermore, the context-specificity of the acceptance of promotional messages is an under-researched area for which this research has implications. This study contributes to the online advertising research by presenting a context that has not been previously examined academically.

Push marketing is increasingly being replaced by pull marketing and customers' own activity and initiative. This study was an example of a typical digital push marketing employing banner advertisements. The experiments were, however, personalized and permitted interactivity in the contact; and thus fitted the contemporary conceptualization of messages that should be appealing to active consumers (Stewart and Pavlou, 2002). The main goal of personalization is to provide the right offering at the right time, price and place for the right customer. However, the place – authenticated section of the online bank, is a demanding location since the use of self-referent information might break from the expected behavior of the bank, and the customers might feel that their right to privacy has been violated (Milne and Gordon, 1993). In the words of one of the consumers: "I am already a customer of the bank, I should have the right to be left alone when I have not explicitly asked for information".

The research design employed in essay four enabled the comparison of the preferences of customers regarding various messages in different channels. This study contributes to the discussion of online promotions and emphasizes the context-dependency of the findings. The findings emphasize the conservative nature of customers when bank marketing is concerned, for example, phone and e-mail marketing were considered risky and intruding. Contrary to the common negative perceptions about direct mail, it was actually the most preferred channel for messages containing preference-matching personalization. The multichannel preference results offer guidance for marketing managers when they are considering the channel choices for marketing promotions.

4.5 Essay 5: Personalized Marketing Messages in the Online Banking Context: Does Anybody Notice?

The fifth essay was a continuation to the research presented in the fourth essay, and the lessons learnt from focus group interviews were used in planning the research design for

the fifth study. Since the provocative use of self-referent information clearly irritated the focus group participants, such messages were removed from the consequent field experiments. Two messages with preference-matching personalization were applied, and self-referent personalization was applied in one experiment and in a modest form. The messages were the following:

1. "Problems with archiving? Switch your bank account statement to the net!"
2. "Have you considered that credit loans from banks are less expensive?" and
3. "Your X-card is about to expire. You can easily switch to Y-card on the net".

The research question of the study is:

RQ5. *How effective are personalized messages compared to general messages in the goal-directed online bank?*

The effectiveness of the personalized banners was compared with default banners (a banner situated at the same place on the website and of equal size) via click-stream analyses. The results show that the *lift* of a personalized banner compared to the default banner was about 120 in the net bank statement group, 12 for the loans group and 57 for the X-card group. The *pull-percentages* of the personalized groups were measured after the experiment was over, and included the number of customers who had applied or signed the contracts of the promoted products or services. The pull-% was the highest in the X-card group (19%), followed by the net bank statement group (12%); it was the lowest in the loans group (6%). Interestingly, the final purchases were higher than the click-throughs (measured as unique sessions) in both the loans group and in the X-card group. This indicates that seeing the messages might act as a reminder and a trigger for action even though the banner is not selected (comparable to a brand-building effect). When the pull-%'s of the personalized messages were compared to the pull-%'s of comparable direct-mail marketing promotions (that have a general pull-% of 9.5 - 10.0 % for the net bank statement, 5% for consumption loans and about 35% for the X-card), we noticed that the personalized banner messages seem to be more effective in product categories such as the net bank statement and loans. However, the costs of delivering promotional messages should also be incorporated into the analyses. Due to the exploratory nature of the study, the costs were not included in the comparisons, and therefore in order to develop the findings further research is required.

The main theoretical contribution of this study is the finding that the personalized

messages are attended to more than the default messages also in utilitarian information systems (van der Heijden, 2004) in which customers are supposed to function in a goal-directed mindset. Some researchers (e.g. Sääksjärvi and Gratiana, 2006) have doubted that promotions receive any attention in goal-directed websites. In addition, the type of product or service that is being promoted has an impact on customer behavior. Relatively simple digital offerings match the online bank's distribution channel best. Furthermore, although mainly direct response measures (Chandon et al., 2003) were employed in this study, the measures of choice (actual behavior) imply that the marketing messages also worked through memory (with repeated exposure), and not only when selecting the banner. The complementary brand-building view presented by Hollis (2005) is acknowledged because indirect effects were discernible in the experiment.

For bank marketing practitioners this study offers confirmation that personalized messages attract more attention than default messages, and are thus worth employing also in the online banking context. The study also provides some guidance as to what types of messages are suitable. However, this study was exploratory and there are several other variables that could be investigated in the context of personalized communication and services (e.g. customers' personal traits, various products and services, and different time periods and intervals for promotions).

5. Conclusions

Financial sector is a truly multichannel environment and several channels are available for customers. Finland is nowadays one of the pioneers in the adoption of online banking. In addition, ATMs are used frequently. Applications for electronic payments and automatic accounting are developed, mobile financial services are examined, and tools for management of personal finance are being implemented. Several wealth management applications exist abroad, some offer personal money management for individual consumers (e.g. www.mint.com), or comprehensive wealth management packages aimed at financial advisors (e.g. www.emoneyadvisor.com).

Personalization of communication and services in a multichannel environment is a familiar phenomenon for contemporary consumers. We receive unsolicited direct mail and e-mail that addresses us by name and persuades us to try products and services claimed to be suitable for us. Especially social media platforms have turned to advertising (Clemons, 2009); for example, Facebook addresses us with promotional messages that use our name, age and gender prominently in the promotional texts. We receive sales calls from sales representatives of outbound marketing companies that have access to our personal information and previous purchase history. My dissertation examines whether consumers accept personalized marketing tactics in the financial service context.

In this concluding chapter of the dissertation I draw together the theoretical insights and practical implications induced by this study. Furthermore, I discuss the limitations of the study, outline an agenda for further research and reflect myself as a researcher.

Several perspectives were adopted in the investigation of the use of ICT in the interaction between consumers and financial service providers. This dissertation contributes to the discourses on 1) multichannel customer behavior in the financial service context; 2) personalization research in general; and 3) bank marketing by examining personalized promotional messages in the online banking context. The guiding principle of this dissertation has been the context-specificity of research which is underscored by, for example, realistic research tradition. Previous research has emphasized the unique nature of financial services; especially wealth management decisions are far-reaching and influence the well-being and future earnings potential of individuals. The global financial crisis that affected negatively the wealth of both professional and individual investors reminded us of the risks attached to financial decisions. Even though this dissertation

concerns the use of ICT in the customer - FSP interaction, the multichannel nature of the financial sector requires a wider examination by also taking into account the offline characteristics of the interaction.

Figure 7 overviews the themes of each essay and the main emphasis of the studies. The first essay was a broad introduction to the interaction between the FSP and customers and it covered issues regarding trust, multichannel service delivery and personalization. The research findings emphasized the different manifestations of trust in the financial context. Essay two focused on the customer preferences in the multichannel service delivery. The third essay provided an overview of the concept of personalization which was the main research topic in the fourth and fifth essays. Essay four examined personalized communication in the multichannel context and essay five built on the findings of the fourth essay, focusing on the online banking environment.

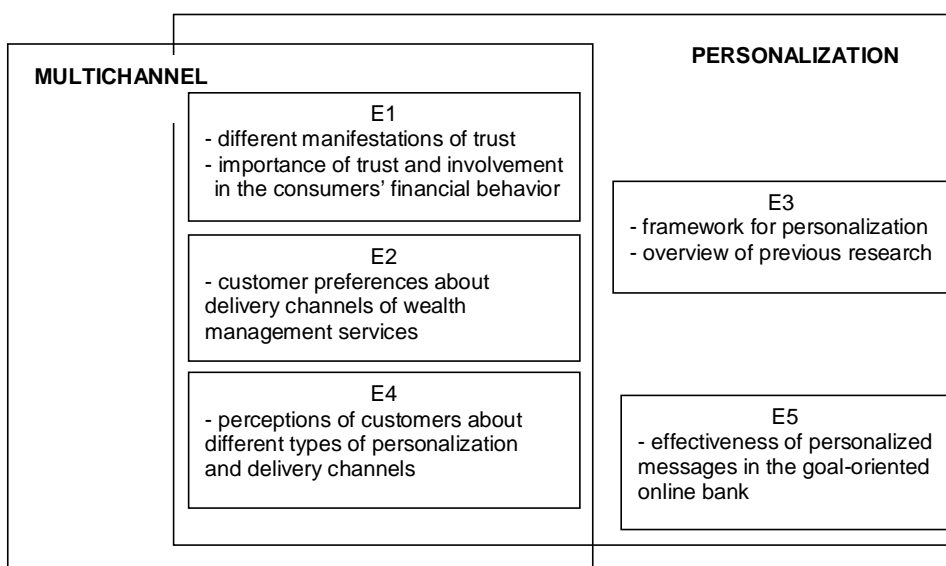


Figure 7: Overview of the themes of the essays.

Customers prefer multichannel service delivery both in the daily monetary and in the wealth management contexts. In the daily monetary affairs (paying bills and checking

balances), extensive online bank usage is common in all age groups (Statistics Finland, 2008). In wealth management, multichannel service delivery is preferred, but the emphasis is on personal service. Furthermore, clearly different customer groups prefer either personal or electronic service delivery. Age, gender and asset distribution are important variables in explaining the usage of different channels. Younger males owning shares and stocks preferred electronic services more than older, female and those with no holdings in shares. Furthermore, the customers associated the channel attributes; personalization, security and convenience with personal service delivery. In this study, customers who use predominantly electronic channels feel that they have not as strong a relationship with their FSP as those customers who use predominantly personal channel in the interaction. FSPs should invest in the building and strengthening the relationship with these “easy” customers who are not seen in the branch offices.

No common statistics are available regarding the channel use of wealth management services. In addition, they have seldom been studied from the multichannel view. The main practical contribution of the multichannel research is that it sheds light on the frequency of use of personal and electronic service, and to the attributes that are associated with the delivery channels in the wealth management context. Furthermore, the research shows that customers who have different levels of trust in financial institutions and involvement in investing also diverge in their use of information channels.

Despite the worldwide financial crisis that started in 2008 wealth management is seen as the growth area in the offering of financial institutions. Hence, the challenge of finding suitable service channel combinations will intensify. Because multichannel strategy emerged as the most preferred channel choice, electronic and personal channels should not be developed in silos but the development efforts should be integrated. FSPs could offer services to a larger number of customers and provide more comprehensive and more integrated services to cover consumers’ wealth management needs as a whole. Integrated multichannel service delivery offers several rewards and challenges. The management in financial companies has traditionally been based on functions and product lines. It will be challenging to change the logic so that the customer experience and her/his situation is the starting point in the service development. The ideas of the service-dominant logic, service science and service design with suitable tools, for example service blueprinting, will be needed in the planning and implementation of integrated services.

Personalization was studied at several levels in this dissertation. Essay three was a

conceptual paper and provided an overview of the previous personalization research. The research contribution of the study was a categorization framework of personalization, customization and mass-customization research. The framework is based on the user involvement and on the initiator of the personalization process. The aim of the framework is to provide clarity to the definitions since the multiplicity of conflicting definitions and terms may actually slow down the development in the field.

Nowadays, information technology offers possibilities for automated and personalized service delivery. However, customers do not perceive the present electronic wealth management services personalized. It is not sufficient that the service carries the information on real and financial holdings of customers. Also the information provided by the FSP (e.g. informative or promotional messages) should fit the personal situation of the customer and the electronic environment. For example, a more personalized experience could be offered with a tool that aggregates the customers' financial transactions to show the financial status and the allocation of wealth automatically, divided to different asset classes, accompanied with relevant information concerning those asset classes. There was a follow-up study to the study presented in essay one (Sunikka et al., 2010, Sunikka and Peura-Kapanen, 2008). The main result of the study showed that consumers are willing to use more personalized wealth management tools in the electronic environment. Consumers wished to benefit from the service as an educational tool, and for learning about different financial scenarios. However, online service triggered privacy worries even though the typical online bank was perceived as safe. Consumers were also worried about FSPs using customer information for sending unsolicited promotions and would thus have preferred the provider of the comprehensive financial planning tool to be a neutral party.

In the empirical personalization essays the type of personalization and the context of personalization were important determinants of the acceptance of personalized messages. The focus of the research was on the perceptions, attitudes, preferences and the actual behavior of online bank customers. The main theoretical contribution of the personalization studies was the divergent impact of the different types of personalization. If self-referent personalization was employed, customers attended to the messages, and a heuristic rule of the suitability of the messages was evoked. When preference-matching was adopted, a central route of elaboration was evoked. Personalization of messages can also cause concern and irritation, especially when self-referent information was included in the messages. Customers were mostly worried about who has access to their personal

information and why is it used in promotional messages.

In the research examining the effectiveness of personalized marketing messages the results showed that the click-through rates for the personalized banners were higher than for default banners in all three field experiment groups. Regarding the effectiveness of the personalized banners, the pull-percentages were better than in direct mail marketing promotions in two of the three cases studied. For bank marketing practitioners this study offers confirmation that personalized messages attract more attention than default messages, even in a goal-directed utilitarian environment. The study also provides some guidance as to what kind of messages are perceived as suitable in the online banking context.

The previous personalization research has focused on the internet environment, whereas this dissertation contributes to the theoretical discussion by showing the need for investigating multiple channels simultaneously in order to understand the in-depth views of customer preferences in the multichannel environment. Even though direct mail is generally believed to be disliked by customers, the customers seemed to be happy to receive messages also through traditional channels since electronic channels were perceived to include privacy and security threats. Furthermore, the context-specificity of the acceptance of promotional messages is an under-researched area to which this research has implications. This research design enabled the comparison of the preferences of customers regarding various messages in different channels. The multichannel preference results offer guidance for marketing managers when they are considering the channel choices for marketing promotions.

In summary, the interaction with the FSP and customers starts with trust - trust with the financial structure, legislation and procedures. However, institution-based trust is not enough but there must be trust in the interpersonal relationship between the FSP and the individual customer. Furthermore, features that build trust differ in the online and offline contexts. Traditional banking tasks are conducted increasingly online. This research shows that wealth management is carried out in the multichannel environment, and consumers expressed willingness to use increasingly complex wealth management services online. However, not all customers are as willing to turn to electronic interaction; the majority of customers still prefer predominantly personal wealth management service. When promotional and personalized push-communication between the FSP and customers was examined, the results uncovered that personalization is a double-edged

sword, it can attract attention, but especially self-referent personalization can be perceived as intruding. FSPs should plan personalized promotion carefully because the financial marketing is based on trust and on the credibility of promises. The findings on experiments with genuine customers in the online banking context suggest that personalized online communication can be more effective than general online communication or personalized offline communication. Customers are willing to use ICT for conducting their financial affairs and interacting with the FSP. However, questions about who is initiating the contact, through which channels and with what kind of messages are especially relevant in the financial services contexts because the norms about acceptable interaction behavior seem to be stringent in the financial services context.

5.1 Limitations of the Research

No research is without limitations and I next discuss the limitations that can be found in the essays that contribute to this dissertation. It should be acknowledged that only Finnish financial markets were examined and since Finnish markets have some unique characteristics, care should be taken before generalizing the results to other countries and cultures. Finnish financial markets differ from other national markets in at least in two respects: Finnish consumers are active users of online-banking: 72 % of the population use online banking (Statistics Finland, 2008). On the other hand, Finnish markets are fairly undeveloped in the wealth management field. In addition, Finns are, in general, satisfied with their banks (EPSI, 2008; 2010). Furthermore, a fairly homogeneous group of customers from only one Finnish FSP was surveyed in essay two, thereby limiting the generalizability of the results.

In the questionnaire, the number of items for the channel and relationship questions was restricted. However, according to Drolet and Morrison (2001), one-item constructs are not necessary harmful in service research. According to them, multiple-item measures represent the information-reliability trade-off between being able to ask customers two different questions once (more information) and the same question twice or more (greater reliability). They (ibid.) claim that the second or third item contributes little to the information obtained from the first item. Furthermore, added items can aggravate respondent behavior (ibid.). For example, Shankar et al. (2003) used one-item constructs in one of the pioneering multichannel studies, and stated the reason being the need for a

short questionnaire.

In addition, Consumer Panel members of the National Consumer Research Centre were the discussants in the consumer focus groups presented in essay one. They might differ from an average consumer. It is justifiable to use Consumer Panel members in research because they are eager to speak out in consumer issues, but the results gained through focus group discussions and interviews do not lend themselves to generalization. Furthermore, the focus group participants in study four were asked to consider themselves as imaginary customers that have various needs, or imagine that they have a certain sum of funds in their bank account. These requirements might have been difficult for some participants. On the other hand, the chance for customers to express the channel that they preferred and disliked – combined with justifications in their own words – gave depth to the empirical results. In addition, genuine customers of the bank were invited to the focus group interviews making the results more credible. However, the real situations that customers face are impossible to replicate in experimental settings. Only real-life observations and longitudinal consumer diaries might reveal how customers interact with hundreds of messages that they face every day, and what aspects of messages attract attention. One limitation of the fifth essay was that no questionnaire was employed to inquire more detailed information about the attention, elaboration and choice of customers. A questionnaire would have provided some answers to the presumptions and better metrics, for example for the attention variable.

With regard to the conceptualization of personalization in essay three, the selection of the electronic database limited the results to some degree. The ISI Web of Science is regarded as a high-quality electronic database that is commonly used in research evaluations. It is very representative for technical and technological journals; however, several business journals (e.g. bank marketing, advertising or communication journals) are not included in the electronic database, thereby biasing the search results toward the technical point of view of personalization and mass-customization research streams.

The limitations of the study have to be reflected against the dominant perspective of this study. According to critical realism, the aim of research is not to generalize but to find “everyday” causal relationships and underlying mechanisms of phenomena.

5.2 Avenues for Further Research

More studies should focus on finding out how financial service offerings should be combined and provided through various channels, and what kind of services are regarded as suitable for electronic channels. The concept of relationship strength should be distinguished from related concepts, such as trust, loyalty or commitment. The research efforts so far have mainly focused on B2B context, and the notion of relationship strength should be elaborated in the B2C context. The association of the strength of the relationship and the mode of communication and channels used for communication between the company and the customer is an interesting stream for future research.

Furthermore, investigation into the increased use of the internet, especially social media, would uncover the opportunities of such media in different stages of the consumer decision-making process: information search, formation of a consideration set, purchasing and post-purchasing of service. Is social media influential when young adults choose their first FSPs (banks or insurance companies) or do they mainly follow the choices made by their parents; how do consumers perceive empowerment in e-channels; and what mechanisms cause them to feel empowered, are questions requiring further research.

Personalized promotional messages were examined in two essays presented in this dissertation. In addition, personalized services are an interesting and fruitful area for further investigations. Besides e-financial services, e-health and e-government are areas in which more personalized and relevant customer experience would increase the perceived efficiency of the service and diminish the frustration of users with these services. Furthermore, service design, and in particular, persuasive systems design methods could be useful in building up systems that would help consumers to understand and to manage their financial affairs better. It is very seldom that only one channel is used by customers, thus the multichannel nature of interactions has to be taken into account. In addition, the integration of the customer interface and back-office functionality of different channels is of utmost importance, and should be included in the research design of future studies. Furthermore, the associated organizational changes that are imperative in the change process require more attention.

5.3 Reflections on the PhD Journey

According to several research approaches, also consistent with critical realism, it is imperative that a researcher reflects on her own assumptions about the research and about herself as a researcher. As Malterud (2001, 483-484) put it: "A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions". Reflection is also a part of learning, and my experiences during five years as a PhD Candidate have certainly been a learning process. I started my PhD studies after having worked for over ten years in the financial sector; and it is thus important for me to carry out research with implications for practice. Consequently, most of the empirical material was collected in research projects with genuine companies and customers. However, working with companies as research partners is somewhat complicated because timetables and the focus in the research projects can diverge between academia and practitioners.

My background in business had both benefits and drawbacks when reflecting on my work as a researcher. I had the mindset of a financial professional and knew the financial service environment well, but was less acquainted with research work. Furthermore, my previous studies in marketing directed my research interests into consumer and service marketing research. ICT, and especially the internet has fulfilled my utilitarian needs for information search and the efficient and convenient conduct of tasks, whereas the hedonic function of the internet has not been so meaningful to me. Thus the utilitarian bank environment has been a natural context of my research.

My main research question is wide, and several answers can be given based on the approach one takes to the phenomena. Initially, I was more interested in the "pull-approach", the new ways for customers to take the initiative, to be active and to search for information. However, that part of my research was not included in the dissertation. Even though the essays that contribute to the dissertation have improved following the comments of reviewers of conferences and journals, the review process has forced me to focus on reporting certain results so that the interconnections between the essays are less obvious than they would have been if I had chosen to write a monograph or published working papers. Perhaps the biggest challenge in my PhD journey has been combining the themes of the five essays under one dissertation.

I became acquainted with critical realism at a fairly late stage of my studies, and could thus not design my research to follow the principles of that approach. I have regarded different methodologies and methods worthy of trial. The interplay between qualitative and quantitative methods has been especially rewarding in the research process. I particularly enjoyed interpreting the “traditional” focus group discussions. However, qualitative research is hard to report in a credible way and to condense into a length of a conference paper or journal article. Quantitative methods, on the other hand, require extensive preparation. Having been involved in the preparations of three survey questionnaires, it seems that it is very difficult to construct a good questionnaire, and perhaps impossible to construct one that is a perfect!

It is interesting that the aspects that emerged as being important in the FSP-customer interaction were equally important in my PhD journey. It is imperative to find colleagues or supervisors whom you can trust. Weaknesses in communication between research partners might destroy even the best research ideas and projects. I do not perceive my PhD as the final goal but a “license to research” in which I hope I shall have opportunities in the future.

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Original Essays

Essay 1: Anne Sunikka, Liisa Peura-Kapanen, Anu Raijas (2010) Empirical investigation into the multi-faceted trust in the wealth management context. International Journal of Bank Marketing, 28(1):65-81.

Special Issue: Trust in financial services: new theories and insights

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Empirical Investigation into the Multi-faceted Trust in the Wealth Management Context

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Type of Paper

Research paper

Purpose

The purpose of this paper is to study the many manifestations of trust in the wealth management context in Finland. This empirical paper examines and contrasts how trust is perceived by financial experts and consumers in wealth management in general, and in the investment context, in particular.

Design/methodology/approach

Qualitative methods; focus group discussions and interviews were employed.

Findings

Financial experts and consumers emphasised different facets of trust. The level of trust towards financial service providers and financial advisors, and the level of involvement in investing served to differentiate the consumers into four distinct groups. These are presented and discussed.

Research limitations/implications (if applicable)

Although the methods utilised were purely qualitative and the study was limited to Finland, the results offer interesting and new scientific knowledge about perceived trust, and how it can be used in market segmentation and developing customer service.

Practical implications (if applicable)

The four quadrant matrix can assist financial companies in building customer relationship and in improving the customer service.

Originality/value

Qualitative research provides insights into consumers' thoughts that are difficult to obtain with quantitative data gathering and analysis. In our study, consumers expressed their opinions and thoughts in their own words. Furthermore, the dyadic comparison of opinions of consumers with experts' views about consumers' motives and behaviour contributed to a deeper understanding of the relationship between consumers and financial service providers

Keywords

Trust, Financial Services, Involvement, Wealth Management, Customer Matrix

1. Introduction

The financial service sector has grown rapidly during the last 20 years; new actors have entered the market, the industry has internationalised, information and communication technology (ICT) has made new solutions possible, and new financial instruments have been developed. These developments are challenging, and therefore it is not surprising that consumers face several difficulties in understanding the complexity of financial services: instruments are often complicated, and comprehending and comparing financial instruments is time-consuming and requires expertise and effort (e.g. Bell and Eisingerich, 2007; Harrison et al., 2006). Because of the complexity of financial issues, consumers often rely on financial advisors to help them with their financial questions, particularly regarding matters that include high risk. Lately, additional information sources and channels, especially the internet, have also become increasingly important.

The next growth area for financial service providers (FSPs) is expected to be wealth management services for 'ordinary' customers; that is, those with moderate wealth. For the purposes of this study, we understand wealth management broadly as those activities focusing on financial issues relevant to households, not just saving and investing. Heffernan et al. (2008) suggest that rather than selling relatively loosely-linked wealth management products, FSPs should focus on offering personalised solutions that promote customer relationship and trust.

The aim of this paper is to understand and describe trust in the wealth management context. We do this by firstly comparing the opinions and perceptions of dyadic groups of consumers and financial experts. Secondly, we draw out the different facets of trust that these two groups of informants regarded as important. Thirdly, based on the empirical data, we construct a matrix relating to consumer behaviour in the investment context. This is a two dimensional matrix: the first dimension represents trust in the FSP and in the financial advisor and the second the extent of involvement in investing and knowledge about investing.

We organise the paper as follows. We first review the literature about trust, involvement and related concepts, with a focus on the financial industry. Thereafter we outline the methods of the study, following which the results are reported. A discussion of the findings is then presented. Finally we conclude the paper with limitations of the study and consider the potential for future research.

2. Previous research

Trust has been defined in various disciplines each emphasizing different dimensions. Only few studies have combined perceptions and definitions from several disciplines (e.g. Blomqvist, 1997; Mayer et al. 1995; McKnight and Chervany, 2001) in order to produce a comprehensive understanding. Several studies have discussed trust in services (Coulter and Coulter, 2003; Sillence et al., 2006), including some that have considered the financial context (Balasubramanian et al., 2003; Cox, 2007; Ennew and Sekhon, 2007; Harrison, 2003; Heffernan et al., 2008). Trust is seen as one of the most important components in customer relationships (e.g. Crosby et al., 1990; Coulter and Coulter, 2003; Morgan and Hunt, 1994).

In their definition of trust McKnight and Chervany (2001) consider its separate facets; disposition to trust, institution-based trust, trusting beliefs, and trusting intentions. These aspects lead to trust-related behaviors. Table 1 presents descriptions of the various facets of trust.

Table 1: Descriptions of different facets of trust (based on Mayer et al., 1995; McKnight et al., 1998; McKnight and Chervany, 2001).

Concept	Definition
Disposition to trust	This construct derives primarily from disposition or trait psychology. It is the extent to which one displays a consistent tendency to be willing to depend on others in general across a broad spectrum of situations and persons.
Institution-based trust	The construct comes from sociology; people can rely on others because of structures, situations, or roles that provide assurances that things will go well. This consists of structural assurance and situational normality.
- <i>Structural assurance</i>	Socially or legally sanctioned institutions impose norms of performance and integrity of economic agents (i.e. guarantees, contracts, regulations, promises, legal recourse, processes, or procedures).
- <i>Situational normality</i>	Everything seems to function normally and to be in proper order.
Trusting belief	The trustor's perception that the trustee has attributes that are beneficial to the trustor. The main elements are belief in competence, benevolence and integrity.
- <i>Belief in competence</i>	One believes that the other party (trustee) has the ability or power (e.g. technical capabilities, skills and know-how) to do for one what one needs done.
- <i>Belief in benevolence</i>	One believes that the other party (trustee) does well to the trustor in a dyadic relationship, aside from an egocentric profit motive.
- <i>Belief in integrity</i>	One believes that the other party (trustee) adheres to a set of principles that the trustor finds acceptable (e.g. makes good faith agreements, tells the truth, acts ethically, and fulfils promises).
Trusting intentions	The trustor's willingness to depend on a trustee in a given situation.

Trusting beliefs are trustor's cognitive beliefs that result from observing the trustee's actions, and attributing the causes of the behaviour to the trustee's internal trust-related characteristics (Komiak and Benbasat, 2004; McKnight and Chervany, 2001). These cognitive beliefs represent cognitive trust. However, a rational choice perspective is not enough because decisions based on trust usually involve both reasoning and feeling (Komiak and Benbasat, 2006). Several studies distinguish between the cognitive and emotional/relational facets of trust (e.g. Dimitriadis and Kyrezis, 2008; Ennew and Sekhon, 2007; Heffernan et al., 2008). Emotional trust is defined "*as the extent to which one feels secure and comfortable about relying on the trustee*" (Komiak and Benbasat, 2004, 187).

Due to the complexity and long-time horizon of many financial services, consumers often feel uncertainty about choices relating to financial matters. Harrison (2003) has listed the characteristics of financial services: high intangibility, information asymmetries between FSPs and consumers, and a heavy reliance on the credence qualities of products and services that can lead to uncertainty. Consumers' trust in FSPs, that is, in companies, advisors, products and services, reduces uncertainty and the perceived risks attached to financial decision-making. It is particularly in financial services that customers utilise ICT for conducting their financial tasks. In the 21st century, the focal area of banking research has been the adoption of online banking (e.g. Branca, 2008; Casaló et al., 2007; Colgate and Smith, 2005; Herington and Weaven, 2007; McKechnie et al. 2006), and the investigation of trust and perceived risks associated with online applications (e.g. Balasubramanian et al., 2003; Casaló et al., 2007; Grabner-Kräuter and Faullant, 2008).

Information is a central element in decision-making (e.g. Bastardi and Shafir, 1998). This is because more information generally increases confidence (Gill et al., 1998). If information is accessible, and the consumer is able to manage the information, the degree of uncertainty is lower (Beckett et al., 2000). People are selective about their information sources: some prefer oral information, some written; some lay, and others authoritative information. The perceived reliability varies between the sources of information. When searching for information for decision-making purposes, consumers evaluate the cost of this activity and the quality of the information. The cost of this search is influenced by the access of information; ease of access; the quality, relevance and nature of the information, and a person's ability to search for such information (Hertzum et al., 2002). In the case of financial services, consumers are often dependent on FSPs for advice because consumers lack the necessary know-how for making independent decisions.

The definition of trust in the financial services context put forward by Ennew and Sekhon (2007, 63) was considered to be relevant to this study: "Trust is individual's willingness to accept vulnerability on the grounds of positive expectations about the intentions or behavior of another in a situation characterised by interdependence and risk". The definition encapsulates both the cognitive and emotional elements of trust (cf. Komiak and Benbasat, 2004). It also emphasises the importance of financial decisions that have a significant influence on the well-being of consumers, especially in the case of complex and long-term savings and investment instruments.

Saving and investing is characterised as a high involvement area of financial services compared to other financial services (e.g. Aldlaigan and Buttle, 2001; Foxall and Pallister, 1998). Relatively little research has been directed to this area of financial services (see, however Balasubramanian et al., 2003; Ding et. al., 2007; Falk et al., 2007). Mittal (1989, 150) defines involvement in the purchase decision as "*the extent of interest and concern that a consumer brings to bear on a purchase decision task.*" Zaichkowsky (1985, 342) understands involvement as "*a person's perceived relevance of the object based on inherent needs, values and interests*". Involvement is conceptualised as a uni-dimensional concept (Zaichkowsky, 1985); a two-dimensional concept with rational and emotional dimensions (Foxall and Pallister, 1998) or multi-dimensional concept (Laurent and Kapferer, 1985). Involvement is considered to be either enduring, that is, there is a persistent relationship, or situational, in other words a temporary phenomenon in which the interest of the consumer declines with the passage of time (Pallister et al., 2007).

Even though trust has been studied by researchers from several disciplines, it has often been defined fairly narrowly. This may explain why the results of previous studies have often been contradictory. The aim of this paper is to understand and describe different facets of trust in the wealth management context. In the financial services sector, especially relating to complex wealth management services, consumers' trust in FSPs and financial advisors combined with consumers' involvement in wealth management are important determinants of consumers' financial behaviour.

3. Methodology

A two year exploratory research project with scientific research institutions and financial industry practitioners was set up in Finland in 2006. The main objective of the project was to gain a deeper understanding of the motives of consumers underlying wealth management behaviour, and to examine the opportunities for a new kind of wealth management service targeted at private customers. The project consisted of several, qualitative and quantitative studies.

The Finnish financial market is characterised by high online penetration: according to Statistics Finland (2008) 72% of the population uses an online bank application. Finnish bank customers are, in general, highly satisfied with their banks (EPSI Finland, 2008) and in a comparison of the 27 EU countries have the highest confidence in banks (Eurobarometer, 2008).

We present the results of a qualitative study that aims at understanding and describing trust. In this study, wealth management was viewed broadly. A distinctive feature of the study was the dyadic research methodology: we collected data from two independent sources, from consumers and financial experts, and compared the results of these two sources. Dyadic research has mainly focused on the B2B environment (Holmlund-Rytönen and Strandvik, 2005; Paulin et al., 1997), but there are also examples in B2C research (Pollak, 2001; Wright et al. 2000), and in the financial context (e.g. Diacon, 2004; Törngren and Montgomery, 2004). We asked consumers and financial experts about consumers' perception of wealth, the motives for accumulating wealth, and the perceived risks related to wealth management. In addition, customer service, including face-to-face and electronic service options, were discussed.

We commenced our research with focus group discussions of consumer panelists (6 groups, 33 participants, 16 males and 17 females, an average age of 50 yrs, age range 27 – 78 yrs), and continued with expert interviews (11 interviews, 8 males and 3 females, average age of 41 yrs, age range 30 – 46 yrs, mostly working in managerial positions). The focus was on uncovering how the financial experts perceived consumers' opinions related to wealth management. For clarity, in the following, the term "financial expert" is employed for the interviewees. Focus group participants described representatives of the FSP who work at the customer interface as "financial advisors". We acknowledge that the material retrieved from interviews and focus group discussions are not similar. In interviews, an interviewer can be more in control of the process of interviewing, whereas in focus groups, the discussion flows fairly freely and the participants focus on issues they find important. In addition, the discussants use their own expressions. In choosing focus groups as our data collection instrument, free associations and interaction between the participants were the aspects of principal interest. Both the consumer focus group discussions and expert interviews lasted an average of 1.5 hours. They were recorded and transcribed for analysis. The texts were analyzed by two researchers, first separately and then jointly, and NVivo 8 software was employed for coding the recurring themes of the discussions and interviews. Furthermore, 28 of 33 consumers filled a short questionnaire regarding their interest and experience with some financial instruments. Because the gathered data was in Finnish, the quotations presented in this article were freely translated into English.

Trust and the different manifestations of trust emerged as important issues. Consumers brought up trust spontaneously in their discussions, even though the moderator did not specifically ask about it. In other words, the importance of trust became apparent as an emerging theme when the content of the textual material was analyzed. It was for this reason we decided to focus on trust: how it is perceived, and how it influences consumer behaviour in the financial service sector, with particular reference to the investment context.

4. Results

The dyadic comparison of the empirical material revealed the similarity of the perceptions and opinions of consumers and financial experts about wealth management. As most of the central themes in wealth management were seen fairly similarly in both groups we concluded that the financial experts interviewed understood the motivations and expectations of their customers fairly well. However, when discussing saving and investment, we found a remarkable difference between the groups relating to trust; especially which facets of trust are important to the two groups. Financial experts emphasised the institution-based trust that can be found within the financial services infrastructure; that is, trust in protective structures – guarantees, contracts, regulations, promises, legal recourse, processes, or procedures. They referred to several in-house surveys that confirmed consumers' high degree of trust in financial institutions.

The most common characteristics of the trustee that were remarked upon in the focus group discussions were those of competence, integrity and benevolence. This is consistent with previous studies (e.g. Crosby et al., 1990; Mayer et al., 1995). Among consumers, opinions about trust diverged. The characteristics of the financial advisor (the trustee), and the relationship between the financial advisor and the consumer were the facets of trust in which the variety of opinions among the consumers was the greatest. The study revealed the complexity of trust: many consumers expressed trust in their own financial advisors, but distrusted financial advisors in general. This general distrust was attributable to negative publicity in the mass media - consumers themselves might have had some negative experiences, but mostly they had read or heard about occasions that caused them to doubt the competence, integrity and benevolence of FSPs and financial advisors.

Wealth management instruments are considered to be high-involvement instruments (Aldlaigan and Buttle, 2001; Foxall and Pallister, 1998). However, in the discussions, consumers' involvement in making investments differed considerably. Based on Zaichkowsky (1985), we defined involvement as consumers' interest in investing, and willingness to immerse in information search and learning about the subject.

In the spirit of Weber's (1949) ideal types that depict the underlying characteristics that determine consumer behaviour within a particular environment, we divided consumers into four groups using trust in the FSP, and particularly in the financial advisor, and involvement in making investments as separate dimensions. In contrast to Beckett et al. (2000) who constructed a consumer matrix based on earlier research, we arrived at the matrix after the analysis of consumer focus group discussions and expert interviews. According to the empirical results, involvement and customers' willingness to acquire information and expertise were brought into the involvement dimension, and trust in the FSP and a financial advisor represented another dimension. Figure 1 depicts the consumer matrix, and is followed by a discussion of the characteristic of each quadrant.

Trust	high	2. Civil duty saver Low involvement High trust	4. Convenience-driven investor High involvement High trust
	low	1. Uninterested bystander Low involvement Low trust	3. Cost-aware investor High involvement Low trust
		low	high

Involvement

Figure 1: Consumer matrix in the investment context.

1. Uninterested bystander (low trust, low involvement)

The uninterested bystander group had a variety of reasons for being passive in the investment markets. The most obvious of these were the lack of funds, time, knowledge or desire to learn. Few participants talked of their distrust of bank managers in general, and attributed the change in the role of bank managers to the increased use of computers in the management of financial affairs.

In the 1970's, bank managers were considered as friends and partners in cooperation, but it has changed nowadays because consumers can do anything and everything with computers. (consumer, male, 67)

A participant who valued owner-occupier housing more than financial wealth explained that she did not believe that the negotiations with the financial advisor are of high quality, and she also distrusted the financial instruments that are offered by financial advisors.

I am suspicious of funds and shares. I have my ethical values and I do not want to invest in companies that reap benefits from child labour or discriminate against females. (consumer, female, 33)

Financial experts regarded this consumer group as lazy and inefficient. However, they also realised that finance-related issues are not the most important in consumers' everyday life. They pointed out that savings and investment products are so called "push products" in comparison to, for example, mortgages, which they consider to be "pull products".

2. Civil duty saver (high trust, low involvement)

The majority of the low involvement consumers trusted their financial advisors. Civil duty savers are people who are bounded rational (cf. Simon, 1957), and their heuristic rule is to trust financial advisors.

I would be willing to give my financial affairs into the care of somebody. I would appreciate somebody who would take a total view of my assets. Since I do not know anything about financial things I cannot even start asking... (consumer, female, 25)

These consumers were usually not willing to enhance their knowledge by engaging themselves in information search and learning about financial affairs. Some of them said that they do not even remember in which instruments they had invested.

A financial advisor persuaded me to invest in funds. However, I do not quite remember in which fund I invested my money - I am not really interested in financial affairs... (consumer, female, 70)

The investment sums are often debited directly from consumers' account and civil duty savers do not have to undertake any action; they have done their "civil duty" and have invested money rather than left it in their account.

From the perspective of financial experts, face-to-face meeting with financial advisors facilitate the learning process of consumers, and financial advisors are the most influential source of information regarding financial matters. Financial experts stressed that consumers should view the information found on the internet with scepticism, and they should not follow the examples of friends or self-proclaimed gurus on discussion boards without considering their own situation in life.

The first source of information, the reliable one, is the financial expert...In important decisions, one turns to an expert for confirmation ... (expert, female, 36)

3. *Cost-aware investor* (low trust, high involvement)

The need for continued information search and learning were emphasised by the cost aware investors. The typical activities of this group are the active following of several investment instruments, resulting in expertise that raised the confidence of an individual consumer concerning their own ability to act. The cost aware investors represent the closest group to the rational actor portrayed in economic models. They use several information sources, but are reluctant to trust the recommendations of financial advisors. Rather, they prefer turning to the internet since it offers impartial information and efficient tools for information gathering and carrying out of transactions.

The internet is a splendid source of impartial information – I compare different writings found on the internet. (consumer, male, 44)

Cost-aware investors often commented that they do not trust the expertise of financial advisors (trust in competence), and they also believe that financial advisors are mainly interested in their own commissions, rather than have the customers' benefits in mind (trust in benevolence).

I don't believe that one can get impartial advice from banks, since they are earning high commissions from selling their own products. (consumer, male, 50).

Pushy marketing practices and unclear ways of presenting fees and returns also diminished trust.

When I think about how I started...it was difficult to get to the truth from all the marketing talk. They (banks) are, after all, selling funds and they get their share and they have won anyway...I had to find what is the truth in my mind...(consumer, male, 33)

Even experts admitted that commission rates in Finland are higher than in most of the other developed countries and predicted a trend for lower rates.

I think that the commissions are lower in more developed financial markets. This is something to which people are increasingly paying attention, which will in time put pressure on the level of commissions. (expert, male, 44)

4. *Convenience-driven investor* (high trust, high involvement)

Convenience-driven investors trusted their own FSP and their financial advisors. One participant acknowledged that even though the commissions charged are fairly high, banks have to be compensated for their work. Wealthier investors pointed out that property brings worries because they have to manage that source of wealth frequently, and it is often on their mind. Some discussants had outsourced the management of their financial assets to a wealth management company, and were satisfied with the convenience that this brought.

I do not have to spend all the time following markets and getting nervous. Professionals take care of my assets and take their own share of the profits... I just want to be free from the anxiety! (consumer, male, 67)

This group of consumers also used a variety of information sources and had acquired both simple and complex financial instruments.

In our analysis of the data we found four themes that applied to the four different consumer types. These are: information sources and channels; self-estimation of financial expertise; relationship with the FSP; and complexity of financial instruments. Table 2 presents a summary of the results.

Table 2: Description of consumer groups according to investment behavior

	<i>Information sources and channels</i>	<i>Self-estimation of financial expertise</i>	<i>Relationship with financial service providers</i>	<i>Nature of financial instruments</i>
<i>1. Uninterested bystander</i>	- No information search since financial matters are not relevant	- Non-existent	- No relationship with a financial advisor	- None or simple instruments
<i>2. "Civil duty" saver</i>	- No desire for extensive search - Word-of mouth	- Limited knowledge	- Follows recommendations - Convenience more important than fees	- Rather simple instruments (e.g. regular investments in mutual funds)
<i>3. Cost-aware investor</i>	- Several information sources, internet important	- Fairly advanced	- Distrust - Prefers own decision-making - Fees and return important	- Several instruments, and complex
<i>4. Convenience-driven investor</i>	- Several information sources, including internet	- Fairly advanced	- Follows recommendations - Partial distrust - Convenience more important than fees	- Several instruments, and complex

5. Discussion

Trust is found to be paramount in shaping consumers' financial behaviour (e.g. Balasubramanian et al., 2003; Heffernan et al., 2008). In our study, different facets of trust were relevant to financial experts and consumers in the wealth management context in general, and in the investment context, in particular. *Dispositional trust* represents a personality trait that was not emphasised in our empirical data. *Trusting beliefs* and *trusting intentions* were intertwined in the consumers' discussions. Consumers talked about their interpersonal trust in the financial advisor, and how news in the mass media and personal

experiences had made them doubt the competence, integrity and benevolence of financial advisors. Consumers also discussed their feelings, thus emphasizing not only cognitive beliefs but also the emotional aspect of trust. The financial experts emphasized the *institution-based trust* in the financial infrastructure and financial institutions, and referred to structural assurance – trust that the established legislation and procedures had built up in the financial industry.

Consumers recognised the role of the financial advisor as a “servant to two masters” (the FSP and the customer), and believed that the financial advisor was more loyal to the employer than to customers. A financial advisor is, in effect, an agent to two principals, the employer and the customer. The principal–agent perspective aims to explain transactional arrangements between self-interested parties with incongruent goals in the presence of uncertainty (Pavlou et al., 2007). The perspective has been traditionally employed in the examination of employment relationships (e.g. Eisenhardt, 1989; Rees, 1985) where one entity (the principal) delegates work to another (the agent) who performs the work according to a mutually agreed contract. Pavlou et al. (2007) discussed the characteristics of the principal-agent perspective and justified its use in the buyer – seller relationship. All the characteristics apply to the financial advisor-customer relationship, too. Based on the inherent information asymmetry in the financial advisor-customer relationship, the advisor typically has more information than the customer on the seller’s financial characteristics, on the offered products and services, and on procedures and practices. This may create a bias on the advisor’s part to act in his/her own self interest rather than in the best interest of the customer. The actions of the employer are vital in this respect since the employer pays remuneration for the work and employs supervisory schemes to guide the actions of the financial advisor. Both the compensatory mechanism and supervision should be implemented so that they encourage the financial advisor to think about the good of the customer.

Trust in engineering issues did not seem to pose a problem for consumers in an ongoing relationship with the FSP, and with traditional online services. None of the consumers commented about security or privacy when they were discussing internet-based services. In fact, web services provided by financial institutions were not a subject that was widely elaborated upon in the discussions.

Investment-related services have been found to require a high and enduring degree of involvement (Aldlaigan and Buttle 2001; Pallister 2007). However, according to our empirical study, some consumers might feel a situational involvement at the time of purchasing, but their interest can fade after the purchase decision and they do not then follow the

performance of their investments. More seldom, consumers explained that they perceived investing as hobby and were emotionally involved.

Even though consumers are able to search and process information, several financial products are complicated and comparisons between them may be difficult, even for an experienced investor. In addition, consumers have to search for several types of information that impact the performance of financial instruments: for example, financial figures of companies, growth figures in the economy, commissions and fees, reputation of financial service provider. Consumers might be unable to interpret such information and what it means in their personal situation, and therefore the abundance of complex information might serve to make consumers unwilling to learn about financial services (Diacon and Ennew, 2001). According to Huhmann and Bhattacharyya's (2005) comparative research on mutual fund advertising, FSPs appear to rely on marketing cues such as size and volume of text in order to catch the attention of consumers, rather than providing the information necessary for optimal investment decisions (e.g. risk-return trade-off, credibility information, sales commissions, management fees).

Only few previous studies have applied a dyadic research methodology to the financial services context. Diacon (2004) and Törngren and Montgomery (2004) described the importance of the comparison of the perceptions of consumers and experts. An essential feature of our study is the dyadic research methodology that we have applied in a new way. In the study, we asked consumers about their perceptions of wealth, motives for accumulating wealth, and the perceived risks related to wealth management. Furthermore, we were interested in uncovering what financial experts assumed consumers think about wealth-related issues. We then compared the results of these two sources. If the perceptions of consumers and experts differ widely from each other communication between the parties suffers. However, both groups shared common perceptions regarding most of the central themes relating to wealth management. The main differences were found in the facets of trust that consumers and financial experts emphasised.

In previous segmentation studies on consumer financial behaviour, the underlying assumption has been that there is a trusting relationship between the FSP and the customer, however trust has not been explicitly considered. This study makes a theoretical contribution by presenting a new conceptualization of consumer behaviour in the investment context. In the following, we compare our matrix with previous models proposed by Harrison (1994) and Beckett et al. (2000).

Harrison (1994) presented a two-dimensional map of consumer behaviour in the financial sector. The dimensions are labelled *perceived knowledge* (PK), which takes into account the

individual's subjective assessment and how confident the individual feels about her/his knowledge, and the *degree of financial maturity* (FM) (Kamakura et al., 1991), which is dependent on the complexity of the financial products that the consumer has acquired. However, in our empirical data, we did not find consumers that fit the quadrant with low levels of knowledge and own, nevertheless, complex financial instruments. We doubt the usefulness of the financial maturity dimension in the financial consumer segmentation.

Based on a review of the literature, Beckett et al. (2000) identified broad attitudinal factors: *uncertainty*, labelled as customer confidence, and *involvement* that influence consumer behaviour. Consumer confidence is largely determined by perceptions of risk, which are determined by the complexity of the product being purchased and the certainty of outcome associated with that product. The other key determinant of consumer behaviour is a consumer's interest toward a product or a service. In this regard involvement incorporates customer control, customer participation and level of contact. In the context of financial services, Beckett et al. (2000) placed uncertainty and involvement on a continuum from low to high, and constructed a two-dimensional consumer behaviour matrix that represents four ideal consumer behaviour patterns. These are: no purchase, repeat-passive, relational-dependent, and rational-active. Beckett et al.'s (2000) matrix combined each quadrant with a certain group of financial services, suggesting, for example, that repeat-passive customer behaviour is common in choosing simple services such as a current account, whereas relational-dependent behaviour is attached to purchases of more complex products such as investments or pensions. Our empirical data emphasised the role of trust in the relationship between the FSP and the customer; therefore trust in the FSP was chosen as another dimension in our matrix rather than consumer confidence. In addition, our matrix was constructed based on consumers' opinions about a particular type of financial services; investment instruments. When comparing the quadrants of the two matrices, we find many similarities in three of the quadrants. However, in Beckett et al.'s (2000) repeat-passive quadrant the nature of the financial product – cheque account or choosing a bank - is emphasised, and thus the somewhat illogical combination of low involvement and high consumer confidence can be explained. According to our analysis of the consumers' discussions, interest and knowledge constituted the same dimension.

A small number of recent quantitative survey studies have categorised consumers into segments based on their money attitudes or behaviour in investment markets (e.g. Fünfgeld and Wang, 2009; Keller and Siegrist, 2006; Loibl and Hira, 2009; Nilsson, 2009; Wood and Zaichowsky, 2004). All of the quantitative models include either confidence (Loibl and Hira, 2009; Nilsson, 2009; Wood and Zaichowsky, 2004) or interest in financial matters (Fünfgeld and Wang, 2009; Keller and Siegrist, 2006; Loibl and Hira, 2009) in their list of variables.

Loibl and Hira (2009) used sources of investor information as segmentation base. Nilsson's (2009) study segmented socially responsible mutual fund investors, and trust in the actions of the FSP to behave in a socially responsible way was reported as one of the variables. In addition, Keller and Siegrist (2006) recognised the dynamic nature of segmentation; financial strategies of consumers are, after all, dependent on life cycle and, to some extent, on the marketing strategies of FSPs. Whereas quantitative studies have examined frameworks with pre-selected variables, our results emerged from the data. In this regard, we did not initially set out to examine trust, but this was the principal theme that emerged as important for the participants.

Managerial implications

Financial service companies need to plan their marketing and customer service to serve different customer groups in a suitable way. The consumer behaviour matrix developed in this study can be a helpful tool in the segmentation and development of customer service.

A central issue is how to reach those customers who are not interested in financial matters. Financial education is often designed to meet the people who are already interested in financial matters. As Fünfgeld and Wang (2009) noted, marketing campaigns do not reach uninterested customers because such customers lack the preliminary motivation. In our study, the *uninterested bystander group* is the most heterogeneous and the reasons for staying passive are several. The “lazy” consumers need an easy and uncomplicated way to invest their assets. O'Donoghue and Rabin (1999) attach the label “hyperbolic discounting” to consumers' passive behavior: people are impatient in the short term and patient in the longer term. Hyperbolic consumers want to start saving and investing eventually, but something always comes up in the short term that provides a better immediate reward. Saving can thus be subject to indefinite procrastination. Perceived distrust toward FSPs is more difficult to tackle, and accurate information, rather than marketing rhetoric, might be a more efficient method to convince consumers of the trustworthiness of financial companies. The task is challenging because both consumers' attitudes and behaviour require change.

Civil duty savers are the fairly “easy” customer group for FSPs. For this group, making only little effort is important and consumers follow the advice and recommendations of their financial advisors (cf. Beckett et al.'s repeat-passive and Harrison's financially confused). In addition, communication by word-of-mouth in their social environment is important. Selling situations are very sensitive; if difficult financial instruments are actively sold to trusting but fairly ignorant consumers, trust in the financial advisor might vanish if the financial

instruments do not perform as promised (e.g. decrease in the value of short-term mutual funds that were marketed as safe havens in turbulent times).

Cost-aware investors have a fairly negative attitude towards financial advisors (cf. Beckett et al.'s rational-active and Harrison's capital accumulators). These investors prefer using the internet as their information search and transaction tool. Because cost-aware investors are recognised as experts by their peers, it is important that they are served well so that they have no reason to spread negative remarks either by word-of-mouth, face-to-face or through electronic channels. FSPs could serve this customer group better by providing advanced transaction and analysis tools for self-service, and thus increase the loyalty of this group.

Convenience-driven investors appreciate professional advice and new ideas from their financial advisors (cf. Beckett et al.'s relational-dependent). A feeling of distrust might be evoked if a financial advisor does not appear to know the latest financial instruments or market developments, or does not have opinions other than those that the financial company's software offers.

Financial companies need to focus on human resource policies, training and internal marketing. A special emphasis should be applied to the training of financial advisors because they are key persons in trust building. A difficult issue that FSPs need to face is that bonuses should, at least partly, be paid based on service quality and not purely on the 'number of deals'. In addition, financial advisors should be provided with tools that are helpful in their consumer encounters but do not restrict the flow of the discussions between the consumer and the financial advisor. Guaranteeing the quality of the consumer encounter is vital – but this is difficult because financial services are complex. Following the distrust perceived by some of consumers, one strategy might be to increase transparency concerning costs, returns and risks. The attempt to obscure costs by bundling services might not be welcomed by consumers who would have difficulty in trying to understand and compare the offerings from various financial companies. However, some consumers who focus on convenience might indeed welcome the simplicity of bundled services. In addition, clarification of investment related facts in tables and graphs might ease consumers' cognitive burden brought about by trying to understand complex issues.

5. Conclusions

Consumers and financial experts shared the majority of the perceptions and opinions about wealth management. The greatest difference in the meaning of trust emerged in the investment context. Financial experts emphasised the institution-based trust in the well-functioning financial infrastructure and financial institutions. Consumers, on the other hand,

concentrated on the characteristics of the trustee. Trust in competence, integrity and benevolence were the facets that consumers mostly talked about. In our study, wealth management services were not automatically categorised as high involvement services, but the level of involvement differed among the discussants. When involvement was included in the matrix as a further dimension, four distinct consumer categories could be distinguished: uninterested bystander, civil duty saver, cost-aware investor and convenience-driven investor. The four quadrant matrix can assist financial service providers in building customer relationship and in improving the customer service, especially their effort to move customers from low trusting quadrants to more trusting groups.

Limitations and future research

No research is without its limitations and we freely acknowledge the limitations that can be found in our study. The results gained through focus group discussions and interviews do not lend to generalization. In addition, Finnish financial markets have certain characteristics that are not shared by the majority of the domestic financial markets in other countries. The consumer focus group discussants were members of the Consumer Panel, but it is justifiable to use the Consumer Panel because the members in the panel are eager to speak out in consumer issues. Despite the limitations, the results offer interesting and new scientific knowledge about perceived trust, and how it can be used in market segmentation and customer service.

The objective of this paper was to understand rather than test hypotheses or offer generalizations. Therefore, although we have presented a categorization of consumers, we cannot categorically state how many consumers belong to each group. However, we suggest that our study creates a good framework for a wider quantitative study in which such questions can be empirically tested. In this regard further studies could focus on more extensive data gathering by collecting information on the general level of consumers' knowledge, involvement, and trust in the wealth management context.

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**PREDOMINANTLY ELECTRONIC OR PERSONAL SERVICE
DELIVERY? A CASE IN THE WEALTH MANAGEMENT CONTEXT**

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PREDOMINANTLY ELECTRONIC OR PERSONAL SERVICE DELIVERY? A CASE IN THE WEALTH MANAGEMENT CONTEXT

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Abstract

Financial services have been a recurrent subject of a multichannel inquiry but investigation into the wealth management area is scarce. This paper intends to fill the gap and presents the results of a questionnaire directed at customers of a financial conglomerate. The objective of this research is to examine which variables influence consumers' channel preferences in the wealth management context, and to find out possible differences between the customers who prefer predominantly electronic service or personal service delivery. Logistic regression and t-tests are used in the analysis. The perceived channel attributes of personalization, convenience and safety, relationship strength, and the internet and wealth management knowledge influence the channel preferences. Typical wealth management customers prefer multichannel service delivery; only 4 % of customers prefer pure electronic service, and 14 % of customers prefer pure personal service. There are several aspects that differentiate those customers who prefer predominantly electronic or personal service. The preference for the electronic channel indicated investments in shares, independent decision making style in wealth management tasks and reliance on electronic information channels. In addition, the customers who perceive relationship strength with the service provider as weaker prefer predominantly e-services, which should give impetus for action among the management in the financial service companies.

Keywords: Multichannel, Wealth Management, Electronic Service, Personal Service, Relationship Strength

1 INTRODUCTION

Multichannel customer management is the design, deployment, coordination, and evaluation of channels through which firms and customers interact, with the goal of enhancing customer value through effective customer acquisition, retention and development (Neslin et al. 2006). Multichannel retailing is assumed to offer synergies, as it can result in an increased customer base, added revenue, and higher market share (Berman and Thelen 2004). A well-integrated multichannel strategy includes product, service and quality consistency across channels, highly-integrated promotions and integrated information systems that share customer and offering information. Much of the multichannel research has taken place in the financial industry for several reasons. Financial services have been in the forefront of the new technology deployment, since the financial industry is essentially an information-based industry (Dewan and Seidmann 2001). In addition, financial service providers control both their online and offline channels and can decide fairly freely how to develop the channels, and where the focus of the development should be. In the financial sector, multichannel service delivery is thus commonplace. The average adoption rate of online banking is high in the Nordic countries making the need for multichannel strategy essential. According to the statistics from spring 2008, 83% of Finns use the internet, and 72% of the population are online banking users (Statistics Finland, 2008).

This study is based on the results of both qualitative and quantitative data that were collected under a larger research project. The main aim of the project was to develop a comprehensive wealth management service concept for individual customers. The qualitative methods included financial expert interviews and consumer focus group discussions. The main focus of this paper is, however, on reporting the results of a questionnaire sent to customers of a Nordic financial conglomerate (N = 291). The sample customers have some property and savings, representing thus a customer segment that financial service providers will find increasingly interesting in the future. They are, however, not entitled to private banking services. In our case financial conglomerate only customers who have 100 000 € of assets for investment purposes can use private banking services. The sample customers thus manage their assets either independently or after infrequent consultations with a financial advisor.

This paper broadens the research focus from transactional services (mainly payment of bills and checking account balances) to wealth management services. For the purposes of this study, we understand wealth management broadly as those activities focusing on financial issues in the households; real and financial assets and liabilities, including insurances for protection of possessions and persons. We emphasize a comprehensive view to wealth management services, and recognize that wealth management requires knowledge and experience that are not necessary in day-to-day running of financial affairs. For example, in the preliminary testing phase of the wealth management service concept, a financial security check” – the opportunity for consumers to map their own financial situation – and compare it with others belonging to the same demographic group, was appreciated.

The objective of this research is to examine which variables influence consumers’ channel preferences in the wealth management context. Consequently, a model of variables influencing the consumers’ channel preferences is developed. We examined the channel attributes; convenience, security and personalization, and whether customers’ perceptions of the relationship strength with the service provider are associated with channel preferences. In addition, internet and wealth management knowledge and experience were hypothesized to have an impact on the channel preferences. Our paper thus concentrates on finding an answer to the question: *What variables influence consumers’ channel preferences in the wealth management context?* In addition, we carry out an exploratory analysis on how predominantly electronic service (PES) and predominantly personal service (PPS) customer groups diverge from each other.

This paper is structured as follows. We first discuss the literature investigating the multichannel usage, and then develop the hypotheses for the model. In section three we describe the data and methodology used in the empirical study. After that, the results based on the binary logistic regression and t-test analysis are presented. Finally, the results and theoretical and managerial implications are discussed.

2 THEORETICAL BACKGROUND AND HYPOTHESES

Sousa and Voss (2006) define multichannel service as a service composed of components that are delivered through two or more channels. According to Neslin et al. (2006), practitioners have five challenges to address in the effective management of the multichannel environment: i) data integration, ii) understanding consumer behaviour, iii) channel evaluation, iv) allocation of resources across channels, and v) coordination of channel strategies. Academic research has mostly addressed the question of consumer behaviour, and has concentrated on three main channels: catalogs, bricks-and-mortar stores, and the internet.

Previous research has given evidence for reasons for channel choice and concluded that multichannel consumers, in general, buy more (Kumar and Venkatesan 2005). According to Neslin et al. (2006), the main determinants of customer channel choice can be divided into five groups: *marketing efforts* (Ansari and Mela 2003), *channel attributes* (Devaraj et al. 2006), *channel integration* (Montoya-Weiss et al. 2003), *social influence and situational factors* (Burke 2002, Dabholkar and Bagozzi 2002) and *individual differences* (Durkin 2004). In addition, the *task characteristics* of goal-directed or experiential tasks (Hoffman and Novak 1996) and the *type of products purchased* (Chiang et al. 2006) influence the channel choice. Less research has been conducted in the area of data integration even though it is important for financial companies (see however, Cappiello et al. 2003).

It is likely that the characteristics of wealth management services influence the channel choice and the need for channel interaction. Long-term wealth instruments and services consist mainly of credence attributes (Darby and Karni 1973), and are marketed and sold with promises of future revenue streams and credibility of the service provider (Harrison 2000). The channel – service framework (Apte and Vepsäläinen 1993) concludes that complex and infrequently used services would typically require personal interaction whereas simple and frequent transactions can be carried out as a self-service. In addition, the media richness theory (Daft and Lengel 1986) emphasizes the richness of personal contact, and its superiority in dealing with complicated issues in comparison to, for example, phone calls or e-services.

Most of the multichannel studies in the financial services context have examined the association between channel choice and loyalty, and the findings have been contradictory. On one hand, multichannel environment can be seen eroding loyalty because it encourages extensive search and enables easy switching to another service provider. In addition, electronic channels entail little human contact, which itself can erode loyalty. Wright (2002) claims that new channel technologies have loosened the relationship between the banker and the customer. On the other hand, multichannel usage might also enhance loyalty (Shankar et al. 2003). According to Wallace et al. (2004), multichannel usage is associated with higher perceptions of the provider's service offering, which in turn leads to higher customer satisfaction and loyalty. Coelho et al. (2003) investigated 62 UK financial service companies and found that multichannel companies enjoyed higher sales levels but lower profits. It seemed that multichannel companies suffered especially in terms of customer service and customer retention. Thus, providing good, coordinated service is a challenge for multichannel companies. In general, however, several research results indicate that channel choice has no association with loyalty in the banking context (e.g. Colgate and Smith 2005; Herington and Weaven 2007).

Only few studies have examined services related to maintaining and accumulating wealth. Falk et al. (2008) found that in Germany, the status quo bias is a powerful hindrance for consumers to turn to electronic services in the investment context, and especially older, male consumers and inexperienced internet users preferred continuing to use purely personal service. Ding et al. (2007) examined what combination of features financial institutions should offer to satisfy the needs of the high involvement customers who preferred using the e-service, multichannel or personal service for investment needs. Within these different customer segments the customer needs regarding online features differed, indicating a need to personalize the multichannel offering for each customer segment. The electronic service segment included 52 %, multichannel 37 %, and personal service 11 % of the sample's customers in the study (Ding et al. 2007).

Channel preferences (dependent variable in the model)

Channel choice can range from pure electronic channel (self-service) to pure personal service. The dominant view of the experts we interviewed was that in wealth management tasks, personal encounter with a financial advisor is the best way to influence customers, especially when the customers are inexperienced. More experienced customers might be able and willing to turn to electronic services. Thus, the multichannel view emerged very strongly in the interviews. However, a linkage between the relationship strength and channel preferences could not be made. In the consumers' focus group discussions, the internet was mentioned as an information source but e-services of banks were not discussed. Topics like security or privacy did not emerge directly in the discussions. Instead, consumers talked spontaneously about the need for trust in the wealth management relationship and their partial distrust in financial advisors (Sunikka and Peura-Kapanen 2008a, 2008b).

The channel preferences are measured with one item "I prefer taking care of my wealth" with anchors at 1, signifying electronic channel delivery and 7, signifying interaction with a financial advisor. The midpoint 4 denotes customers that prefer electronic and personal service delivery to the same extent. For the purposes of the binary logistic regression analysis, customers were divided into two groups; those who prefer predominantly electronic service, PES-group (choices from 1 to 3, $n = 72$) and those who prefer predominantly personal service, PPS-group (choices from 5 to 7, $n = 160$). We decided to omit those customers who chose the mid-point 4 from further analysis ($n = 59$).

Channel attributes

Previous research has identified several reasons why consumers adopt new technology. Especially in the financial service sector, research has concentrated on examining the antecedents of electronic banking adoption (e.g. Durkin, 2004). The technology acceptance model, TAM, (Davis 1989) has identified usefulness and ease of use as the main variables for explaining why consumers adopt new technology. In addition, the consumer readiness (Meuter et al. 2005) and the technology readiness (Parasuraman 2000) constructs explain why some consumers feel more comfortable with new technology than others.

Convenience, security and personalization represent channel attributes in this study. For example, Szymanski and Hise (2000) found convenience to be an important factor in e-satisfaction. Convenience is understood in terms of consumers' time and effort perceptions related to using a service. Fun of interaction was not included as an attribute since electronic banking (also for wealth management tasks) is considered as a utilitarian electronic service (van den Heijden 2004). In an online context, security, and the perception of trust have been identified as important determinants of customer willingness to use electronic services (Casaló et al. 2007, Yousafzai et al., 2003). According to a recent Eurobarometer (2008) study, consumers in the Nordic countries trust banks and financial institutions to use their personal data in an appropriate way. Personalization has been taken into new levels in the electronic environment, and research interest has continuously increased (for a review, see Fan and Poole, 2006). The chosen attributes were combined with two tasks: information search about wealth-related issues, and buying or selling of assets. Hence, we combined three channel attributes with two wealth management tasks.

We hypothesize that all relationships between the channel attributes and the channel preference are positive. In other words, if a respondent thinks that information search is convenient with the help of a personal financial advisor, the customer is expected to choose options from 5 to 7 and thus indicate her/his preference for the personal service delivery channel. If, on the other hand, a customer regards electronic service as a convenient channel in information search, s/he is expected to choose options from 1 to 3 and thus show preference for the predominantly electronic service delivery. Descriptive statistics of the items and constructs are presented in Appendix 1.

H1: Customer's perception of the channel convenience will be associated with the customer's channel preferences.

H2: Customer's perception of the channel security will be associated with the customer's channel preferences.

H3: Customer's perception of the channel personalization will be associated with the customer's channel preferences.

Relationship strength

Incorporating the relationship strength as one of the variables in the model was motivated by the question whether financial service relationships are perceived as strong or weak by the consumers. Financial service relationships are often used as examples of the relationship management approach, which is defined as activities directed towards establishing, developing and maintaining successful relational exchanges (Morgan and Hunt 1994). However, there are doubts about the strength of ties that consumers feel towards their financial service providers in the current era where "the competitor is only a click away".

In contrast to the research on service quality, satisfaction and loyalty (e.g. Beerli et al., 2004), there are only few studies on relationship strength. Donaldson and O'Toole (2000) and Hausman (2001) have examined relationship structure and strength and its impact on performance in a non-finance B2B context. Wong and Sohal (2006) have developed a model of relationship strength in the retail sector, and claim that their results could be generalized to banking and insurance industries. Other researchers have concentrated on the salesperson's role (Bove and Johnson 2001), or on comparing varying levels of relationship strength in different service industries (Ward and Dagger 2007). Ward and Dagger (2007) found out that of the five service contexts they studied, customers in general perceive that the relationship with a bank represents medium level strength; the strongest relationship is usually with the hairdresser, and the weakest with a cinema.

In this study, relationship strength is defined as the extent, degree, or magnitude of relationship which is governed by the amount of trust and the level of commitment the customer feels towards the service provider (Bove and Johnson 2001). The relationship strength is particularly applicable in situations where the service involves a high component of interpersonal delivery, and when the service is varying and high in experience or credence qualities, making quality difficult to predict or evaluate and therefore increasing the customer perceived risk (Sheth and Parvatiyar 1995).

Ball et al. (2004) grouped the antecedents of loyalty as follows: *characteristics of the environment* (perceived switching costs or technological changes), *characteristics of the dyadic relationship* (shared norms or relationship duration), *characteristics of the consumer* (relationship tendency or involvement in the category), and *consumer perceptions of the relationship with the company* (service satisfaction, trust and service quality). Consumers' perception of the relationship strength with the service provider is thus perceived as an antecedent of loyalty. In this paper, the perceived relationship is understood purely from the consumer's point of view. Originally, we had three items to measure the relationship strength; however, the transactional item had to be excluded from further analysis since it did not fit with the other two items of the construct.

H4: Customer's perception of the relationship strength with the service provider will be associated with the customer's channel preferences.

The internet variables: knowledge and experience

In line with previous studies (e.g. Montoya-Weiss et al. 2003), increased familiarity (knowledge and frequency) of the internet usage is likely to result in increased use of electronic services. According to Alba and Hutchinson (1987), knowledge can be divided into subjective and objective knowledge. Subjective knowledge is the own perceived level of knowledge, in this study the self estimated ability to use the internet. Objective knowledge was not measured in this study.

Experience with the internet, both the length of time the consumer has used the internet and the frequency of the internet usage, as well as the versatility of the tasks, are expected to influence channel preferences. In this study, frequency of usage (in hours per week) represents the internet experience.

H5: The internet knowledge will be associated with the customer's channel preferences.

H6: The internet experience will be associated with the customer's channel preferences.

Wealth management variables

Knowledge on different instruments is assumed to increase the confidence of customers in their own ability to conduct wealth-related tasks independently, without turning to customer representatives for assistance. The frequency of wealth management transactions is also assumed to increase the likelihood of electronic channel usage. Associated with this is the nature of the financial assets owned since, for example, ownership of liquid assets (e.g. shares) can require frequent transactions and might thus result in preference for multichannel and electronic channel service delivery.

H7: Wealth knowledge will be associated with the customer's channel preferences.

H8: Wealth experience will be associated with the customer's channel preferences.

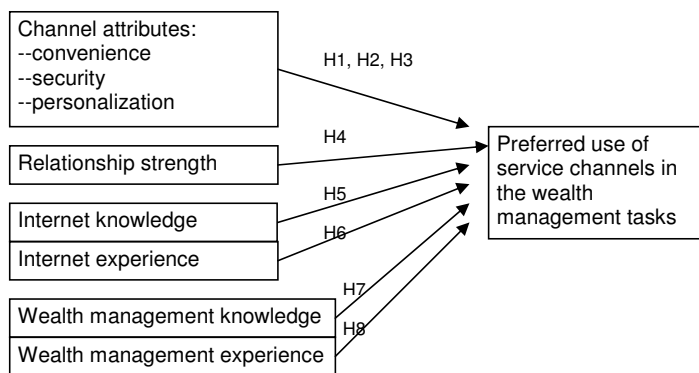


Figure 1. Model for channel preference in the wealth management context

3 METHODOLOGY

Our qualitative data examined wealth management behaviour both from the point of view of consumers and service providers. At first, focus group discussions were carried out with 33 consumers in six sessions and 11 individual interviews were conducted with financial experts. Based on the results of this qualitative phase and an earlier literature, a questionnaire was constructed. The questionnaire included several themes ranging from motivations for financial behaviour to customer views of total wealth management services. Most of the items used in the questionnaire were adapted from previous studies. In addition, practitioners and academics participating in our research project commented extensively on the questions resulting in several changes to the final questionnaire form. 1500 questionnaires were sent out to customers of a financial conglomerate. Two mailings were used. The customers were chosen from the database of the financial services company, and are representative of relatively wealthy customers. The response rate was 20.6 % (309 returned questionnaires), which can be considered satisfactory considering the length of the questionnaire, the sensitivity of the topic, and the fact that this was a mailed survey. After having removed incomplete responses, 291 usable responses were available for our analysis.

4 RESULTS

The demographics of the 291 respondents were the following: 57 percent were female, the average age was 49 (range from 25 to 75), and 49 percent had a polytechnic or a university degree. Nearly 70 percent earned less than 40 000 € per year and the group owning between 100 001 and 250 000 in assets was the biggest group (35 %). 83 percent of the respondents lived in smaller towns and rural municipalities.

Confirmatory factor analysis (CFA) was conducted using principal component analysis and orthogonal varimax rotation. Appendix 1 depicts the constructs that were used in the logistic regression model. The security attribute on buying and selling loaded on the convenience attribute, leaving only one item, the security of information search, to represent the security construct. The reliabilities of the constructs (Cronbach's alpha values) ranged from 0.76 for convenience to 0.84 for relationship strength. Nearly all tasks were considered more convenient, more personalized and more secure when conducted as PPS. Only the information search item was considered slightly more convenient as PES. Correlations among variables ranged from -0.35 (personalization and frequency of wealth management decision making) to 0.64 (channel attributes personalization and convenience).

We conducted a stepwise binary logistic regression with SAS 3.0 to test the hypotheses. The explanatory variables were derived from the factor analysis and the significant variables are presented in Table 1 below. The dependent variable is channel preference, 1 for PES and 0 for PPS. We used the question "I prefer taking care of my wealth" with anchors at 1 for purely electronic channel and 7 for purely personal channel to distinguish those who prefer PES (from 1 to 3, 25% of the respondents) from those who prefer PPS (from 5 to 7, 55% of the respondents). We decided to omit those customers who chose the mid-point 4 to denote their channel preference (20% of the respondents). However, multichannel service delivery was clearly the dominant service delivery model since the pure electronic channel was preferred only by 4 percent and pure personal service by 14 percent of the respondents.

Parameter	DF	Estimate (B)	Standard Error	Wald Chi-Square	Pr > Chi Sq	Exp (B)
Intercept	1	1.5401	0.3292	21.8828	<.0001	4.665
Channel Convenience	1	1.227	0.2938	17.4402	<.0001	3.411
Internet knowlege	1	-0.7583	0.3194	5.6354	0.0176	0.468
Wealth mgmt knowledge	1	-0.5927	0.2925	4.1053	0.0427	0.553
Channel Personalization	1	3.1297	0.5074	38.0397	<.0001	22.867
Relationship strength	1	0.8288	0.2838	8.5305	0.0035	2.291
Channel Security	1	0.9689	0.2932	10.9212	0.001	2.635

Table 1: Influential variables for channel preferences

The -2Log likelihood of the final model was 83.651, R-Square 0.556 and Max-rescaled R-Square 0.874. In the likelihood ratio test for the global null hypothesis ($\beta = 0$), chi-square was 160.901 with 6 DF (<.0001). No additional effects met the 0.05 significance level after Step 6. Somers' D denotes the strength and direction of the relation between pairs of variables. It is the difference between the percent concordant and the percent discordant divided by 100, in our model $(96.6 - 3.4)/100 = 0.933$. The C measure (equivalent to a well-known measure of ROC) is 0.966, which corresponds to the model discriminating the responses well.

The channel attributes of personalization, convenience and safety are all positively related with the channel preference (H1 – H3); those who rate these attributes high for personal service also prefer PPS delivery. Relationship strength is also positively related with the channel preference; those who perceive a stronger relationship with the service provider prefer PPS delivery in the wealth management context (H4). The relationships with the internet knowledge (H5) and wealth management knowledge (H7) with channel preference are reverse; that is, the increase in these variables indicates a move from personal service preference to multichannel and electronic service preference. The relationships between the internet experience and wealth management experience with channel preference were not statistically significant; we thus reject H6 and H8.

In order to develop a deeper understanding of the differences and similarities between the customer groups that preferred PES or PPS delivery we carried out t-tests with variables that were not included in the logistic regression model (see Appendix 2 for details). We used the same binary variable as in the logistic regression to group the data. Even though we did not think that demographic variables

would have an impact on the channel preferences, there was a statistically significant difference between the groups. PPS was preferred by older customers; the average age of PPS customers was 50 years in comparison with 46 years in PES group ($p = 0.0308$). PPS group consisted of 63% of females whereas PES group included only 36% of female. In addition, members of the PPS group owned less shares. We asked about the *sources of information* that customers considered as the most important in the financial decision making context. PPS group turned to financial advisors for information whereas PES group used a variety of information sources to support them in the financial decision making: especially electronic channels but also printed articles and own previous experience. When *decision making style* in financial matters was specifically inquired, PES group acted independently, relying on their own expertise whereas PPS group needed more advice and reassurance from others. PPS group had a more favourable *view of the marketing activities* of the financial institutions; seeing marketing as aiming at the good of the customer rather than pushing products to customers. Customers in PPS group intended to increase the use of services of the current service provider indicating *behavioural loyalty* even though there was no statistically significant difference with the intentions to use services of other companies between the PPS and PES groups. The PPS group also felt that they had invested more effort in finding a suitable service provider creating thus higher *switching barriers*. In general, PES group had a more critical attitude towards financial service providers than PPS group.

5 DISCUSSION AND CONCLUSIONS

This paper focused on understanding customers' multichannel usage in the wealth management context, and especially the linkage between the relationship strength and the channel preferences. Multichannel service delivery is clearly preferred to pure electronic service delivery (4%) or pure personal service delivery (14%) in wealth related tasks. Only the information search task was considered slightly more convenient as predominantly electronic service (PES) than personal service, whereas convenience, personalization and safety constructs were all seen as predominately personal service (PPS) attributes. Channel preferences in wealth management are also influenced by the relationship strength; those who perceive a stronger relationship prefer using PPS. Increasing internet and wealth management knowledge, on the other hand, makes customer prefer switching to the multichannel and electronic service delivery.

The t-tests between the PPS and PES groups revealed quite distinguished profiles of the two customer groups. Those who preferred PES were demographically more likely to be younger males and they had more investments in shares than the PPS group. The preference for increased electronic channel usage might be partly explained by their willingness to use e-services for share trade transactions. The PES group used more versatile information sources than the PPS group who mainly relied on the information provided by their primary financial service provider. In addition, customers in the PES group preferred making independent decisions instead of turning to financial advisors for advice. Perceptions about the advice that the financial service companies offered differed too; the PES group thought that the advice of the financial service companies mostly promoted the products or services of the particular company, and not the good of the customer. Furthermore, the behavioral loyalty and perceived switching costs diverged confirming the stronger perceived relationship between the PPS customers than the PES customers with their financial service provider.

Traditional wealth services require expertise and are thus labor intensive. As the number of consumers willing and able to invest is expected to increase in the future, the challenge of suitable service channel combinations will intensify. When electronic and personal services are combined the wealth management service providers are not only able to offer services to a larger number of customers but can also provide more comprehensive and more integrated services to cover consumers' wealth management needs as a whole. The findings of our study show that those who prefer PES are more knowledgeable and willing to make independent decisions in wealth management issues than the PPS customers. However, there are only 25% of PES customers in this sample compared with 55% of PPS customers. Thus, even though customers are active users of online banking in everyday monetary affairs, the majority of customers seem to need personal interaction with the financial advisor in a

more complex context at the moment. Also, since the multichannel strategy emerged as the most preferred channel choice both electronic and personal channels have to be developed in an integrated manner.

As it seems that the PES customers perceive a weaker relationship with their service provider, the financial service providers should emphasize the added value that their electronic channel provides for the customers. Nowadays, information technology offers several possibilities for automated and personalized service delivery. However, e-services are not necessarily perceived as personalized even though customers find their own account and transaction information in the online applications. The information provided by the financial service provider is not personalized, and not necessarily relevant for the customers' situation, or their financial objectives in life. A more personalized experience could be offered with a tool that aggregates the customers' financial transactions in order to show their financial status and the allocation of wealth automatically, without manual calculations. A more hedonic application is a widget that is provided by an e-service of one bank: the customer can choose a certain objective for savings, for example, a vacation trip, and the widget records all the savings by depicting a piggy bank that is becoming rounder when the savings amount accumulates. In addition, chat and VoIP could be harnessed for customer service purposes since one of the recurrent sources of complaints is that it is difficult to get in contact with financial advisors. However, the linkage to personal service should always be kept in mind, and the PES customers should be served efficiently when they need personal service. For example, Colgate and Smith (2005) studied multichannel financial services, and concluded that a good relationship with a financial advisor can build trust among the e-service customers.

Our research has the following limitations. Only customers of one service provider were surveyed, limiting the external validity of the study. Because the questionnaire was long (11 pages), and there were several themes, the number of items for the channel and relationship questions was restricted. According to Drolet and Morrison (2001), one-item constructs are not necessary harmful in service research. For example, Shankar et al. (2003) only used one-item constructs in their multichannel study. The main reason for this was to avoid the excessive length of the questionnaire, as in our case.

It should be noted that we do not know if customers who perceive weaker relationship prefer PES, or if the usage of PES leads to weaker relationship due to the decreasing amount of personal contact. More studies should concentrate on finding out how the financial service offering should be combined in various channels, and what kind of services are regarded as attractive in the electronic channel. Further studies should also examine other industries and companies to confirm the relationship between the electronic service usage and relatively weaker relationship with the service provider.

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Appendix 1: Variables, mean averages, standard deviations, and Cronbach alfas for the constructs

Construct	Item	Factor loadings	N	Avg	SD
Channel convenience CA = 0.7611 Avg: 4.29, Std: 1.34	Information search about wealth is the most convenient (1 = as a pure electronic service, 7 = as a pure personal service)	0.5711	291	3.73	1.67
	Purchasing and selling wealth is the most convenient...	0.8057	291	4.15	1.74
	Purchasing and selling wealth is the most secure...	0.7656	291	4.99	1.45

Channel security	Information search about wealth is the most secure...	0.9109	291	4.70	1.41
Channel personalization CA = 0.7880 4.72 (1.37)	I receive information about my personal wealth situation the best...	0.7089	291	4.79	1.66
	My personal needs regarding wealth purchasing and selling are best fulfilled...	0.6932	291	4.87	1.63
	I myself best influence the management of my wealth	0.7672	291	4.51	1.61
Relationship strength CA = 0.8438 5.51 (1.23)	I have a confidential relationship with my principal wealth management company. (1 = strongly disagree, 7 = strongly agree)	0.9298	285	5.65	1.27
	I have a confidential relationship with the financial advisor of my principal wealth management company	0.9043	283	5.34	1.42
Internet knowledge (range 1 – 7, 1 = no, 7 = excellent)		0.9026	281	4.50	1.37
Internet experience (hours of usage per week) (0 – 60 decisions)		0.9427	278	7.53	8.64
Wealth management knowledge in comparison to financial expert's (1 = inferior own knowledge, 7 = superior own knowledge)		0.9731	288	3.06	1.32
Wealth management experience/decision making freq per year (0 - 52)		0.9405	280	3.63	6.47
Channel preference (I prefer taking care of my wealth) (1 = as a pure electronic service, 7 = as a pure personal service)		-	291	4.69	1.70

Appendix 2: T-test results

	Predominantly personal service (PPS)			Predominantly e-service (PES)			Significance *
	Avg.	SD	N	Avg.	SD	N	
Share ownership (1 = none, 7 = all assets)	2.06	1.667	140	2.82	1.928	65	0.0048*
Information sources (1= not at all important, 7 = very important)							
Personal advice from own financial advisor	<u>5.20</u>	5.202	158	4.37	1.476	71	<.0001***
Material distributed at branch offices	<u>4.11</u>	1.371	158	3.67	1.322	72	0.0231*
E-services of own financial institution	4.03	1.451	152	<u>4.54</u>	1.401	70	0.0135*
E-service of independent service providers	3.73	1.461	154	<u>4.33</u>	1.411	70	0.0043*
Articles in print magazines and newspapers	4.23	1.295	157	<u>4.67</u>	1.322	72	0.0193*
Articles in the internet	3.26	1.395	155	<u>3.86</u>	1.387	71	0.0029*
Own knowledge and experience	4.70	1.320	158	<u>5.19</u>	1.109	72	0.0058*
Decision making style in financial affairs							
Turn to financial advisor for assistance (1 = never, 7 = always)	<u>4.93</u>	1.481	157	3.78	1.366	72	<.0001***
Rely more in (1 = own deliberation, 7 = others' advice) in financial decision making	<u>4.47</u>	1.534	158	3.31	1.469	72	<.0001***
Advice and marketing							
Objective of marketing: Push and sales (1) vs. good of the customer (7)	<u>4.13</u>	1.433	158	2.76	1.409	72	<.0001***
Marketing directed to individual products (1) vs. to total wealth concept (7)	<u>4.73</u>	1.096	157	3.83	1.424	71	<.0001***
Relationship strength							
Intention to increase service of the current service provider (1 = disagree, 7 = agree)	<u>4.42</u>	1.350	158	3.37	1.434	67	<.0001***
Investments in finding a suitable financial services company (1 = disagree, 7 = agree)	<u>2.81</u>	1.515	158	2.24	1.169	67	0.0026*
Perception of wealth service prices (1 = very low, 7 = very high)	4.81	1.096	156	<u>5.24</u>	1.177	71	0.0077*

Essay 3: Anne Sunikka and Johanna Bragge (2009) Personalization and Mass-Customization in the Research Literature. *The 5th World Conference on Mass Customization & Personalization*. October 4 – 8, Helsinki, Finland.

PERSONALIZATION AND MASS-CUSTOMIZATION IN THE RESEARCH LITERATURE

Anne Sunikka and Johanna Bragge

Abstract. Personalization and mass-customization are defined in numerous ways in the research literature. We combine a text-mining approach for profiling personalization and mass-customization research with a literature review in order to distinguish the characteristics of these two research streams. Research profiling with search words personalization and mass-customization was conducted using the ISI Web of Science database in April 2009. The elements typical to the personalization and mass-customization research were identified. Personalization research has a strong focus on technology and the internet, in addition to which it emphasizes customers' needs and preferences and information collection for user modeling and recommender systems. Mass-customization is an older research stream, and the main body of the research has focused on tangible products but has lately initiated service research as well. We suggest a classification of concepts linked to personalization in order to avoid confusion with the use of these concepts.

Keywords. Personalization, Mass-customization, Customization, Research Profiling, Literature Review.

Introduction

Personalization is a concept that is intuitively appealing. The roots of personalization are in the relationship marketing and management (Crosby et al., 1990; Dwyer et al., 1987). Just like a helpful sales clerk, the seller (or the electronic customer interface), greets the customer by name, remembers what s/he has purchased or browsed previously, and suggests products s/he might be interested in the future. In the 21st century the wide-spread use of information and

communication technologies (ICT) has made personalization a more varied and affordable strategy for implementing interactive relationships with customers. The benefits of personalization are said to be many for both marketers and customers. Individualized products, services and communication are believed to attract customer attention and foster customer loyalty and lock-in (Ansari and Mela, 2003), and serve as a protection against the commoditization of the offering (Wind and Rangaswamy 2001). According to Goldsmith and Freiden (2004) personalization is one of the major changes that influence marketing, and Kalyanam and McIntyre (2002) include personalization as a significant element in the online marketing mix.

Another commonly used term for offerings designed for individual customers (either consumers or companies) is customization. Especially when a comparatively low price is emphasized (the same or almost the same as for a standardized product), a term mass-customization is used. However, researchers have not reached a commonly agreed conceptualization of personalization and customization. According to some researchers, there is a difference between the concepts (e.g. Arora et al., 2008; Gilmore and Pine 1997; Kumar, 2009; Montgomery and Smith, 2009), whereas other researchers use the terms interchangeably (e.g. Peppers and Rogers 1997; Miceli et al., 2007).

The motivation for this paper arose from the desire to understand personalization and how it is defined and conceptualized in the literature. There are also other terms whose main content is to offer the right products and services at the right time and in the right place to the right customers. As mentioned, the concepts of customization and mass-customization are commonly used interchangeably with personalization. We examine personalization using two approaches; traditional literature review and research profiling (see Porter et al., 2002). We will first present definitions and conceptualizations of personalization retrieved predominantly from the marketing and information systems literature. We will then discuss the research profiling methodology, and present the results of the electronic database searches that were conducted in April 2009 using the ISI Web of Science (ISI-WoS) database. The results reveal the main similarities and differences of the personalization and mass-customization literature. The final section discusses the results and concludes the paper with a framework of the contemporary usage of the concepts.

Definitions and frameworks of personalization

Definitions from the literature

Personalization goes by many names, for example, individualization (Riemer and Totz 2001), segmentation (Smith, 1956), targeting, profiling, and one-to-one

marketing (Peppers and Rogers, 1997), as there is no agreed on definition on what constitutes personalization (Wind and Rangaswamy, 2001). Smith (1956) defined the original idea of tailoring the offering to better suit a certain customer group as segmentation: “*Market segmentation involves viewing a heterogeneous market as a number of smaller homogeneous markets, in response to differing preferences, attributable to the desires of consumers for more precise satisfaction of their varying wants*”. It is difficult to differentiate between market segmentation and a personalized offering, or individual marketing as Simonson (2005) calls it. According to him, many examples of one-to-one marketing could also be classified as usage-based segmentation.

The other main concept in our study, mass-customization, was coined by Davis (1987). Pine (1993) provided the practical underpinnings to shape mass-customization into a viable strategy (Kumar, 2007). According to Hart (1996), mass-customization is defined as “*using flexible processes and organizational structures to produce varied and often individually customized products and services at the price of standardized mass-produced alternatives*”. Gilmore and Pine (1997) used the term customization, and defined four basic types of customization: adaptive, cosmetic, transparent, and collaborative customization. According to them, collaborative customizers conduct a dialogue with individual customers to help them articulate their needs, to identify the precise offering that fulfills those needs, and to make customized products for them. Adaptive customizers offer one standard, but customizable, product that is designed so that users can alter it themselves. Cosmetic customizers present a standard product differently to diverse customers, and transparent customizers provide individual customers with unique goods or services without letting them know explicitly that those products and services have been customized for them. Customerization, a term coined by Rangaswamy and Wind (2001), combines mass customization with customized marketing, and aims at buyer centric marketing. Customerization is under the control of customers and initiated by them, and it focuses on helping customers to better identify or define for themselves what they want (Rangaswamy and Wind, 2001). In Table 1, we have collected the definitions of personalization and included also the definitions of customization or mass-customization, if available in the same article.

Author (s)	Definition (s)
Peppers and Rogers (1997)	<i>Personalization</i> is customizing some feature of a product or service so that the customer enjoys more convenience, lower cost or some other benefit. Personalization can be initiated by the customer or by the firm.
Riemer and Totz (2001)	<i>Personalization</i> (or individualization which are used synonymously) in general means matching one object's nature with one subject's needs (i.e. customize products, services, content, communications to the needs of single customers or

	customer groups). <i>Mass-customization</i> is the individualization of products (and services) at the cost of one-size fits all.
Blom and Monk (2003)	<i>Personalization</i> is a process that changes the functionality, interface, information content, or distinctiveness of a system to increase its personal relevance to the individual.
Chellappa and Sin (2006)	<i>Personalization</i> refers to the tailoring of products and purchase experience to the tastes of individual consumers based upon their personal and preference information. Therefore, personalization is critically dependent on vendors' ability to acquire and process consumer information, and on consumers' willingness to share information and use personalization services.
Ho (2006)	In <i>customization</i> , a web site provides an array of choices for the users to modify a web site's look and feel (i.e. is a user-driven process). Relevant content based on the preferences of groups of users is provided in <i>adaptation</i> (i.e. according to the country of web users). <i>Personalization</i> is a process of providing relevant content based on individual user preferences, and personalized web sites obtain preference information implicitly by tracking customer purchases or usage habits.
Tam and Ho (2006)	There are three types of personalization: <i>user-driven personalization</i> when the user specifies in advance the desired web layout and content that matches her interests and preferences with the tools and options provided. In <i>transaction-driven personalization</i> online merchant generate the personalized layout and content, and thus personalization is driven by previous transactions. <i>Context-driven personalization</i> employs an adaptive mechanism to personalize content and layout for each individual user based on the context and inference of users' processing objectives in real time (e.g. product inspection versus random browsing).
Arora et al. (2008)	<i>Personalization</i> is a firm's decision on the marketing mix suitable for the individual that is based on previously collected customer data. <i>Customization</i> , on the other hand, occurs when a customer proactively specifies one or more elements of her / his marketing mix.
Kumar (2007)	<i>Personalization</i> is a limiting case of mass customization. <i>Mass customization</i> aims at a market segment of few, whereas <i>mass personalization</i> aims at a market segment of one. The degree of transformation from mass customization to mass personalization depends on the extent to which the product of a company is soft and produced electronically.
Frias-Martinez et al. (2009)	There are two major approaches to <i>personalization</i> : <i>adaptability</i> that enables users to adapt the content layout and navigation support to their preferences by themselves, while <i>adaptivity</i> makes an automatic adaptation for users
Montgomery	<i>Personalization</i> is the adaptation of products and services by the

and Smith (2009)	producer for the consumer using information that has been inferred from the consumer's behavior or transactions. <i>Personalization</i> is automated by the marketer on behalf of the customer as opposed to <i>customization</i> that a customer requests on her own behalf.
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Table 1: Definitions of personalization and attached concepts (in chronological order).

As can be inferred from Table 1, the conceptualizations of personalization diverge. The most recent conceptualizations make a distinction between personalization as a seller initiated activity, and customization as a customer initiated activity.

Personalization processes and frameworks for personalization

According to Peppers and Rogers (1997), one-to-one marketing is personalized marketing based on the idea of an enterprise knowing its customers and treating customers differently. The authors conceptualize personalization as a four phase process: i) identifying potential customer; ii) determining their needs and their lifetime value to the company; iii) interacting with customers in order to learn about them; and iv) customizing products, services and communications to individual customers

Personalization as a process has been studied also by Adomavicius and Tuzhilin (2005). They see personalization as an iterative process that consists of i) understanding the customer (with sub processes data collection and building consumer profiles); ii) delivering the personalized offering (sub processes matchmaking and delivery and presentation), and iii) measuring the impact of personalization (sub processes measuring the impact and adjusting personalization strategy). Vesanen and Raulas (2007) developed the process model further and propose that personalization is a broad concept that encompasses execution, marketing outputs in the form of products and services, promotion and communication, price and delivery, and the creation of value for both customers and marketers.

Miceli et al. (2007) presented a conceptual framework for e-customer profiling that aims at supporting personalization decisions along a continuum ranging from common product versioning to complex reverse marketing (see Table 2).

Personalization approaches	Product variety	Interactional flexibility	Product designer
Product versioning	low	low	FIRM
Mass	high	low	FIRM/CUSTOMER

customization			(at the late stage)
One-to-one personalization	low	high	FIRM/CUSTOMER
Customerization/co-creation	high	high	FIRM/CUSTOMER (at the early stage)
Reverse marketing	high	high	CUSTOMER

Table 2: Personalization continuum (Miceli et al. 2007, p. 9).

The personalization framework of Miceli et al. (2007) combines multiple dimensions that capture the customer heterogeneity. They characterize personalization by four dimensions: value, knowledge, orientation and relationship quality. Value refers to customer expectations for both content and site-specific features, while the knowledge dimension pertains to the customer's expertise and familiarity with the internet and web-based interaction tools. Orientation is about the customer's mindset during the navigation experience, and relationship quality depicts the strength of the customer's relationship with the firm. The analytical framework of Miceli et al. (2007) aims to prescribe the ideal personalization process by first clustering the customers based on these four dimensions, and then suggesting the most appropriate form of personalization for each cluster.

According to the personalization framework presented by Fan and Poole (2006), personalization can be conducted either by the system (implicit), or by the user (explicit) (see Table 3). The object of personalization can be the content, user interface, functionality or channel. Furthermore, the framework makes a distinction whether personalization is directed to individuals (individuated) or to groups of individuals (categorized), which is important as personalization targeted to an individual requires more computing power.

Who does it?	To whom?	What?			
		<i>Content</i>	<i>User interface</i>	<i>Functionality</i>	<i>Channel/Info Access</i>
<i>Implicit (System)</i>	Individuated				
	Categorized				
<i>Explicit (User)</i>	Individuated				
	Categorized				

Table 3: Implementation possibilities in personalization, based on Fan and Poole (2006, pp. 187 - 188).

The object of personalization can also be any part of the marketing mix: product, promotion, placement or price (Arora et al, 2008; Vesanen and Raulas 2006). In addition, customer communication can be personalized in several ways:

according to frequency, timing, or by designing websites, newsletters or e-mails with various types of greeting, or using pictures and videos.

Comparison of personalization and mass-customization literature with research profiling

Methodology of research profiling

Literature reviews are an essential part of any scientific research. They can be done in different scales: from one section to whole state-of-the-art review articles. Their purpose is to justify the research questions and to present relevant earlier research on the subject. The search process for relevant literature is iterative as in each search one learns more about the topic under investigation. Porter et al. (2002) propose enhancing the traditional literature review through an extensive research profiling approach, as *“this broad scan of contextual literature can extend the span of science by better linking efforts across research domains. Topical relationships, research trends, and complementary capabilities can be discovered, thereby facilitating research projects.”* Research profiling is made possible through sophisticated text-mining tools combined with modern search engines and electronic science databases. Besides offering advanced reporting functions, these text-mining tools allow the researcher to interact with the literature data in unprecedented ways. Thus, the tools can be regarded as Decision Support Systems for researchers (Bragge et al., 2007). Table 4 summarizes the key differences between traditional literature reviews and research profiling. The largest difference is based on the amount of literature included, and, consequently, on the type and scope of discussion it allows.

Traditional literature reviews	Research profiling
Micro focus (paper-by paper)	Macro focus (patterns in the literature as a body)
Narrow range (~20 references)	Wide range (~20 – 20.000 references)
Tightly restricted to the topic	Encompassing the topic + related areas
Text discussion	Text, numerical, and graphical depiction

Table 4: Traditional literature reviews and research profiling (Porter et al., 2002, pp. 353).

Results of research profiling

We conducted research profiling on personalization and mass-customization employing one of the most well-known scientific databases, the ISI Web of

Science (ISI-WoS). We chose ISI-WoS because of its wide coverage on information systems and computer science journals. The searches on personalization and mass-customization articles were conducted in April, 2009 and they resulted in 883 (personalization) and 1544 (mass-customization) articles for the time period 1986 - 2009. The data (including bibliographic details and abstracts, not full-texts) was imported to a text-mining tool called the VantagePoint. After that the data had to be cleaned to improve the validity of the results. Only journal articles were included in our analysis since conference papers are less structured; they often lack keywords or abstracts. After the clean-up we started the actual analysis of the data.

The yearly divisions of articles returned with the personalization and mass-customization literature searches are presented in Figure 1. Articles from years 1986 – 1994 and 2009 are not included the figure. The figure shows that research has increased constantly, totaling 140 articles (personalization) and 211 articles (mass-customization) in 2008.

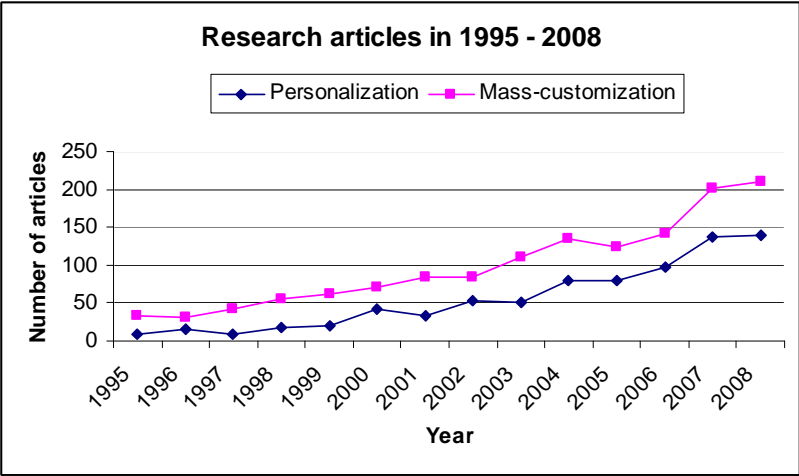


Figure 1: Articles with the search words “Personalization” and “Mass-customization” in 1995 – 2008.

Table 5 lists the most prolific authors of personalization and mass-customization, and the number of articles they have written. The research activity of the top researchers amounted to approximately 3 % of all the articles published. There were no common authors in the top author lists.

PERSONALIZATION		MASS-CUSTOMIZATION	
#	Authors	#	Authors
7	Fernandez-Vilas, Ana	10	Jiao, Jianxin (Roger)
	Frias-Martinez, Enrique	7	Huang, George Q.

	Garcia-Duque, Jorge Pazos-Arias, Jose J.	6	Li, Li
		5	Kumar, Ashok Salvador, Fabrizio Tu, Y. L Xue, Deyi Yunchu, Yang Zhang, Yiyang
6	Chen, Sherry Y. Diaz-Redondo, Rebeca P. Gil-Solla, Alberto Liu, Xiaohui Lopez-Nores, Martin Ramos-Cabrer, Manuel Smyth, Barry Tuzhilin, Alexander	4	Kusiak, Andrew Simpson, Timothy W

Table 5: The most prolific authors of personalization and mass-customization research.

Appendix 1 depicts an auto-correlation map of the top-50 personalization researchers. The lines in the auto-correlation maps reflect a measure of similarity (number of articles authored together) between the author nodes, which is a number between 0 and 1 as indicated in the legend (Pearson's r correlation). The most common author defined keywords are attached to the map afterwards to build a picture of who is studying what under personalization. The densest researcher network with Fernandez-Vilas et al. have examined digital TV and learning, Frias-Martinez et al. have studied digital libraries and cognitive styles. Briggs has focused on trust and advice in the online context, Smyth has studied web search, Tam and Ho web personalization and efficiency, Rust service, and Kumar mass-customization, especially the tendency to combine personalization and mass-customization research. Appendix 2 depicts a corresponding auto-correlation map of the mass-customization research. The most productive mass-customization author, Jiao, has focuses on product portfolio and product family. Tseng has studied flexibility and customer views, Wang and Chen have concentrated on examining customer requirements, and Chang and Chen have focused on customer satisfaction online (see Appendix 2 for details).

Table 6 depicts the author affiliations with the highest number of personalization and mass-customization articles. The total number of affiliations whose representatives examine personalization is 771, and 1408 for mass-customization. The top affiliations represent ca. 8 % of the personalization and 12 % of the mass-customization research activity. Three affiliations appear in both top lists: Georgia Institute of Technology, Hong Kong University of Science & Technology and University of Michigan (marked in *italics*).

PERSONALIZATION		MASS-CUSTOMIZATION	
#	Affiliation	#	Affiliation
10	Brunel Univ Middlesex, UK	38	Nanyang Technological Univ, Singapore
9	NYU, New York, NY USA Univ of Minnesota, Minneapolis, USA Univ of Toronto, Toronto ON, Canada	22	<i>Hong Kong Univ of Science & Technology, Hong Kong, China</i> National Univ of Singapore, Singapore
		19	Stanford Univ, Stanford, USA
7	<i>Georgia Institute of Technology, Atlanta, USA</i> <i>Hong Kong Univ. of Science & Technology, Hong Kong, China</i> Univ of Melbourne, Australia <i>Univ of Michigan, Ann Arbor, USA</i> Univ of Turin, Italy Univ of Washington, Seattle, USA	17	<i>Georgia Institute of Technology, Atlanta, USA</i> Penn State Univ, USA
		16	MIT, Cambridge, USA
		15	Univ in Carolina, Chapel Hill, USA
		14	Shanghai Jiao Tong Univ, Shanghai, China Univ Calgary, Calgary, Canada Univ Maryland, College Pk, USA. <i>Univ. of Michigan, Ann Arbor, US</i>

Table 6: The top affiliations of personalization and mass-customization research.

Both personalization and mass-customization research are published in a large variety of journals. Table 7 lists the top journals based on the frequency of published articles. There are 457 journals that have published 883 articles on personalization, and the top journals represent 18 % of the total number of personalization articles. With mass-customization the number of journals is 664, the number of articles 1544, and the top journals represent 17 % of the articles. Expert Systems with Applications journal appears in both top lists (marked in italics). The focus of the personalization research on computing; and mass-customization's interest in manufacturing are evident in the journal lists.

PERSONALIZATION		MASS-CUSTOMIZATION	
#	Journal	#	Journal
36	<i>Expert Systems with Applications</i>	49	International Journal of Production Research
21	User Modeling and User-Adapted Interaction	28	International Journal of Advanced Manufacturing Technology
15	Communications of the ACM (Association for Computing)	24	Production Planning & Control

	Machinery)		
12	Computers in Human Behavior Interacting with Computers Multimedia Tools and Applications	23	Computers in Industry Concurrent Engineering – Research and Applications
		21	IEEE Transactions on Engineering Management
10	Decision Support System IEEE Transactions on Consumer Electronics Wirtschaftsinformatik	20	International Journal of Production Economics Journal of Intelligent Manufacturing
		19	International Journal of Operations & Production Management
9	IEEE Transactions of Knowledge and Data Engineering	18	International Journal of Computer Integrated Manufacturing
8	Educational Technology & Society	17	<i>Expert Systems with Applications</i>

Table 7: The top journals of personalization and mass-customization research.

ISI-WoS categorizes each journal into 1-6 subject categories. Computer science literature dominates the personalization research (48 %) while it is the second largest subject area in mass-customization (34 %) after engineering (40 % of the articles).

Keywords offer an indication of what is being studied within the personalization and mass-customization research streams. An analysis of the keywords defined by the authors (see Table 8) reveals that personalization research is conducted mainly in the online environment. Personalization research focuses predominantly on personalization technologies as the keywords like recommender system, user model, collaborative filter, data and web usage mining and user profile indicate. Because personalization depends on the gathering and usage of user information, privacy issues are a major concern. Mass-customization keywords, on the other hand, refer more to tangible products (e.g., product family, supply chain management, platform product, modularity, product configurator, product development). There are four keywords that recur in both top lists: personalization, electronic commerce, customization and internet (marked in *italics*). During the past four years service has emerged as a top keyword in mass-customization research indicating the widening of the research interest.

PERSONALIZATION		MASS-CUSTOMIZATION	
#	Keywords (authors')	#	Keywords (authors')
248	<i>personalization</i>	188	mass customization

41	recommender system	122	<i>customization</i>
38	user model	33	product family
35	<i>electronic commerce</i>	32	supply chain management
32	collaboration filter	30	<i>electronic commerce</i>
18	data mining	23	platform product
17	web usage mining	18	genetic algorithm
15	user profile		modularity
13	<i>customization</i> ontology		product configurator
12	adaptive information retrieval privacy	16	<i>personalization</i> product development
11	clustering context aware	14	flexibility postponement service
10	<i>internet</i> machine learning	13	case study design <i>internet</i>

Table 8: The top keywords defined by authors.

In summary, personalization and mass-customization research are still clearly distinguishable research streams, even though mass-customization research has approached personalization research due to increased utilization of ICT. However, there is only one author, Kumar, that appears in both personalization and mass-customization top-50 lists (see Appendices 1 and 2). Three affiliations (Georgia Institute of Technology, Hong Kong University of Science & Technology and University of Michigan) are represented in both top lists. Even though the subject areas of journals publishing personalization and mass-customization research are very similar, only one journal, Expert Systems with Application, recurs on both top lists.

Snapshot of the current personalization research

Although research profiling, especially the keyword analysis, reveals the trends in the research streams, we wanted to examine in more detail what are the main focus areas of the recent personalization research. In order to understand the personalization research better we took a sample of the 2008 and 2009 articles to examine the main focus and methodologies used in the articles. We read either abstracts or full papers in order to discover the contexts in which the phenomenon was studied (if mentioned), and the research methodologies. The main classification was made between conceptual (e.g. literature reviews, model development without testing) and empirical papers. Empirical papers include qualitative, quantitative, and experimental papers. Experimental papers are papers

whose main focus is on developing an algorithm, a prototype or a system that is tested, experimented or simulated in order to determine how successful the new solutions are.

The 2008 and 2009 data were further cleaned. Since we were mainly interested in personalization research that has a linkage to business and management domains, we omitted articles from other domains (e.g. health science) or general papers that did not specifically focus on personalization. Also purely technology-oriented articles were omitted from the dataset. Table 9 depicts the classification of the articles.

No of articles	192
No of omitted articles	51 (irrelevant domain) 40 (technology-orientation)
No of remaining articles in the dataset	101
Conceptual papers	11 (pure conceptual) 10 (conceptual with experiments or qualitative or quantitative methods)
Empirical papers	80

Table 9: Classification of the 2008 and 2009 personalization articles.

Most of the personalization papers are empirical; case studies, experiments and simulations being the most common methods used. Only 11 papers were identified as purely conceptual papers (e.g. Oulasvirta and Blom, 2007). The most common research contexts were learning (17 articles, e.g. Gaeta et al., 2009, Rey-López et al., 2008), mobile applications (9 articles, e.g. Xu et al., 2008), e-commerce (6 articles, e.g. Lee and Kwon, 2008) and marketing (5 articles, e.g. Arora et al., 2008; White et al., 2008). Nine articles examined web search or information retrieval (e.g. Stamou and Ntoulas, 2009; Xue et al., 2009). Xue et al. (2009) aimed at finding a solution to cold-start and sparse information problems by developing a model called collaborative personalized search. It considers group user profiles, global user profiles (all users) and specialties of individuals in the model. Most of the personalization papers focused on developing an algorithm or prototype to enhance the personalization experience for the user, or profit potential for the service provider. Especially recommender systems were a recurrent topic of research. Chen et al. (2008) studied recommender systems that also take into account the profitability aspect, Zanker and Jessenitsching (2009) concluded that explicit customer requirements are a useful source of feedback, especially for new users. Berkovsky et al. (2008) focused on mediation of user models, that is, process of importing and integrating the user modeling data collected by other recommender systems.

Discussion and conclusion

Both personalization and mass-customization research are on the rise, and several disciplines study these topics. Since the research interest is comparatively recent, the definitions are still unfolding. For some researchers, the difference between personalization and customization is not important, whereas some researchers emphasize the difference.

Among those researchers who define personalization and customization as separate concepts, the consensus seems to be that the term personalization is used in three instances; i) it is a company-driven process; ii) it is used when marketing related concepts, especially personalized communication, is studied; and iii) it is the term used in the internet environment. Customization is perceived as an activity controlled by users, for example, configuring the content of a website, whereas mass-customization focuses mainly on tailor-making of products emphasizing affordable price of mass-customized products. Lately, however, mass-customization research has also started to investigate services. We speculate that the importance of services for the GDP of the developed nations and the emphasis on services also in the traditional goods manufacturing companies have contributed to the change. Furthermore, the dissemination of ideas of the service-dominant logic (Vargo and Lusch, 2004) has underlined the importance of service: service is seen as the common denominator in exchange, not some special form of exchange — what goods are not. Central to service-dominant logic is co-creation that consists of customer's active involvement and interaction with their supplier in every aspect, from product design to product consumption. In addition, a new multi-disciplinary service science explores various aspects of service design and management (Spohrer et al., 2006; Vargo et al., 2008). Faced with so many initiatives it is not surprising that also mass-customization research stream has also turned to studying services.

Based on our literature analysis we suggest a preliminary framework of the current concepts in personalization, customization and mass-customization research in Table 9.

PERSONALIZATION			
	<i>Intangibles (web-context, service)</i>		<i>Tangibles (products)</i>
	<i>Individual</i>	<i>Group</i>	<i>Individual and group</i>
<i>System initiated</i>	One-to-one personalization	Mass personalization	Mass-customization
<i>User initiated</i>	Web customization	Co-creation customization	

Table 9: Framework for personalization, customization and mass-customization research.

Most of the concepts in the framework originate from previous research although different terms have been used to describe the same concept. *One-to-one personalization* is personalization initiated by a system (also expressed as implicit or transaction-driven personalization or adaptivity). The possibility to personalize the offering to more than one recipient has been depicted as a personalization continuum in the previous research literature. The end-points of the continuum are one person versus several people; here personalization directed to several people is called *mass-personalization*. Customer-initiated personalization for configuring web sites is typically called *web customization* (also explicit personalization or adaptability). A new concept, *co-creation customization*, refers to a situation where consumers collectively personalize a website or a service to fit their common goals and preferences. The software applications of web 2.0 have made, for example, the use of folksonomy (user-generated taxonomy) popular (Mathes, 2004). Folksonomies make collective classification of information possible by allowing users to socially bookmark and tag stories, pictures and videos (Mathes, 2004), and thereby could also be used for personalization in a group level. For example, Xue et al. (2009) have examined a new approach, collaborative personalized search. The typical *mass-customization* research is still dominated by studies on tangible products, and it emphasizes affordability.

The validity of the above framework could, however, be impugned on two grounds. At first, information gathering on customers' preferences, needs and previous behavior usually combines both customer and company initiatives, thus the division to personalization and customization based on who takes the initiative does not always seem sensible. In addition, mass-customization research that has traditionally focused on tangible products has started to move into the service domain making the distinction between research into tangibles and non-tangibles less relevant. We suggest that personalization is used as the higher level construct since it is more open and it encompass several different forms of matching of individual preferences and offerings (Poulin et al., 2006). We see mass-customization as a more limited concept and a special case of personalization.

This paper aimed at increasing understanding of how personalization is perceived by scholars. The multiplicity of definitions and terms may actually harm the development of the field and thus a unified framework would be helpful. It would also be beneficial for the practitioners if the concepts were more lucid and understandable.

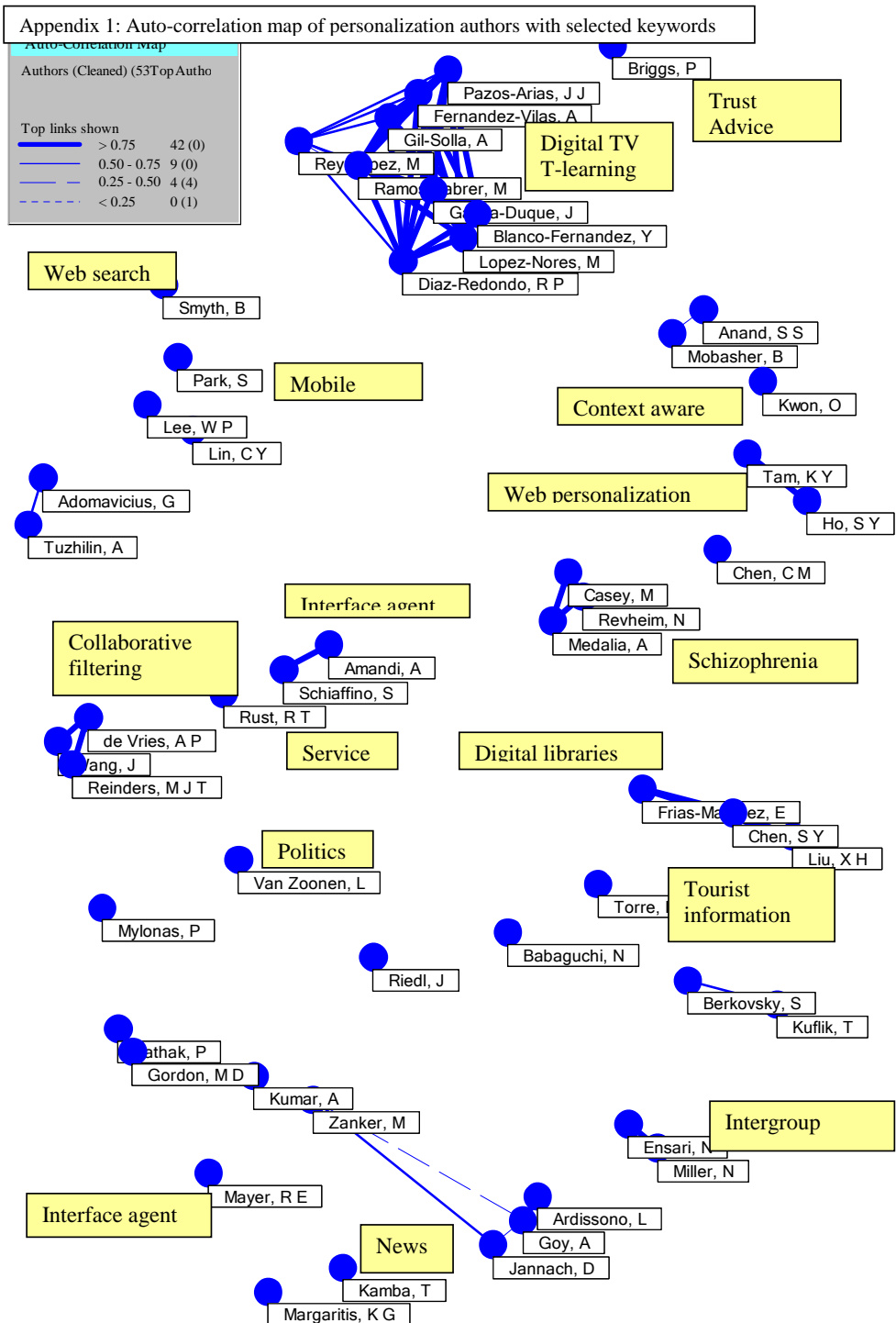
This research has the following limitations. The ISI Web of Science is regarded as a high-quality electronic database, and it is very representative regarding technical and technological journals. However, several business journals (e.g. advertising or communication journals) are not included in the electronic database

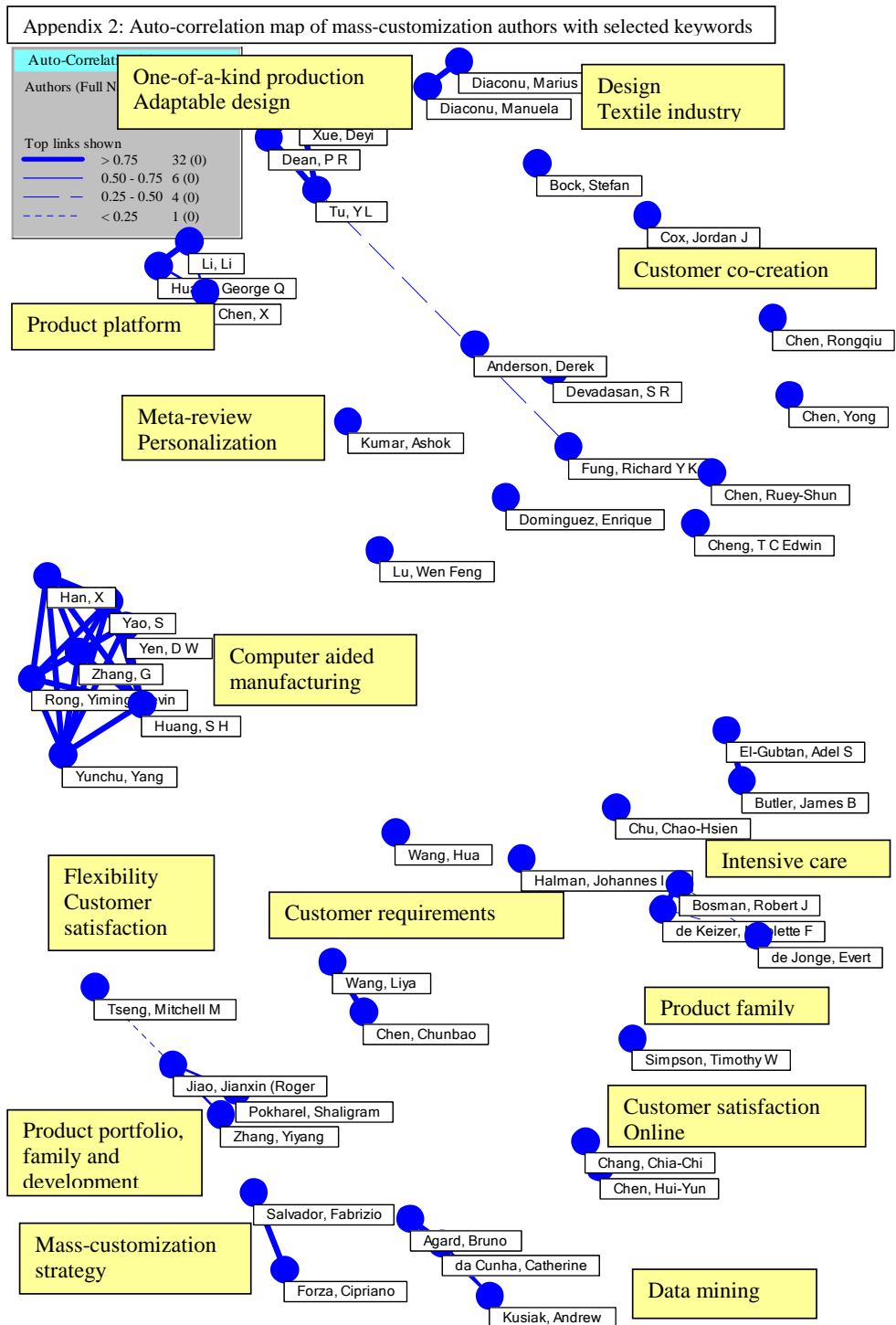
biasing the search results toward the technical point of view of personalization and mass-customization research streams.

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Essay 4: Anne Sunikka and Johanna Bragge (2009) Promotional Messages in the Multichannel Banking Context. Attractive or Annoying? Journal of Financial Services Marketing, 14(3): 245-263.

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Promotional Messages in Multichannel Banking. Attractive or Annoying?

Abstract

Financial service providers possess a great deal of information about their customers. Customer information is used to serve customers and deliver right messages to right customer groups. Owing to the nature of financial services – that is, the need for credibility, long-term commitment, and involvement of sensitive personal information - the planning and implementation of suitable marketing is extremely important. Financial services are offered through multiple channels; but the electronic channels have increased in importance both for customer acquisition and retention purposes. In addition, electronic channels offer personalization possibilities that did not exist before. In this study, we examine, with the help of electronic focus group interviews, the kind of channels customers prefer when promotional messages include different types of personalization. In addition, the acceptance of promotional messages in the online banking context is explored. The results indicate that the channel preferences of customers diverge depending on the type of personalization used in the message. Furthermore, based on the opinions of customers concerning several authentic online banners, a personalization matrix was developed. The findings show that preference-matching personalization with informative content is accepted by the majority of customers. The article offers financial managers new perspectives on bank marketing in general, and online bank marketing in particular.

Keywords: online banking; multichannel; personalization; marketing messages; electronic focus group

INTRODUCTION

The financial service sector is a prime example of an industry in which multichannel service delivery is the norm rather than an exception. Customers are accustomed to handling their financial affairs (payments, investments, insurances and so on) in branch offices, via call centers or through online bank applications. Lately, mobile banking has also attracted increased attention.¹ Furthermore; in the Nordic countries the high average adoption rate of online banking makes a well-integrated multichannel strategy a necessity. For instance, in our case country, Finland, 83 percent of the population uses the internet, and 72 percent of them conduct online banking, making it the third most popular application on the internet after e-mail usage and searching for information.² In addition, multichannel banking permits personalization without the need for actual face-to-face meeting with customers thus reducing the costs attached to interacting with customers.

Both multichannel and personalization research have emerged fairly recently, and both offer promising opportunities, especially for service delivery and marketing. Multichannel operations offer synergies, as they can result in an increased customer base, added revenue, and higher market share.³ The benefits of personalization are also assumed to be many for both marketers and customers. Customized products, services and communication are believed to attract customer attention and foster customer loyalty and lock-in⁴, and serve as protection against the commoditization of the offering.⁵

The aim of our research is to uncover consumers' perceptions about the acceptability of personalized promotional messages delivered through different channels, and especially in the online banking context. We carried out computer-mediated focus group interviews with 53 customers, and drew conclusions as to what kind of messages might attract positive attention at an online bank. Our study has two main contributions. We first present exploratory results of customers' channel preferences regarding personalized promotional messages. Two types of personalization, preference-matching content (PMC) and self-referent information (SRI), are used in the scenarios. Second, we shed light on several aspects of acceptance of personalized messages in the online banking context, and present a two-dimensional conceptualization of the acceptance of personalized messages. The use of personal information in the messages is, on the one hand, very tempting and increases the attention that consumers pay to promotional messages. On the other hand, when designed poorly, messages annoy and might actually be commercially harmful to the sender of the messages.

This article is organized as follows. We first review the previous literature on multichannel and personalization research focusing on financial services, and present the various theoretical frameworks that have guided our study. Thereafter, we describe the methodology of the study. In the fourth section, the results are presented. In the discussion and conclusions section, the theoretical and practical implications of the findings are discussed and the limitations of the study and the potential for future research are considered.

PREVIOUS RESEARCH AND THEORETICAL FRAMEWORK

Multichannel research

Multichannel research is a fairly recent research area. The research interest has intensified along the proliferation of electronic channels. Sousa and Voss⁶ define *multichannel service* as a service composed of physical and/or virtual components that are delivered through two or more channels. Rangaswamy and Van Bruggen⁷ refer to customers who use more than one channel to interact with firms as multichannel customers, and marketing strategies to reach such customers as multichannel marketing. According to Neslin et al.⁸, the main determinants of customer channel choice can be divided into five groups: *marketing efforts*⁴, *channel attributes*⁹, *channel integration*^{10,11} *social influence and situational factors*^{10,12} and *individual differences*.^{12,13} In addition, the *task characteristics* of goal-directed or experiential tasks^{14,15} and the *type of products purchased*¹⁶ may influence the channel choice.

Multichannel research has expanded substantially at the beginning of the 21st century; the two most prolific disciplines have been marketing and information systems. Most of the multichannel research deals with the adoption decision relating to a new channel (usually the internet).¹⁷⁻¹⁹ In addition, research into the continued use of electronic channels has increased recently.^{20,21} Research on the use of multiple channels is often empirically oriented, lacking a theoretical frame. However, the social-psychological theories; the Theory of Reasoned Action (TRA)²², the Theory of Planned Behaviour (TPB)²³ and a variation thereof, the Technology Acceptance Model (TAM)²⁴ are commonly employed theoretical frameworks for multichannel research.^{18,21,25} A keen area of research is the impact of multichannel usage on the structure and profitability of companies²⁶⁻²⁹, and on the satisfaction and loyalty of consumers.³⁰⁻³² In general, multichannel customers are assumed to be more profitable and loyal than customers who only use one channel.^{28,29} According to some studies, channel

choice has no effect on the satisfaction or loyalty of customers³³ because, in the multichannel environment, a high quality online service is regarded as self-evident.³⁴

However, relatively little research has been conducted that compares the effectiveness and acceptability of promotional messages delivered through different channels, apart from research where communication has not been the main focus.^{26,28,32} Greenyer³⁵ compared the attention span of consumers in major European economies towards different communication forms and found that consumers gave greater attention to print than to online communications. Shannon³⁶ investigated direct marketing of financial services companies and concluded that the main difficulties for the efficient use of direct marketing are stringent regulations within the industry and the legacy of outdated corporate cultures. Korkeamäki et al.³⁷ examined the effect of advertising on mutual fund cash flows in the Finnish fund market and reported that advertising in newspapers and online (the so called non-perishable sources) significantly affects cash flows. On the other hand, Brady et al.³⁸ found out that intrinsic brand cues (derived directly from the product, that is media reviews, objective product rankings and national reputation) are important for highly intangible services, like mutual funds. More tangible services are characterized by the importance of extrinsic cues (aspects that surround the product, that is personal referrals, price and advertising). In summary, the research into communication in multiple channels presents a rather anecdotal and contradictory picture.

Implied social contract framework

Despite increased research interest, it is difficult to develop a unified theory of multichannel use because multichannel behaviour is context-specific. These specific contexts tend to present unique requirements for the acceptance of certain channels, or tasks conducted in certain channels. For example, compared with the promotional communication of consumer goods, the communication of services that are based on credence attributes³⁹, such as financial services, probably require different types of message. Consumers might expect fairly conservative persuasion; assuming that they conceptualize marketing messages from an online bank as an implied social contract between the service provider and the customer, that is, accepting persuasive messages for certain benefits. Milne and Gordon⁴⁰ used an implied social contract framework to investigate the trade-offs between the acceptance of direct mail and privacy, and Gordon and Lima-Turner⁴¹ examined consumer attitudes towards internet

advertising with a similar framework. According to Milne and Gordon⁴⁰, when exchanges involve the promise of future benefits, they can be viewed as contracts that take place on a continuum from *discrete* (single transaction between unrelated parties) to *relational* (relationship between the actors). The social contract perspective emphasizes the role of norms in governing behaviour. According to Ivens and Blois⁴², the existence of norms simply allows those involved in exchanges to do so without having to think out exactly the terms of an exchange at each point in time and in each instance. In this article we are interested in uncovering whether promotional messages in the online banking context are acceptable and conform to the expectations of a typical bank customer.

Personalization

Personalization research has gained in popularity during the past ten years – the four-fold increase in the number of articles written on the subject is a clear evidence of this.⁴³ One of the most comprehensive conceptualizations of personalization is introduced by Fan and Poole,⁴⁴ according to which personalization can be conducted either by the *system* (implicit), or by the *user* (explicit). The object of personalization can be the *content*, *user interface*, *functionality* or *channel*. Furthermore, the framework makes a distinction between whether personalization is directed to individuals (individuated) or to groups of individuals (categorized). This is important because personalization targeted to an individual requires much more computing power. The authors prefer the terms *one-to-one personalization* (rather than individuated) and *mass-personalization* (rather than categorized). Studies on personalization of financial services and products is scarce, however there are a few exceptions⁴⁵⁻⁴⁷, but none of these concentrate on the online promotion of financial offerings. Our study is, as far as we know, the first to focus on personalized messages in the online banking context.

The focus of this paper is on two types of personalization; self-referent personalization and preference-matching personalization. According to Kircher et al.⁴⁸, the processing of *self-relevant information* is distinct from processing objective information, and users pay more attention to self-referent web content than they do to non-self-referent content.⁴⁹ It is common practice in personalization to include cues that draw the attention of the recipient in the promotional message (for example the name of the recipient, other personal information or past experience of the user). *Preference-matching personalization* refers to the relevant

content that matches the tastes and preferences of the user. Advanced information technologies such as collaborative filtering, data mining and click-stream analysis allows companies to provide the right content in the right format to the right person at the right time.⁴⁹ When preference personalization is used, customers may only notice that the message is personalized to them by the fact that the message content suits their situation in life, or that it promotes close variants of products (for example books) that the consumer has recently purchased.

Consumers' mindset

The extent of elaboration that customers typically award to promotional messages at an online bank is challenging to determine. According to Petty and Cacioppo's Elaboration Likelihood Model (ELM),⁵⁰ which explains how persuasive messages influence attitude change, personalization is expected to lead to a thorough processing of messages. However, the online banking context is believed to be characterized by customers' goal-directed mindset.^{51, 52} Mindsets represent cognitive orientations associated with certain thinking patterns and specific modes of information processing.⁵¹ The *deliberative mindset* leads to an accurate and impartial analysis of information and is associated with open-mindedness, whereas the *implemental mind-set* promotes an optimistic and partial analysis of information and is characterised by closed-mindedness. The major factor that determines mind-set formation on the internet is the goal that a consumer has in mind when visiting a site⁵³. For example, Pagendarm and Schaumburg⁵⁴ found that consumers with different mindsets have different levels of recall for banner advertisements. In addition, Wolfinbarger and Gilly⁵⁵ have shown that consumers with goal-oriented (implemental) and exploratory (deliberative) mindsets have different buying intentions. Sääksjärvi and Gratiana⁵⁶ reported that consumers in implemental mindsets do not wish to receive promotional messages, and personalization of messages for such customers would thus be a waste of time and resources. As consumers are assumed to be in a goal-directed mindset when accessing the online bank, we wished to examine how receptive consumers are to personalized messages.

RESEARCH METHODOLOGY AND DATA ANALYSIS

Method

We chose to employ computer-mediated focus group interviews^{57,58} in the same-time same-place mode⁵⁹ as the data gathering method. This interview mode allows the general instructions to be given verbally, but as each focus group participant responds by computer, they can answer electronically to the questions presented by the researchers, and also easily comment on each others' thoughts without waiting for their turn to speak. We utilized a Group Support System (GSS) known as GroupSystems® MeetingRoom, which has been designed to support teamwork and group decision making⁵⁹, but which can equally well be used for carrying out focus group interviews or discussions.^{58,60,61} A typical GSS setting consists of 10 - 25 networked computers in the same room, however, the developments of the internet have also enabled GSS meetings to be held virtually at different places and even at different times. The utilization of different computer-mediated systems in qualitative marketing and consumer research has been steadily increasing, see e.g. the studies by Montoya-Weiss et al., and O'Connor and Madge.^{62,63}

GSS was originally designed by Management Information Systems researchers to alleviate the common process problems caused by group work⁵⁹. These process problems result from, for example, the need to wait for one's own turn to speak, or the dominance of one or a few participants in the group. The strengths of computer-mediated GSS-sessions are built on (1) the simultaneous and anonymous contribution via computer, (2) a structured and prebuilt agenda, (3) the potential for real-time voting and multi-criteria analysis, (4) group memory in the form of written communication during and after the sessions, and (5) a complete set of records of the electronic discussions. Because of the anonymity of the contributions, shy or reserved participants can also take part in the discussions more actively than usual, making participation more equal. Moreover, the comments are judged on their own merit and not on the basis of who has presented them.

The computer-mediated focus group interview mode that we utilised can to some extent be seen as an intermediate form between traditional face-to-face and virtual focus groups.^{58,61} Some of the strengths of the method compared to traditional oral interviews are, for example, their efficiency (enabling larger group sizes, simultaneous communication, and automated reporting), digital group memory in the form of written discussion that helps to recall what the others have said both during and after the sessions, as well as the potential for anonymous

contribution. The advantages compared to a completely virtual implementation are the possibilities to ask for questions, to interact verbally, as well as to present confidential or physical support material during the sessions. The weaknesses of the method compared to traditional groups is that there is the lack of body language and facial expressions because the participants are mainly interacting with their computers, there is a need for special premises and technical expertise, and possible technical problems can undermine the considerable efforts to arrange the GSS session. Compared to fully virtual discussions, the computer-mediated same-place settings place restrictions on the participants' geographical recruiting and can be more expensive with respect to travelling expenses and venue costs.^{58,60,61}

Design

The research data was collected in September 2006 in collaboration with a Finnish financial conglomerate. The study comprised four electronic focus group sessions, each lasting 2.5 hours, with 11 - 14 participants in each group. Each session was administered by the same three researchers, one of them acting as the main facilitator responsible for the technology and overall conduct of the meeting. The interviewees were individually posed a small set of related questions at a time, and they were allowed to answer them in the order they wished, before the facilitator let them proceed to the next bundle of questions. Similar to an internet discussion board, the interviewees were able to view each others' answers as soon as they were submitted to the system, and the participants were also allowed to comment on others' answers or to further deliberate on their own responses.

We opted to carry out the sessions anonymously, it was thus neither possible to group the comments of a single participant, nor to associate individual comments with their background demographics. After each session ended, all the answers and comments were immediately available in writing through the benefit of the automated reporting function of the GSS tool.

Subjects

Altogether 53 persons participated in our focus group interviews. The bank that collaborated in the study provided a sample of customer details to a professional marketing company and commissioned it to recruit customers to take part in the focus group interviews. The participants were randomly selected from the three main customer segments of the bank: mortgage borrowers, investors and "active-rationals", that is, those customers who actively

use online banking, and particularly various rational tools, e.g. calculators available at the bank's website. In addition, a pilot group was employed to test the questions and the procedure, and it consisted of 14 students of the largest business university in Finland. However, 10 of the 14 students were also customers of the bank in question. We named the pilot group as the student group. In total, 49 of the 53 participants were genuine customers of the bank.

As the customers were familiar with transactional online environments, we knew in advance that they had the prerequisites for using computers as the interview media, and they could draw on their own experiences when inquired about online services. Thirty (57 %) of the participants were female and 23 (43 %) were male; all were between the ages of 21 and 49; most of the interviewees (55 %) were 20 to 34 year old. The average age of the bank's customers at that time was 43, and females represented 49 % of the whole customer population. The sample was thus slightly biased to females and younger customers. Occupationally, the main group was office employees. The majority of the interviewees used the internet daily (87 %). The respondents estimated that they can use the internet fairly well (an average of 8.34 with a Finnish school grade scale from 4 as the lowest, to 10 as the highest grade). See Appendix A for further customer details.

Interview scheme and data analysis

The questions and promotional messages were chosen in collaboration with the research team of the bank. The main themes of the focus group interviews were privacy and personalization in general and personalization in bank marketing in particular. We aimed to explore whether personal information (that is SRI) in promotional messages would receive greater attention than messages with no SRI. The type of self-referent information in the messages varied from neutral to sensitive, and we were interested in hearing the reactions of customers to different types of SRI. The messages were personalized using either the first or both of the following personalization approaches: i) *preference-matching*; messages were targeted to the correct segment (mortgage borrowers, investors, or active users of the online bank), and ii) *self-referent personalization*; there was personal information about the recipient in the messages (balance of the bank account, information on credit card usage and so on). In addition to case scenario questions, 11 different promotional messages were shown to the focus group participants. Appendix B presents sample questions and promotional messages shown during

the focus groups. The study was conducted in Finnish, and has subsequently been freely translated into English.

We first asked the focus group participants to imagine the following scenario: The bank with which the customers have a relationship sends them a message promoting a high-yielding mutual trust; this message is delivered through different channels. Furthermore, we asked the participants to imagine that they had 10.000 euros in their account and that they had searched for a high-yielding investment instrument for that amount for some time. We explored how the bank customers perceived messages that were personalized in different ways: the first message contained *PMC*; it offered a product that suited the situation of the customer. The second message included additional *SRI*; it included a remark relating to the amount of funds that the customer had in their bank account. Below is the exact wording of the messages.

Message 1) Preference-matching content (PMC): Invest in our high-yielding x-fund. The fees of the first two months are 0 € for all mutual fund investments. If you invest now, you will also be entered in a raffle of 1.000 €.

Message 2) Self-referent information (SRI): Invest the **10.000 € in your account** in our high-yielding x-fund. The fees of the first two months are 0 € for all mutual fund investments. If you invest now, you will also be entered in a raffle of 1.000 €.

The interviewees were asked to justify, in their own words, which channel they find the most suitable and the least suitable for the preference-matching and for the self-referent personalized messages. The channel options given were traditional direct mail, phone call from the bank's call centre, normal e-mail or e-mail functionality that is embedded in the online bank, and thus needs online bank authentication in order to be accessed. We did not examine a personal face-to-face interaction with a sales representative, even though we recognize the importance of personal interaction, especially in cross-selling. However, we were mainly interested in examining how computer-mediated communication compares with traditional mail and telephone marketing. Because we gave the participants the freedom to present justifications for their channel choices in their own words rather than using a predetermined set of reasons, we believe that we gained versatile and genuine justifications for their channel choices.

Second, we presented the respondents with 11 different promotional messages in the form of banner advertisements. These banners were presented one-at-a-time using personal booklets composed of glossy color prints, representing several complete screenshots of the authentic

online bank web pages. The respondents were told that the banner messages are situated in the part of the online bank that requires user authentication. In addition, we asked the respondents to imagine that they were in a 'live' context and the personalized information in the messages was directed to them. The personalized content of the messages varied from neutral (for example a reference to not making use of an electronic bank statement) to fairly sensitive (for example reference to the number of years left for mortgage payments or the balance of the bank account).

As data was capture in free response format, the data was preliminary coded at a category level (e.g. all the negative reactions about the use of SRI) after which the categories were divided into sub-categories (negative comments about insensitive use of SRI in general, about SRI and bank marketing not being compatible, about SRI in banners etc.). We used the idea of Elaborated Likelihood model (ELM) by Petty and Cacioppo⁵⁰ in guiding our data analysis. ELM explains why some aspects of persuasive messages influence attitude change, and consequently behavior, in various ways. We thus followed the cues that caught the attention of customers, including their emotional reactions to the messages. However, for reporting purposes, we merged the data into a category-level. The privacy and personalization questions were coded jointly by two researchers whereas one researcher was principally responsible for coding the banner questions.

RESULTS

Perceptions of consumers regarding personalization in different channels

As depicted in the methodology section, we first represented the participants a scenario with two different personalized messages, and asked them to justify which channel (direct mail, phone call, normal e-mail, e-mail functionality at an online bank) they find the most suitable and the least suitable for the messages. Table 1 presents the summary results of the channel preferences and Table 2 lists selected responses that represent the range of justifications the respondents gave for their choices.

Table 1: The most suitable and the least suitable channels for a preference and self-referent personalized messages

	<u>Preference-matching content (PMC)</u>				<u>Self-referent information (SRI)</u>			
	<u>Most suitable</u>		<u>Least suitable</u>		<u>Most suitable</u>		<u>Least suitable</u>	
	#	%	#	%	#	%	#	%
Direct mail	24	42,11 %	7	12,07 %	16	32,00 %	9	21,43 %
Phone call	10	17,54 %	22	37,93 %	10	20,00 %	22	52,38 %
Normal e-mail	15	26,32 %	13	22,41 %	2	4,00 %	9	21,43 %
E-mails at online bank	8	14,04 %	16	27,59 %	22	44,00 %	2	4,76 %
Total	57		58		50		42	

The results show that respondents chose direct mail as their most suitable channel for PMC (42 per cent of the responses). For the SRI message, the e-mail functionality at the online bank was selected as the most suitable channel (44 per cent). However, only 14 % of responses regarded this channel as the most suitable for the PMC message. Preferences were thus clearly divergent depending on the degree of personalization. Phone calls were regarded as the least suitable channel for both PMC (38 per cent) and SRI (53 per cent of the responses). In Table 2, the comments relating to themes that occurred most often when consumers reported the channel as either the most suitable or the least suitable are presented.

Table 2: Justifications for channel choices (PMC = preference-matching content, SRI = self-referent information, blank = the statement applies for both types of personalization)

Channel	Justifications for being the most suitable channel	Justifications for being the least suitable channel
Direct mail	<ul style="list-style-type: none"> - Flexibility with my timetable, I can read it when the time is right and I have time to think - Least irritating (PMC) - Personal alternative (PMC) - Other means of contacting are bad (SRI) - Best because there is personal information involved (SRI) - Good in combination with other channels (SRI) 	<ul style="list-style-type: none"> - Too general (PMC) - Goes straight to the garbage can (PMC) - Too personal, information is not suitable for marketing letters (SRI) - Goes straight to the garbage can with my account information because I don't read direct marketing mail (SRI)
Phone calls	<ul style="list-style-type: none"> - Possibility to discuss and ask questions - Sensitive information can only be discussed on the phone or in person (SRI) 	<ul style="list-style-type: none"> - All selling via the phone is irritating - Phone calls always come at the wrong time - It is impossible to decide on the phone - No way to check where the phone call actually comes from - Phone marketing is not suitable for banks (PMC)

Normal e-mails	<ul style="list-style-type: none"> - Flexibility with my timetable, I can read it when time is right and I have time to think - Easy to delete (PMC) - Environmentally friendly (PMC) - Can easily contact the sender of the e-mail (PMC) - Good in combination with other channels (e.g. phone) (PMC) - it is easier to do nothing (SRI) 	<ul style="list-style-type: none"> - The most insecure channel - Not a suitable channel for bank marketing (PMC) - I do not read my e-mail account regularly (PMC) - E-mails goes straight to a spam folder (SRI) - There should be no personal information on an e-mail (SRI)
E-mails at online bank	<ul style="list-style-type: none"> - Suitable context for marketing messages since I am already at online bank - I read the messages if there are not too many of them (SRI) - Safe channel for personal messages, I don't have to think about the origin of the message (SRI) - Easy to delete (SRI) 	<ul style="list-style-type: none"> - I don't read messages at the online bank

Even though the customers' channel choices are relatively similar for both PMC and SRI - for example, direct mail was regarded as a suitable channel for both promotional messages types (42 per cent and 32 per cent of the responses) - some of the justifications for channel choices diverged. Direct mail was considered the most flexible and the least irritating method of promotion. For SRI, direct mail was preferred by some respondents as the message contained sensitive information; other respondents rejected direct mail for the same reason. Phone calls were considered as the least suitable method for marketing bank products with both types of personalization (38 per cent and 52 per cent of the responses). In addition, security concerns were raised because consumers are unable to guarantee the authenticity of the caller. The opinions concerning normal e-mails were divided – on the one hand, they were considered a flexible way of contacting customers; on the other, normal e-mail was considered as the most insecure method of making contact with customers. The greatest difference in opinions was with the e-mail functionality embedded at the online bank. The customers commented that they are not in the habit of reading the messages as their content is usually trivial. For SRI, consumers emphasized the sensitive nature of the information and the suitability of the channel for promotional messages – the e-mail application at online bank was considered the most suitable by 44 per cent of the responses.

Furthermore, the respondents spontaneously mentioned the possibility of multichannel marketing - the combination of several channels for promotional marketing - particularly normal e-mail and phone calls in this case. One respondent noted that the e-mail functionality at an online bank is an excellent channel for consumers to make contact with the bank, but not

the other way round. The consumers thus provided evidence for an active consumer⁶⁴, a consumer who prefers taking the initiative in the customer - service provider relationship, rather than being a passive recipient of promotional messages. Some consumers referred to personal interaction with bank personnel, and stated that if they had received information about a new fund when visiting a bank branch, they would have considered it as a service. However, when the same content is delivered through any other channel, it is perceived as push marketing. It seems that interpersonal communication permits different content than messages delivered through other channels.

It should be noted that more responses were given to PMC than SRI. We asked the customers to indicate only one channel as the most and least suitable channel. If each customer had responded once, there would have been 53 answers in each column in Table 2; however, the number ranged from 42 to 58. We speculate that this was because the order of preference-matching and self-referent messages was not changed, and customers might have felt that they had already answered the question when they had answered the PMC questions. However, we do not believe that this distorted the final results.

Consumers' perceptions about promotional messages at online bank

Several promotional messages in the form of banner advertisements were shown to the respondents who commented about different elements of the messages. The content of the messages varied from neutral (for example reference to the lack of the electronic bank statement) to fairly sensitive (for example to the number of years of mortgage payments remaining, or the balance of the bank account). Appendix B presents examples of the messages that were shown to the consumers in a banner format.

The focus group participants quickly drew conclusions about whether the messages shown to them represented information or advertising content. Messages with typical advertisement pictures (attractive young people or stunning scenery) were perceived as aiming at selling rather than informing. Message texts received rather negative feedback; for example "*The customer should not be considered stupid by asking, 'have your thought...?'*" (investor group) and "*Overly aggressive messages and imperatives won't do in the messages*" (student group). However, some customers commented that the question-format was the cue that got their attention "*...when a question-format is used, it makes customers think*" (active-rational group).

Furthermore, self-referent personalization attracted attention, but often quite negative attention. As the messages were deliberately planned to also include sensitive SRI in order to determine the boundaries of what is accepted by the customers, the customers' desire to be left alone (one aspect of privacy) was mentioned often. Customers commented: *"Once again a too pushy ad. Keep this away from me. I am just paying bills"* (student group) and *"Monetary affairs are private, and I don't want to be told what to do unless I have asked for the advice myself"* (investor group). However, there were some customers who stated that they liked this kind of advertising and were interested in receiving messages about *"anything that might be beneficial for me"* (investor group). In addition, they stated that *"the message is quite personal, but that was what caught my attention"* (investor group). Nevertheless, the majority of customers disliked the use of sensitive SRI and perceived it as improper for banks to employ this approach. The use of SRI seems to be a double-edged sword; on one hand, a majority of customers do not find it acceptable. However, on the other hand, if self-referent information is not used, customers might find the texts *"boring and full of typical marketing rhetoric"* (active-rational group). Despite negative comments, almost all participants stated that they would prefer targeted messages to general ones, but the self-referent information must not occupy too prominent a status in the messages, rather it should be in the background. This view lends support to Tam and Ho,⁴⁹ who found that if used excessively, SRI is not an efficient method of attracting attention.

In addition to commenting directly about the characteristics of the messages, customers also stated their opinion about the online bank as the platform for promotional messages. The main negative comments were due to the breaking of the expected⁴² and "typical" behaviour of banks. The key behavioural expectations in the form of representative quotations are listed below.

Table 3: Key expectations of customers regarding bank marketing

Expectation	Exemplary quote
Advertisements should not be placed on the online bank	<i>"After I have authenticated myself, I don't want to see any ads. I am quite happy to find out about products and services on the normal website."</i> (student group)
Only reliable, objective and relevant messages are acceptable	<i>"I am much more conservative when it comes to banking than to other online retailers."</i> (active-rational group)
Discreet use of self-referent information is permitted in promotional messages	<i>"Personalized messages are acceptable as long as personal account information is not used in the ads."</i> (active-rational group)

Most of the participants expected that the authenticated part of the bank's website contains tools that help customers conduct their monetary affairs as quickly and efficiently as possible. If there are promotional messages on the website, they are expected to be objective, relevant, reliable, and more conservative than on other websites.

Based on the perception of customers regarding banner messages, we developed a quadrant matrix relating to the acceptability of personalized marketing messages in the online banking context. The vertical dimension is composed of two types of personalization: PMC and SRI. SRI messages also include preference-matching content. The horizontal dimension of the matrix was determined through the analysis of customer comments that referred to advertising or informative content. Even though presented as a dichotomy, this dimension is a continuum, because messages often have both advertising and informative elements. Awad and Krishnan⁶⁴ also found that consumers made a distinction between personalized service and advertising.

We derived customers' perceptions regarding the messages after analyzing the responses to all messages. In addition, we explicitly asked at the end of the sessions whether customers perceived the messages as advertisements or as informative customer service, and what kind of personalized messages would be appealing for them. Only the electronic bank statement message (Your bank account does not yet have an electronic bank statement) was clearly perceived as customer service and other messages were predominantly perceived as advertising. We first present representative examples of the customer comments that guided the construction of the matrix in Table 4, and thereafter Figure 1 depicts the personalization matrix relating to how customers perceived the messages.

Table 4: Customers' comments concerning the personalized messages

1. Advertising content with self-referent information	
The monthly payment on your mortgage is 900 €. Why don't you reduce the amount?	<i>"It is aggressive if my personal information is connected to direct marketing. The marketing message would be good without the reference to my mortgage."</i> (mortgage group)
You have 23 years of mortgage life in front of you. Why don't you take a repayment guarantee insurance?	<i>"The personal touch sounds tempting, but at the same time scary."</i> (student group)
2. Advertising content with preference-matching information	
Earn interest on your savings – start investing in mutual funds!	<i>"If I had extra funds, I would definitely click this ad. The text is very promising!"</i> (student group)
We offer you less expensive credit.	<i>"...In general, seeing ads at the website is irritating. It is insignificant info that I do not want and I have not asked for. I am not at the website in order to read ads, I would thus under no circumstances open any ads."</i> (investor group)
3. Informative content with self-referent information	
Your bank account does not yet have an electronic bank statement.	<i>"This is actually the only way to advertise without irritating. A calm and non-pushing banner...."</i> (student group) <i>"Information about a service that I have not used is a useful piece of information."</i> (active and rational group)
4. Informative content with preference-matching information	
<i>"Messages can be perceived as personal, but customers do not have to know that the messages are personalized for them."</i> (mortgage borrower group)	
<i>"It would be a real customer service if a form with an option 'contact me with regard to credit, bank card, credit loan' etc. financial affairs would appear at the online bank, where I could define the channel and the time of contact that suit me."</i> (active-rational group)	
<i>"Of course it is more useful to personalize messages. I think that customers do not even notice that messages are personalized to their situation in life. They are, however, more interested in the messages since the content touches them."</i> (student group)	

The combination of advertising flair and SRI in a promotional message (quadrant 1) is generally disliked. This is particularly the case with sensitive information (for example balance of the bank account), where consumers feel that their privacy is invaded. However, SRI attracts the attention of some customers, even with messages perceived as advertising. The combination of preference-matching personalization and advertising content (quadrant 2) is more acceptable than SRI and advertising, especially when the offer suits the present situation of the customer. However, in the online banking context the idea of marketing, nevertheless, received several negative comments. When the content of the message is

informative and includes SRI (quadrant 3), customers perceive it as a service. However, the SRI and the wording of the message should be tactful and discreet. Since we focused on examining SRI, we do not have an example of a neutral message containing informative and preference-matching content. Customers' comments regarding acceptable promotional messages guided the construction of quadrant 4.

Type of content personalization	Type of message	
	Advertisement	Informative customer service
Preference-matching personalization	2. Ignorance or irritation if the message is not perceived as relevant	4. Mostly accepted and appreciated
Self-referent personalization	1. Mostly not accepted, annoyance	3. Noticed and accepted if SRI is not too sensitive

Figure 1: Matrix of personalized messages

DISCUSSION AND CONCLUSIONS

Nordic banks have been successful in moving their customers online.² The next challenge is to transform the well-functioning transactional channel into a support channel for sales efforts. Previous research has found that the mind-set of a consumer has an impact on their consumer behaviour.⁵⁴⁻⁵⁶ As Sääksjärvi and Gratiana⁵⁶ point out, the online banking environment is, in general, regarded as a goal-oriented service that customers enter with an implemental mind-set, which usually includes close-mindedness, which presumably also applies to promotional efforts. In this article, we have explored how customers of a Finnish financial conglomerate perceived promotional messages in the online banking context. Furthermore, we took a broader perspective and inquired opinions of the customers regarding promotional messages delivered through various channels and containing preference-matching and SRI.

The online banking context presents a unique platform for personalized messages since it removes many costs normally associated with messages on other websites: the connection is secure, the need for additional information disclosure is reduced because banks are already in possession of the financial information of their customers, and there is no immediate

competition for the attention of the customers by other marketers. An online bank customer exposed to online marketing messages actually has two contracts⁴⁰ with the bank; the first is an explicit contract with the bank about the use of online bank services. The second contract is implicit regarding acceptance of promotional messages. In the social contract framework⁴² social norms play an important role. It seems that for the majority of customers, promotional messages at an online bank are a breach of the implicit contract in which customers receive benefits in return for accepting promotional messages. Furthermore, the SRI in promotional messages is considered an invasion of privacy⁴⁰. In the words of one of the consumers: *"I am already a customer of the bank, I should have the right to be left alone when I have not explicitly asked for information"* (student group). Moreover, customers assume that banks only use aggregated information about customer behavior rather than explicitly targeting customers on a one-to-one basis.

This study adopted two personalization strategies suggested by Tam and Ho⁴⁹: self-referent and preference-matching personalization. The main theoretical contribution of the study is the divergent impact of the different types of personalization. If SRI-personalization is employed, customers attend to the messages, and a heuristic rule of the suitability of the messages is evoked. However, the indiscreet use of SRI can destroy the favourable effect. When PMC is adopted, a central route of elaboration is evoked but the message is not necessarily noticed in a goal-directed online bank environment. In addition, the earlier research on personalization has focused on the internet environment^{43,44,49} rather than comparing the effectiveness and acceptance of personalization through different channels. This research thus contributes to the theoretical discussion by showing the need to investigate multiple channels simultaneously in order to understand the in-depth views of customer preferences when a multichannel approach is employed. Furthermore, the context-specificity of the acceptance of promotional messages is an under-researched area (with a few exceptions, such as Shannon³⁶ and Rojaz-Méndez et al.⁶⁶) to which our research has implications.

The research insights about channel preferences and acceptability of promotional messages are relevant and can be easily applied in practice. Customers are used to multichannel messages and services in the financial services context. When direct mail was compared with other channels through which customers receive personalized messages, the approach performed well. Some customers regarded contacts by phone or by e-mail as improper for bank marketing. In addition, banks seem to underestimate the channel that they have at their disposal at the online bank. In this regard, our case bank does not utilize the potential for

sending promotional and informative messages individually to customers through the e-mail functionality embedded at the online bank. However, customers reacted positively to this channel, especially when sensitive information was delivered. Most of the negative comments towards online bank's e-mail were because of customers not being accustomed to checking and reading the messages.

The quadrant matrix of the messages was constructed based on the analysis of the customers' comments about several promotional banner messages at the online bank. The main lesson for the management of the financial service companies is that customers prefer discreet use of personal information in the messages. For several customers, the account balance information or information relating to the remaining years of mortgage loan was regarded as too sensitive information to be used in banner messages. In addition, the wording of messages should be tactful, without imperatives and 'pushy' marketing content. Preference-matching personalization might be a more efficient strategy than the use of SRI to reach customers: PMC does not uncover the ability of banks to process customer information on one-to-one basis, or irritate customers by the indiscreet use of self-referent information. As a conclusion we can summarize that bank marketing is different to marketing in other contexts; it has to be more discreet, tactful and sensitive, for this is what the customer expects and to market in any other way would be considered a breach of the social contract.

Research limitations

We believe that the chance for customers to express the channel that they preferred and disliked - combined with justifications in their own words - gave depth to the empirical results. In addition, real customers of the bank were invited to the focus group interviews making the results more credible. However, as with any empirical research, there are limitations in our study. The focus group participants were asked to consider themselves as an imaginary customer that has, for example, investment or loan management needs. Moreover, customers were asked to imagine that the SRI used in the messages was relevant to them, that is, if the message mentioned 10.000 euros in their account, the customers should have imagined that they had, indeed, this amount of funds at their disposal. In addition, the wording of the messages produced several negative comments, and the use of personalized information in the messages might have gone unnoticed as most of the comments concerned the excessively 'pushy' texts in the messages.

Furthermore, we enquired about the opinions of a fairly homogeneous group of customers of only one Finnish bank, and according to Rojas-Méndez et al.⁶⁶, the country of residence is significant when predicting behavioural avoidance of advertising. Thus we need to be cautious about the generalizability of our results to other countries or cultures, and present this study as an example of a country with one of the highest adoption rate of online banking² and high levels of trust in financial institutions, banks in particular.⁶⁷

Further research

The research method employed in this study, focus group interviews, can often bring out and identify critical opinions from consumers, however, predicting success based on focus group results is more difficult, and hence quantitative research are needed⁶⁸. Our research project continued with a follow up field experiment at the online bank's website⁶⁹, and the results of the focus group interviews guided the composition of the personalized messages employed. The wording of the advertisements in the field experiment was less 'pushy', and SRI was used more discreetly. Three different field experiment groups were created from the bank's customers. Each group was shown a different personalized message in the form of a banner advertisement as they logged in to the online bank. Personalized messages performed better than general messages measured by attention and actual sales, and two out of three cases did better than comparable direct mail marketing.⁶⁸ We can thus draw a conclusion that according to our experiments and contrary to previous research⁵⁶ personalized messages in goal-directed websites are not a waste of resources.

In general, after an experimental stage of personalization, banks should aim at designing and implementing a more systematic approach to engaging in personalized marketing at their online bank. This will require streamlined processes and an increased use of personalization technologies, thus posing multifaceted managerial challenges for the bank. The few personalization process frameworks presented in the literature^{70,71} should provide useful guidance in this endeavour. However, the integration of multichannel marketing messages and the more active role of customers in the relationship pose both practical and theoretical challenges.

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Appendix A: Demographic data of the focus group participants

	Pilot group	Active and rational group	Mortgage borrower group	Investor group	Total
Gender					
Female	8	9	6	7	30 (57 %)
Male	6	5	5	7	23 (43 %)
Total	14	14	11	14	53
Age					
20-24	5				5 (9 %)
25-29	6	7	2		15 (28 %)
30-34		4	5		9 (17 %)
35-39	1	3	4	5	13 (25 %)
40-44	1			3	4 (8 %)
45-49	1			6	7 (13 %)
Total					53
Occupation					
Student	11	6	3		20 (32 %)
Worker		4	4	1	9 (15 %)
Office Employee	4	6	6	10	26 (42 %)
Other	2	1	1	3	7 (11 %)
Total					62
Use of internet					
Daily	13	12	10	11	46 (87 %)
5-6 weekly	1	1	1	3	6 (11 %)
3-4 weekly		1			1 (2 %)
Total					53

Appendix B: Examples of focus group questions and banner advertisements

1. How do you react to information gathering from you while you are on the internet? In your opinion, what benefits or drawbacks does the information gathering have?
2. For which purposes would you be willing to disclose – or not willing to disclose information?
3. Do you know enough about the gathering and use of information on the internet?
4. Do you feel being in control of information gathering on the internet?
5. What do you understand by the term “privacy”?
6. What do you understand by the term “personalization”?
7. Do you appreciate personalized products and services on the internet? What do you appreciate about them, and what benefits do you feel you gain from them? What are their disadvantages?
8. Would you like to define your personal preference information yourself, or do you prefer a computer system to define it e.g. based on your behavioural information? In your opinion, which method produces better offers for you?
9. Do you have topics of interest about which you would be always or almost always interested in receiving information and offers?
10. Do you trust banks regarding storing your information? Do you believe that they use your information in an acceptable way?
11. Do you find it acceptable that banks use information about your economic status in their marketing communications? What kind of messages would you like - and dislike - receiving from banks?
12. What do you think of the following statements? The rating is as follows: totally disagree = (1); mostly disagree = (2); neutral = (3); mostly agree = (4); totally agree = (5).
 - I appreciate websites the content which I can configure myself.
 - I appreciate websites with which I can chose to customize the user interface.
 - I appreciate websites the content of which is configured by the computer system.
 - I appreciate websites where the user interface is configured by the computer system.

Have you considered that credit loans from banks are less expensive?



You have not used the credit card features of your bank card. Fulfill your dreams and take the benefits of the flexible payment timetable.



Your monthly payment on your mortgage is 900 €. Why don't you reduce the amount?



An investment fund is suitable for everybody



Your bank account does not yet have an electronic bank statement.

Essay 5: Johanna Bragge, Henrik Kallio and Anne Sunikka (2008)
Personalized Marketing Messages in an Online Banking Context: Does
Anybody Notice? *Proceedings of the 16th European Conference on
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**PERSONALIZED MARKETING MESSAGES IN AN ONLINE BANKING
CONTEXT: DOES ANYBODY NOTICE?**

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PERSONALIZED MARKETING MESSAGES IN AN ONLINE BANKING CONTEXT: DOES ANYBODY NOTICE?

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In the 21st century the amount of research in personalization has grown exponentially. Much of this increased interest is linked with the Internet and other information technologies that enable efficient servicing of customers even on one-to-one basis. This paper reports on a research project, the first part of which studied via focus groups the perceptions of a Nordic bank's customers towards various personalized marketing messages in their online bank. We employed the Elaboration Likelihood Model (ELM) of persuasion as a theoretical framework. In the second part, a 9-week field experiment at an online bank was conducted. In this experiment, customers were shown personalized banner advertisements when they logged in to their online bank service. Three different types of financial products were promoted to three groups of customers. We compared the effectiveness of the personalized banners vs. default banners via click-stream analyses. Moreover, these online promotions were compared with traditional direct-mail promotions. Our results are encouraging. The lifts of personalized banners compared to a default banner varied between 12 and 120. The pull-percentages, which measure the actual sales, were also higher than in the direct-mail promotions in two of the experiment's three product cases.

Keywords: Personalization, Online bank, Online marketing, Online advertising, Click-stream data.

1 INTRODUCTION

Personalization is touted as one solution for information overload and the commoditization of offerings as customers will receive only those promotions, services and products that are of interest to them. Several studies emphasize personalization as the main tool of attracting customer attention and convincing them to purchase (Ansari and Mela, 2003; Goldsmith, 1999; Kalyanam and McIntyre, 2002; Wind and Rangaswamy 2001). Large-scale personalization has been made possible only through advances in information technology, even though personalization as a phenomenon is nothing new. The context of this study is online personalization, and particularly, how personalization of marketing messages could be implemented in online banking.

Nordic banks have been successful in moving their customers online. In Finland, 79% of the population uses the Internet, and online banking is the third most popular activity of the Internet users (84 % of them uses this application) after sending or receiving e-mails (90%), and searching for information about goods and services (86 %) (Statistics Finland, 2007). However, so far, the online banking applications have emphasized the goal-directed needs (Hoffman and Novak, 1996; Moe 2003) of customers by providing tools for payment of bills, following investment developments and conducting selected deals online. Next, banks aim at catching the customers' attention when they enter the online bank in a goal-directed mindset. The context presents a unique platform for personalized communication since it removes many costs normally associated with messages in other websites: the connection is secure, there is no need for information disclosure since the bank is already in the possession of the financial and other information of their customers, and there is no competition for the attention of the customers by other marketers. Attempts have been made to mould this environment into a sales channel in addition to the well functioning information and transaction channel. However, the lack of human contact in an online banking context might lead to decreased loyalty among the customers (see e.g. O'Loughlin and Szmigin, 2006). One way of preventing this could be to provide personalized online services to the customers by inferring from their previous behaviour and expected needs the communication, product and service offerings that the customers would appreciate and experience as relevant and up-to-date.

In this paper, we use field experiments to study whether personalized marketing messages directed to the right group of online customers would result in increases in sales. The paper is structured as follows. Prior research on personalization and banking is reviewed in Section 2. In addition, we present the typical information processing stages and the Elaboration Likelihood Model (ELM) of persuasion that are used in our study. The methodology of our study is described in Section 3, and the field experiments are described in Section 4 of this paper. We analyze the effectiveness of personalized marketing messages with the help of click-stream data, and compare the results with default banners and with the more traditional way of approaching customers, i.e. direct-mail marketing. Discussion and conclusions end the paper in Section 5.

2 PRIOR RESEARCH

Personalization is an interesting and puzzling concept, and various definitions of it are presented each emphasizing a particular lens to personalization (Sunikka and Bragge, 2008). The theme attracts interest in several disciplines - especially marketing, computer science and information systems (IS) scholars examine personalization - but their approaches and methods of inquiry differ from each other. Most of the research on personalization takes a technological view on the phenomenon (e.g. Cao and Yunfeng, 2007; Zhang and Jiao, 2007). Another common theme is the interplay between personalization and privacy (e.g. Awad and Krishnan, 2006; Chellappa and Sin, 2005). Personalization as a process and the organizational changes necessary have received scant attention with a notable exception of e.g. Adomavicius and Tuzhilin (2005). In addition, the effectiveness and efficiency of

personalization in consumer decision making context are in need of further research (e.g. Ho, 2006; Tam and Ho, 2005; Tam and Ho, 2006).

The amount of research on personalization has multiplied in the 21st century. A simple search of articles containing the term personalization (or personalisation) in the ISI Web of Science database shows almost a 4-fold increase between periods 1997-2001 (189 articles) and 2002-2006 (716 articles). The IS research on personalization is said to fall into three categories: i) applications of personalization technologies, ii) philosophical issues such as privacy regulations and ethics related to data collection and processing, and iii) technologies for mining user transaction data and deriving rules to generate personalized content (Ho, 2006). However, according to Tam and Ho (2006) the work by IS researchers in the area is scant, and there is little theoretical work in the literature that considers the relationships between personalized content and the cognitive, behavioural, and decision measures of users. Our study addresses this gap.

One of the most comprehensive conceptualizations of personalization is introduced by IS researchers Fan and Poole (2006), and it builds on the earlier works of Instone (2000) and McCarthy (2001). According to Fan and Poole's (2006) framework (see Table 1), personalization can be conducted either by the *system* (implicit), or by the *user* (explicit). The object of personalization can be the content, user interface, functionality or channel. Furthermore, the framework makes a distinction whether personalization is directed to individuals (individuated) or to groups of individuals (categorized), which is important as personalization targeted to an individual requires much more computing power. Sunikka and Bragge (2008) suggested two clarifying terms, namely *one-to-one personalization* for individuated and implicit content personalization, and *mass personalization* for categorized and implicit content personalization. These terms are used also in this paper.

Who does it?	To whom?	What?			
		<i>Content</i>	<i>User interface</i>	<i>Functionality</i>	<i>Channel / Info Access</i>
<i>Implicit (system)</i>	Individuated				
	Categorized				
<i>Explicit (user)</i>	Individuated				
	Categorized				

Table 1 *Implementation possibilities in personalization, based on Fan and Poole (2006, 187 – 188).*

Banks and especially their relationship with customers has been a keen subject of research (e.g. Ball, Coelho and Manchá, 2004; Ellis-Chadwick, McHardy and Wiesehofer, 2002). Joseph et al. (2005) conclude that nowadays banking is perceived more as an impersonal service, and the speedy and efficient service replaces what is lost in face-to-face service. Personalization in banking context is mainly examined from the viewpoint of personal interaction with the customer service representative (e.g. Huang and Lin, 2005; Ball, Coelho and Vilares, 2006), but it has also been speculated to bring differentiation advantage online (Boyes and Stone, 2003). If customers feel that online banking is impersonal and there are no differences in the e-services offered by different financial institutions, one way of differentiating the service is to personalize the content to the customers. An example of content is embedded marketing messages, which is the focus of our current research.

There exist two complementary paradigms that examine the effectiveness of online advertising (Hollis, 2005). The “brand building” paradigm concentrates on measuring brand recall and the attitude towards the brand or an advertisement. The “direct response” paradigm treats online advertising like direct marketing, and click-through rate is seen as a proper measure of effectiveness (Chandon, Chtourou and Fortin, 2003; Hollis, 2005). The click-through rate captures the proportion of banner clicks to total number of clicks (Chandon et al., 2003). Other commonly used measures include the hit rate, response time to banner ads, the pattern of online purchasing, and the time spent at a website (Chatterjee, Hoffman and Novak, 2003). In our study, we mainly adhere to the measures of the direct

response paradigm, although we acknowledge the complementary view presented by Hollis (2005) and the additional brand building effects that are not as directly observable. Dreze and Hussherr (2003), among others, state that the overall click-through rates have declined steadily (from 7% in 1996 to 0.7% in 2002) as consumers become more used to the Internet and learn to avoid banners. Despite of this, web banners are still extensively used, also for their brand building effects.

In general, the objectives of online advertising are to 1) get the consumer to click on the ad, and 2) to keep the consumer at the website as long as possible and increase the amount of time spent (stickiness) (Chandon et al., 2003). But what happens in the consumer's mind? Typical information processing models consist of *attention*, *elaboration* and *behavior* stages, although every message detected will not go through all the stages (Tam and Ho, 2005). The socio-psychological Elaboration Likelihood Model (ELM) of persuasion (Petty, Cacioppo and Schumann, 1983; Petty and Cacioppo, 1986) examines how persuasive messages influence attitudinal changes. The model is used in many areas of research, e.g. in public health communications (e.g. Rucker and Petty, 2006), technology adoption (e.g. Bhattacharjee and Sanford, 2006) and personalization (e.g. Tam and Ho, 2005). ELM explains why some aspects of persuasive messages influence attitude change, and consequently behavior, in various ways.

ELM postulates that the *information processing route*, either *central* or *peripheral*, influences the attitude change. The route taken depends on the motivation and ability of the message recipient to elaborate on the messages. When the motivation and ability exist (i.e. the elaboration likelihood is high), the message recipient is assumed to use the central route characterized by considerable cognitive elaboration. The recipient focuses in depth on the central features of the messages, and evaluates message arguments and implications carefully. With low elaboration likelihood the peripheral route is taken, and the recipient examines the message quickly or focuses on simple cues, and applies simple decision making rules or heuristics. For example, a rule "Personalized recommendations are tailored for me and therefore can be trusted" might be invoked in e-commerce sites by mere saluting the message recipient by his or her first name (Tam and Ho, 2005). However, if the content (advertised product or service) of the message matches the preferences of a consumer, the user is more likely to process the message to a larger extent (Tam and Ho, 2005). The central processing with a heightened level of elaboration is supposed to have a more profound impact on the attitude than peripheral processing, and thus, to influence positively on a firm's promotional activities. The way we applied the ELM in our study is described under the methodology section.

3 METHODOLOGY

The data in this study were gathered in two stages. First, we conducted qualitative focus group interviews and based on their results, we planned the field experiments that were carried out in a bank's website. The purpose of the group interviews was to gain insight into how customers react to and value personalized marketing messages in their online bank. Four focus groups were conducted in September 2006 via computers in a face-to-face setting (see e.g. Kontio, Bragge and Lehtola, 2007 for the technique). A pilot group and three customer groups (with 11-14 participants) of a Nordic retail bank were interviewed. Each focus group session lasted for 2.5 hours and was administered by three facilitators, following the same predefined agenda. The focus groups started with general questions about privacy and personalization, and continued with several cases and questions related to personalized marketing messages in an online banking context. These case messages were personalized from two angles: i) they were targeted to the correct group of customers (preference-matching), and ii) there was personal, i.e. self-referent information (account information, information on credit card usage etc.) in the messages. The messages were presented to the respondents in glossy colour print copies, representing several complete screenshots of the authentic online bank web pages. The respondents were told that the messages are situated in the part of the website that requires user authentication. In addition, we asked the respondents to imagine that the use context and self-referent information in the messages are their own.

The message variable that was assumed to be processed centrally was the personalized and relevant (preference-matching) content, i.e. the product or service offered. The self-referent information in the message, the location of the message on the website, the pictures used in the messages and the tone of “voice” used were regarded as peripheral variables. Overall, the attitudes toward the self-referent information in promotional messages were rather negative. As the ads that we tested were deliberately planned to use self-referent information fairly aggressively in order to determine the boundaries of what is accepted by the customers, the customers’ desire to be left alone (one aspect of privacy) was mentioned often in the focus groups. Some customers felt, however, that the ads were refreshing and got their attention. Pictures in the marketing messages were immediately attached with advertising flair, and the location of the banner determined whether the banner was even noticed by the customers. Despite many negative comments, almost all participants stated that they would prefer targeted ads to general ones, but the self-referent information must not occupy too prominent status in the messages, but rather to be in the background. As the emphasis of this paper is on the subsequent field experiments, we refer to Sunikka, Lähteenmäki and Bragge (2007) and Bragge, Lähteenmäki and Sunikka (2007) for further details.

Based on the focus group insights gained, the field experiments were designed to be conducted on the bank’s website in November 2006 – January 2007. This constitutes the second data gathering stage of our research. Three different field experiment groups were created from the bank’s customers. Each group was shown a different personalized message in the form of a banner advertisement as they logged in to the online bank. The first group consisted of 281 customers who lacked the electronic bank account statement service, and they were shown a message: “*Problems with archiving? Switch your bank account statement to the net!*”. The second group was formed of 300 customers who had only standard loans, and they received a message: “*It is worthwhile to concentrate – even consumption loans.*” The third group included 293 customers who had a bank card that was about to be withdrawn from the market, and their message read: “*Your X-card is about to expire. You can switch easily to Y-card on the net.*” Each customer could belong to only one group. Direct online purchase of the promoted product (or service) was possible in the first group. The other two cases required personal visit at the branch office at a later stage, although the application process could be initiated online.

All our experiments belong to the implicit and content personalization zones of Table 1. The participants to the net bank statement group were subjects to *mass personalization* as the messages were directed to a group of users. Since loans and bank cards can be granted only to customers that fulfil certain criteria, the customers in these two groups were selected one-by-one. Hence, the *one-to-one personalization* is the type of personalization in the two other experiments.

Click-stream data was used in the second data gathering stage. The term click-stream denotes the electronic records of Internet usage recorded by company web servers, and it indicates the path a visitor takes through one or more pages or websites (Bucklin et al. 2002). In the online bank context, the pages can be categorized in three main levels: *administrative pages* (registration and basic transaction pages), *product related pages* (home page, category pages for different products, different product pages, brand pages, search result pages) and *informational pages* that contain information about the company. The collected data set contains e.g. the timestamp (when the hit was made), page-id (what page was clicked) and the session-id (used to separate different sessions). The data measured the observable behaviour at a group level in order not to infringe on confidentiality aspects of the data.

4 FIELD EXPERIMENTS

The data used in this study spans nine weeks from November 22, 2006 to January 22, 2007. In this time, 8988 sessions were made by 714 different visitors. Thus, 81.7% of the customers from the experimental groups visited the website at least once during the time-period. This constituted over 124000 lines of page-view data (hits). Table 2 depicts the basic data of the experiment. The average age of the visitors was 40 years, (43 in the bank’s whole customer population). Females formed 40.5%

of the visitors, whereas their proportion of the whole population is 48.6 %. We examined the measures of session durations (in pages or in seconds), and they did not differ between the genders.

	Net bank statement	Loans	X-card	Whole experiment	Whole population
Customers selected to groups	281	300	293	874	
Visit-% (number of visitors from groups)	61.2% (172)	94.7% (284)	88.1% (258)	87.1% (714)	
Average age of visitors	46	39	43	42	43
Gender of visitors: females	53.4%	37.3 %	55.6 %	40.5%	48.6%
Total hits	14 584	65 245	44 641	124 470	
Total sessions	1 100	5 040	2 848	8988	
Avg. sessions (in pages)	13.3	12.9	15.7	13.8	
Avg. sessions (in seconds)	370 sec	265 sec	363 sec	309 sec	
Avg. nr. of sessions / unique visitor	6.4	17.7	11.0	12.6	

Table 2 Data summary of the basic data in the experiments

The group that consisted of customers who lacked complementary loans was the most active group when measured with percentage of visits, total hits, total sessions and number of sessions per unique visitor. Since nearly 95% of the loans group visited the online bank during the experimental period, the higher numbers of hits and sessions are understandable. The X-card group opened, on average, the most pages per session, and the duration of their average sessions in seconds was also higher than in the loans group, being almost as high as in the group that had no net bank statement.

4.1 Measures of the personalized banner experiments

According to typical information processing models, consumers go through *attention*, *elaboration* and *choice* phases when exposed to persuasive messages (see e.g. Tam and Ho, 2005). With only click-stream data we have only partial knowledge regarding *attention*, since we do not know how many customers noticed the messages, but decided not to click the banner, or how many just did not see the banner. However, we use the click-through rate of a personalized banner as an indicative measure of *attention*. Moreover, we measured the number of unique sessions that accessed the personalized banner. For the *elaboration* measures, we calculated the overall stickiness (durations of sessions both in pages and in seconds) and page stickiness (the average time spent per page) and compared these figures between the sessions that accessed the personalized banner and those that did not. We also compared the results between the three experimental groups.

The *choice* in this experiment is whether the customer decided to purchase or apply for the promoted product (we use the term product according to the banking terminology, although the offerings are mainly services). We measured choice with the number of the products purchased by the time that the experiment was over (i.e. January 22, 2007), and related this figure also to the total amount of customers in the respective group (pull-% of the group). Regarding the net statement case, it was possible to order the product directly form the website. In the other two groups, the customer had to apply for the product, and physically visit the branch office in order to sign and receive the product.

Finally, we measured the *effectiveness of the personalized messages*. We first measured the proportion of default banner hits (banner of equal size in the same location on the website to a median user) to total hits and compared it to the proportion of personalized banner hits to total hits in order to receive the *lift* of the personalized message. In addition, we compared the *pull-percentages* of the field experiments with comparable personalized direct-mail promotions that had been launched in temporal proximity of the field experiments. Finally, we compared the effect of the personalized banners in the temporal order of the login sessions, that is, the click-stream figures regarding *repeated banner-ad exposure*, which in general is found to be decreasing (see e.g. Chatterjee et al., 2003; Dahlen, 2001).

4.2 Results of the personalized banner experiments

We categorized pages to basic usage (basic transactions) and other pages. The amount of the basic usage pages varied from 81.1% to 84.4% (see Table 3 for the summary of all results reported here), and these were filtered out of the analyses. Among the other than basic-usage pages the proportion of *banner generated pages* varied between 0.74% and 4.13% of the total hits, being the greatest in the net bank statement group. This group had also the highest percentage of *sessions that contained banner-generated pages* (the range was from 0.67 % to 8.36 % of the total hits).

The click-through rates were 0.8% (net bank statement), 0.13% (loans) and 0.2% (X-card) (see Table 3). The click-throughs of unique sessions amounted to 92, 12 and 19. Next, we compared the sessions that accessed the banner-generated product pages to those that did *not* access the banner-generated pages in the experimental groups. The differences between the average durations of sessions measured in pages (and in seconds) were 9.4 (364 s) for the net bank statement, 23.3 (632 s) for the loans, and 2.6 (126 s) for the X-card. That is, in every group the average consumer accessing banners perused more pages and spent more time during the sessions. Regarding the average page stickiness measures (length of a session in seconds divided by its length in pages), the results between those sessions that accessed the banner and those that did not access the banner differed considerably. The differences were 8.5 (net bank statement), 3.2 (loans) and 6.8 seconds (X-card), see Table 3 for more details. The equalities of the variances in all these comparisons were also statistically tested (H_0 : the variances are equal), and Table 3 reports the F-test results. The tests show that in every group, one of the three studied differences is statistically significant, indicating a change in the navigational behaviour of the customers, who accessed a personalized banner compared to those who did not access banners.

Returning to the differences in the duration averages, we notice that the highest page stickiness was found in the net bank statement group. The reason for heightened elaboration might be the possibility to order the service online without consulting the service representative. However, the high stickiness might also be due to imperfect instructions. The products in the other two groups (loans and X-card) required offline visit before they be taken into use. Those customers who opened the loans banner accessed the highest number of pages and their sessions lasted the longest; thus there was a high need for information on the details of the loan offering. The lowest number of pages and the shortest duration were found in the X-card group. The instructions and procedure might have been clear, the customers were already well acquainted with the product, or they might have felt that they can ask the possibly remaining questions from the customer representative in a face-to-face meeting when retrieving the new card.

The pull-percentages of the personalized groups was measured after the experiment was over, and they included the number of customers who had applied or signed the contracts of the respective products. The pull-% was the highest in the X-card group (19 %), then in net bank statement group (12 %) and the lowest in the loans group (6 %). Interestingly, the final purchases are higher than the click-throughs (measured as unique sessions) in both the loans group (18 purchases vs. 12 unique click-through sessions) and in the X-card group (50 vs. 19). This indicates that seeing the messages might act as a reminder and a trigger for action even though the banner is not clicked on (comparable to a brand building effect).

The effectiveness of personalized banner messages was next compared to the effectiveness of a default banner (banner that was situated at the same place on the website and is of equal size). The results show that the lift of a personalized banner compared to the default banner is about 120 in the net bank statement group, 12 for the loans group and 57 for the x-card group. This figure has to be reflected on the current context of banner exposure, which is in general very low (even below 0.1 %), and therefore this lift-measure may look too "optimistic". However, it is still an indication how personalized banners are received by the customers.

When we compared the pull-%'s of the personalized messages to the pull-%'s of comparable direct-mail marketing promotions (that have general pull-% of 9.5 - 10.0 % for the net bank statement, 5%

for consumption loans and about 35% for the X-card), we noticed that the personalized banner messages seemed to be more efficient in product categories like the net bank statement and loans. However, the costs of conducting the promotions should also be incorporated in the analyses when making the comparisons. Due to the exploratory nature of this study, the costs are not included here, and thus the results are only preliminary.

	Net bank statement	Loans	X-card
Basic pages, usage-%	81.9%	83.1%	84.4%
Banner-generated pages (proportion from other than basic pages)	4.13%	0.74%	1.13%
Banner-generated sessions (sessions containing banner-usage)	8.36%	0.24%	0.67%
Attention measures			
Click-through rate (personalized banner hits / total hits)	0.8 %	0.13 %	0.2 %
Click-through amount (nr. of unique sessions that hit the banner)	92	12	19
Elaboration measures			
Avg. duration of sessions (in pages) that accessed banner	21.9	45.2	18.3
Avg. duration of sessions (in pages) that did not access banner	12.5	12.9	15.7
Difference of stickiness regarding session duration in pages	9.4	32.3	2.6
Equality of variance test of the durations (in pages) H ₀ : The variances are equal	p=0.3999 F=1.13	p=0.3944 F=1.58	p=0.1205 F=1.85
Avg. duration of sessions (in seconds) that accessed banner	704	895	489
Avg. duration of sessions (in seconds) that did not access banner	340	263	363
Difference of stickiness regarding session duration in seconds	364	632	126
Equality of variance test of the durations (in seconds) H ₀ : The variances are equal	p<0.001* F=2.44	p=0.7461 F=1.08	p=0.4721 F=1.34
Avg. duration of visit in seconds / page (that accessed banner)	34.0	20.5	27.5
Avg. duration of visit in seconds / page (that did not access banner)	25.5	17.3	20.9
Difference in page stickiness	8.5	3.2	6.8
Equality of variance test of the durations (in seconds / page) H ₀ : The variances are equal	p=0.6252 F=1.06	p=0.0284* F=3.32	p=0.0052* F=2.19
Choice measures			
Purchases by participants (in number of products)	33	18	50
Pull-% of the personalized group (nr. of products / whole sample)	12 %	6 %	19 %
Effectiveness of personalization measures			
Lift compared to default (non-personalized) banner	120	12	57
Direct-mail marketing pull-% of comparable campaigns	9.5 – 10 %	4.5 – 5 %	35 %

Table 3 Data summary of the banner effectiveness data in the experiments

Finally, we compared the effect of the banners in a temporal order of sessions, that is, how many customers clicked the banner on their 1st, 2nd, 3rd etc. login session. We found that the banner effect trend is decreasing with repeat exposures in the net bank statement group (Figure 2) and increasing with repeat exposures in the loans group (Figure 3) and in the X-card group (Figure 4). In the figure legends, the “banner generated pages” refer to the personalized banner, whereas the “overall banner generated pages” depicts an average line had the sessions that accessed the banner been equally distributed in time. As Figure 1 shows, the personalized banner has the biggest effect on the 1st and 7th order of sessions, and the trend is decreasing. In Figure 2, the banner has two peaks during the order of sessions 2 and 7. Figure 3 presents multiple peaks during order of sessions 3, 6, 7 and 9, and the effect of the personalized banner seems to increase the most with repeat exposure. The peaks might be due to some visitors not having noticed the banner the first time they logged in, or because they needed to evaluate the product more carefully over several visits. In some cases the customers may have seen the banner in their first visit(s), but they had to reserve in their goal-directed mind a later session with more available time for elaborating on the message content. However, due to small number of sessions that accessed banners in Figures 2 and 3, the behaviour of even one visitor can impact these trends

strongly, and care should be taken in their interpretation. The figures serve more as illustrations how this phenomenon may be studied with larger samples. We will discuss the findings of the experiments in the next section of the paper.

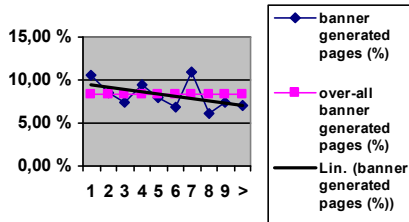


Figure 1 Banner effect with repeat exposure (net bank statement group)

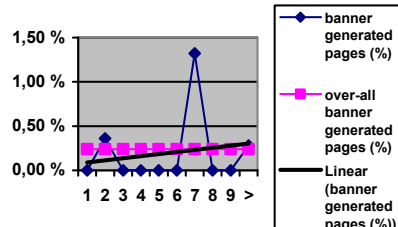


Figure 2 Banner effect with repeat exposure (loans group)

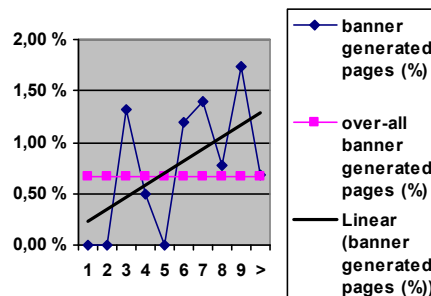


Figure 3 Banner effect with repeat exposure (X-card group)

5 DISCUSSION AND CONCLUSIONS

This paper has explored the effectiveness of personalized marketing messages in a Nordic online bank. Three types of financial products were promoted to three different customer groups, forming a sample of almost 900 customers. The complexity of the promoted products varied from a “risk-free” net bank statement, which could be purchased directly online, to more complex products of loans and credit cards, the purchasing of which could be initiated via the web and finalized offline. This partial execution of the process via the web was not expected to be regarded as a disadvantage by the online customers, as consultation with sales personnel is one strategy customers use to simplify complex decision-making environments (Waite and Harrison, 2002). Customers also tend to seek information from interactive and personal sources when the products are perceived more risky (Mitra, Reiss and Capella, 1999). The Internet can provide unique interactivity in online marketing processes and increase the customers’ feeling of two-way interaction via personalized marketing messages. This might persuade them to initiate the purchase of risky or complex financial products, but they might still be happy to be able to finalize the deal in a face-to-face contact.

There is a fair amount of research that has studied the effectiveness of online banner marketing and also with personalized content. However, most of the studies deal with e-commerce (retailing) sites or with situations where the customers are first persuaded to enter the seller’s site for online purchasing

from a third party site. Our case website is very special: the visitors are already customers of the company, and most of them have a regular need to revisit the site in order to conduct financial transactions or to check the balance of accounts. Furthermore, there is no competition for attention from other parties. Thus, our study contributes to the existing online personalization literature by presenting a case context that has not, as far as we know, been studied before.

Our results showed that the click-through rates for the personalized banners are higher than for the default banner in all three field experiment groups. The lift was the highest in the net bank statement group (120 vs. 12 or 57 in the other groups). This might have been due to the fact that the net bank statement is a relatively simple offering that as a digital service also matches the online bank's distribution channel the best. Regarding the effectiveness of the personalized banners, we found the pull-percentages to be better than direct mail marketing promotions in two of the three cases studied (not in the X-card group, which achieved better pull-% with direct mail marketing). However, these results are to be regarded preliminary, as we did not include all the costs involved in the comparisons.

We also measured the durations of sessions in the online bank both in pages and in seconds. The sessions that included banner-generated pages were either somewhat or significantly longer than those sessions that did not include banner-generated pages, thus implying better stickiness and clear changes in the navigational patterns. However, one could also speculate that longer durations are not always a good thing, since they might indicate e.g. unclear instructions. Especially in a goal-directed mood and with "avoidance" products like financial services typically are (McKechnie et al, 2006), customers might just prefer to get their activities conducted and not to spend too much extra time requiring cognitive efforts on the site. This and other cognitive phenomena are interesting topics for future research. For example the need for cognition (NFC) personality trait (see Tam and Ho, 2005) seems to be a factor that might explain differences between online customer behaviour. According to Tam and Ho (2005), prior research has found that compared to low-NFC people, high-NFC individuals search for more information when making decisions, engage in more effortful processing of persuasive messages, and devote more topic-relevant thought to persuasive communications, among others. Thus, it is not enough to manipulate merely the ELM variables of the messages and assume that the behaviour of the customers is homogenous, but the individual characteristics of the customers should also be studied in more detail.

One limitation of our study is that we did not employ a complementary questionnaire, due to the exploratory nature of this study. A questionnaire would have provided some answers to our presumptions and better metrics e.g. for the attention variable of the information processing stages. In laboratory experiments, eye-tracking devices could also be used to measure attention (see e.g. Drèze and Hussherr, 2003). However, although we employed mainly direct response measures, our measures on choice (actual behaviour) imply that the marketing messages worked also through memory (with repeated exposure), and not only when clicking through the banner. This was manifested in the field experiment by the larger numbers of final purchases of the promoted products when compared to the sessions that had accessed the respective banners in the loans and X-card cases requiring offline visit.

Another caveat in our experiment is that the Christmas and vacation time might have inflated the results both via the needs of the customers (e.g. credit card and loan applications near Christmas) and via more free-time to study the bank's messages. However, the timing of the experiments was planned on purpose. Just as with traditional promotions, the marketers have started to design also their online campaigns through temporal targeting according to time of year, or even by the day of week or time of day (Bruner and Gluck, 2006).

In summary, the field experiment provided many insights both for the bank's future operations and for the researchers regarding personalized online marketing. After this basic analysis of the effectiveness of personalized messages, more details of the rich click-stream data will be disseminated in future studies. For example, combining the click-stream behaviour with demographic profiles could give more insights on the causes that affect the behaviour and influence the navigational patterns. Additionally, clustering analysis would be helpful in understanding and predicting which measures of

navigation are most important in explaining the purposes of navigation, thus reflecting the mind-set of unique sessions (cf. Moe, 2003).

The bank has continued its experiments with personalized messages with positive results. After the pilot stage, it aims at designing and implementing a more systematic way of conducting personalized marketing in the online bank. This will require streamlined processes and increased use of personalization technologies, thus providing fruitful avenues for further research on the topic.

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