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Factors influencing insurance customers' channel preferences in a multichannel environment - An empirical study in a Finnish insurance company

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This study looks into the formation of customer interaction channel preferences in a multichannel environment in the context of Finnish consumer insurance business. The primary goal of the research is to discover and examine the factors that guide consumer channel preferences based on customer characteristics. The study also strives to explore the relative effects these factors have on channels preferences and based on the found factors identify differences among customer groups. This is done by reviewing past research, viewing the underlying constructs within customer needs from a multidimensional perspective and employing multivariate analysis methods to explore the empirical data.

The empirical part of this thesis consists of a survey sent to a sample of customers representing a Finnish insurance company. The questions in the survey were compiled from previous studies or developed specifically to support the study at hand.

Factor analysis is performed on the variables obtained from the questionnaire in order to discover underlying value patterns in customers that influence their channel preference, in other words, to find out which factors play an important role in insurance customer channel preferences. These factors are further examined through regression analysis, which is used to explain each factor's effect on channel preferences, or the relative effect the factor has on a channel preference variable.

Cluster analysis is later performed to group customers together based on their channel preference characteristics. The cluster analysis plays an important role in transforming the results into managerial implications.

The principal component analysis revealed six dimensions that affect channel preference; 1) Locality & personal relations, 2) Trust in Internet, 3) Experience of branch office, 4) Experience of call center, 5) Convenience and 6) Self-reliance & privacy. From the dimensions discovered in factor analysis a regression analysis was conducted in order to compare the relative effects among these factors. The results enabled the compilation of a revised framework for channel preference formation in the context of consumer insurance services. The cluster analysis produced and described four distinctive and statistically significant customer groups, which can be used in segmentation of customers based on their channel preference. This can be useful when deciding on different channel strategies within the company.

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1 Introduction

Emerging new technologies have over the past couple of decades provided new service and sales channel possibilities for both companies and their customers. Companies are always providing customers with new ways to purchase and use their products and services and the customers are adopting these channels at varying success. Financial services have been at the forefront of this development, especially in getting the customers to adopt Internet as a way of delivering the services (79 % of Finns used Internet bank in 2011) (Statistics Finland 2011). Otherwise as well, the emphasis has shifted, from “face-to-face” selling to direct marketing of financial services and products via phone, mail or Internet (Lee 2002).

Before the millennium, when the Internet was still relatively new as a distribution channel of financial services, many argued that the traditional brick-and-mortar bank and insurance branch offices were doomed to be replaced by online services (Tilden 1997). Still, we as consumers seem to have some need for these branches today.

Banking services in Finland have traditionally been well integrated in the electronic environment with online services and Customer relationship management (Maenad et. al 2008) and insurance services follow not far behind. The changes in the information technology and customer communication environment have led to the need for simultaneous use of multiple channels (Black et al. 2002). The various channel advantages presented by different channels have made the companies abandon their reliance on only one channel and seek value from multichannel strategies that favor complementarity and the creation of between-channel synergies (Albesa 2007). Implementing these strategies however require understanding of the motives that drive customers to choose or prefer one channel over another (Black et. al 2002). In order to design a functioning multichannel service, managers must figure out what are the most important factors that guide the customers’ channel decision making, when needing to interact with their insurance company.

The majority of the research on distribution channels has focused on the adoption of new channels as an alternative to existing ones, most of it on the adoption and utilization of electronic banking channels (Hoehle et. al 2012). The academic research on channel preferences in financial industry is very scarce and in insurance business even lesser.

1.1 Research problem, goals and scope

This research aims to investigate these questions of channel preferences from the viewpoint of customers in a Finnish insurance company. The goal of this research is to shed some light into how these channel preferences are formed and what are the prime dimensions that guide customer channel preferences. It also strives to find out how and to what extent these different factors affect the channel preference and in what way. Another dimension to be investigated is can these channel preference characteristics be used to group customers in order to assist managerial decision making regarding channel strategies and channel segmentation.

The main research question is:

What factors influence consumer insurance customers' channel preferences in a multichannel environment?

The sub questions of this question are:

To what extent do the factors influence customer channel preferences?

What dimensions of channel preference do different customer groups perceive as important?

The research focuses on consumer insurance customers and their channel preferences in different service situations. The empirical part of the thesis deals with interaction situations where the customer contacts the company. The timeliness of this research is based on the changing service landscape in the insurance field as more and more insurance and other

financial companies develop online services to better answer customer demands and on the other hand try to lower their own customer service expenses.

1.2 Key concepts

Channel preference

Preference as a research area is well developed in marketing and other social sciences (Muthitacharoen et al., 2006). In this study I have adopted a traditional definition of preference as “the setting by an individual of one thing before or above another thing because of a notion of betterness” (Brown, 1984)

This thesis is about consumers’ channel preferences. And by channel preference I refer to the broader definition of channel than only distribution channel or marketing channel for example. By the word channel, I mean all the touch points a customer might have with his/her financial service provider through which the company can deliver its products and services to the customer and the customer can interact with the company (Jarvinen 2003). In the research, though, I have limited the questions to only concern the channels which the company itself has control of, such as the telephone channel, branch office channel and the company’s own web page. I have excluded social media channels such as Facebook and Twitter and discussion forums to mention a few important ones, although it is acknowledged that they are increasingly used as service channels along with being used as PR and marketing channels.

It is important to differentiate channel preference from channel choice. The preferred channel is the one the customer would use given the choice in an ideal setting and channel choice refers to the choice customer makes within the set of available channels to him/her (Järvinen 2003). The main focus in this thesis is on the channel preference although we also touch the subject of channel choice.

Multi-channel strategy

The traditional definition of multi-channel strategy or multiple channel strategy usually refers to using more than one channel in distributing products/services to customers. (Coelho & Easingwood 2003, Rosenbloom 2007). It has also been used to refer to strategies where companies use more than one channel in their marketing efforts (marketing-mix). (Duffy 2004).

In this study I have adopted a definition of multi-channel strategy that acknowledges that the interaction between the customer and company does not necessarily have to contain transaction of money or products to be included. It simply means using multiple channels in *interacting* with customers and it stems more from a customer relationship management point of view.

Financial services

Financial services include a vast list of services, the most traditional of them being banking, savings and investment, insurance and debt and equity financing (Kramer et. al, 2007). This thesis focuses on consumer insurance, which shares the characteristics of financial services that separate them from other “traditional” services and product businesses; high intangibility, information asymmetries between consumers and their service providers and a heavy reliance on the credence qualities of products and services that can lead to uncertainty. The complexity of products and services and the long time range of commitment add to the uncertainty experienced by customers when faced with a purchase decision. (Sunikka & Peura-Kapanen, 2010)

1.3 Methodology

The empirical part of this thesis consists of a survey sent to a sample of customers representing a Finnish insurance company. The questions in the survey were compiled from previous studies or developed specifically to support the study at hand.

Factor analysis is performed on the variables obtained from the questionnaire in order to discover underlying value patterns in customers that influence their channel preference, in other words, to find out which factors play an important role in insurance customer channel preferences. These factors are further examined through regression analysis, which is used to explain each factor's effect on channel preferences, or the relative effect the factor has on a channel preference variable.

Cluster analysis is later performed to group customers together based on their channel preference characteristics. The cluster analysis plays an important role in transforming the results into managerial implications.

1.4 Structure and central references

The research consists of five chapters. The first one introduces the background, presents the research questions and narrows the context of the following research. It also explains the key concepts used and goes through the central references that were vital for the research in the development of the theoretical background and in building up the empirical research. The research continues with a literature review in chapter 2, which presents an overview of the context of multichannel environment by introducing what multichannel strategy encompasses. The subject is also viewed from the standpoint of CRM integration and its

importance to the successful implementation of the strategy and then narrowed down to address multichannel strategy in financial industry. Characteristics of financial services, how they differ from traditional services and how this affects the business are gone through next. It is followed by a description of the general channel structure in insurance business and an introduction to channel characteristics. Channel preferences and what influences them are first examined on a more general level after which the focus shifts towards previous academic literature and theories on factors influencing channel preferences in areas relatable to insurance services. Finally, the theoretical framework for customer channel preferences is introduced and argued based on the theories research gone through in previous chapters.

Chapter 3 goes through how the empirical research was conducted and introduces and explains the methods of analysis used. Chapter 4 presents the empirical results of factor, regression, and cluster analysis conducted to discover the underlying patterns that influence channel preferences in consumer insurance business and displays the effect magnitudes and orientations. It also displays and discusses the different customer profiles or groups obtained from the cluster analysis. In chapter 5, the framework is revised based on the empirical results and the outcomes are discussed. Finally, the findings of the study are summarized, drawing implications for both managers and suggested future research.

A strong basis for this research is Albia's (2007) research on interaction channel choice in a multichannel environment, where he explores the factors that influence consumer banking customers' channel motives. The format of the questionnaire is modified from his study to fit the context of consumer customers of a Finnish insurance company. The context of multichannel strategy as a viewpoint for the whole channel preference research is based upon Payne and Frow's (2004, 2005 and 2009) studies on the role of multichannel integration and customer relationship management.

The channel preference literature was dominated by research focusing on new channel adoption in banking and for this research the theories were gathered from mainly that area. The most important contributors in this were Black et. al's (2002) study on consumer

choice of distribution channels in financial services and Coelho and Easingwood's (2004) multiple channel structure framework in financial services. Trust and the formation of it was considered an important subject in channel preference formation and it was mainly examined from the viewpoints of McKnight et. al (2002), Gefen (2000 and 2003) and Gefen and Straub (2004) and Chen and Dhillon (2003). Insights for the channel preferences in Finnish financial industry were mainly provided by Sunikka and Peura-Kapanen (2010) and Järvinen (2003).

2 Theoretical background

2.1 Multichannel strategy

The development of new interaction and communication technology has allowed companies to create new ways of reaching their customers. The new interaction channels have enhanced the options available to businesses for building and enhancing customer relationships through communication activities, customer distribution, customer satisfaction control, post and pre- sale service and so on (Albesa 2007). Using multiple channels in distribution of goods and services or interacting with customers is probably the most common strategy nowadays (Coelho & Easingwood, 2003) and focusing only on a single channel is becoming more of an exception. Rising customer needs and expectations force companies to create and use channels that customers are accustomed to in other aspects of life, and the companies must provide them if they want to stay in the competition.

Offering products and services through various channels will become more common due to the pressure of having online presence. Many businesses are forced to abandon their monochannel strategies to make way for multiple channel strategy in which the operations in different channels are tied to one another. (Albesa, 2007). The consumers are increasingly shopping across a variety of channels and communication media. For example, a consumer might use the Internet to obtain product information and browse for options, visit a retail store to try out a product or get more advice and finally order the product by

phone. (Dholakia et al., 2010). So, the multichannel strategy favors complementarity and the development of between-channel synergies. Before developing multichannel strategies, companies must understand how these customers utilize the multiple media and channels available to them. Companies must investigate how the customers manage the complementarities and conflicts of the channels and come to rely on a particular channel or media. They must also understand the criteria used to choose between the available channels and the circumstances under which one channel might be preferred over the others. (Black et al. 2002 and Dholakia et al. 2010).

With a multichannel strategy, customers can interact with the company in alternative ways and the company can approach the customer also through different channels. Nevertheless, multichannel marketing strategy should not be confused with traditional marketing of multiple channels, in which a company interacts with customers in different segments using different channels. The conceptual difference from the classical marketing of multiple channels, according to Albesa (2007), is in the customer's freedom of channel selection and the lack of obligation to use channels previously designed to reach a determined segment. In multichannel marketing, the customers can use whatever channel they prefer at the time and have the option to migrate from channel to another at their discretion. By definition, an integrated multichannel strategy involves utilizing and integrating the full range of commercially viable channels to serve customers without dictating which channel the customer can use (Payne & Frow 2004).

The coordination of channels is essential in multichannel strategy (Albesa 2007). The channels have different attributes, pros and cons, if you will, that make the management of them highly important. It is considered, for example, that the Internet channel is by far the most cost efficient, but what it lacks, is the ability to deliver social presence and human interaction, which in many cases can translate into customer loyalty (Ansari et al. 2008). By allocating the optimal amount of resources through a combination of channels to satisfy customers, businesses can gain the best value out of their channel strategy. This is why it is crucial not only to be able to identify the different characteristics of all channels available,

but to understand what drives customer preferences and choices in multichannel environment.

2.1.1 Multichannel integration and CRM

Customer relationship management (CRM) was the buzzword of the late 1990s and beginning of 2000s among marketing academics (Paas & Kuijlen, 2001). The roots of customer relationship management are in the relationship marketing literature, which originates from the 1980s (Berry, 1983). In his academic literature review and classification of customer relationship management research, Ngai (2005) acknowledges the rapid surface of academic CRM literature and the business interest that followed in the turn of the millennium. He notes that despite the growing interest and recognition as an important business approach, there is still debate about the universally accepted definition of CRM. The definition seems to differ depending on the research approach and field. In this thesis, I have adopted Frow and Payne's 2009 definition of CRM as an inseparable part of relationship marketing; *"CRM is a cross-functional strategic approach concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments. It typically involves identifying appropriate business and customer strategies, the acquisition and diffusion of customer knowledge, deciding appropriate segment granularity, managing the co-creation of customer value, developing integrated channel strategies and the intelligent use of data and technology solutions to create superior customer experiences."* This definition contains both the information technology and the relationship marketing point of views (Ngai, 2005). It also addresses the importance of customer co-creation of value and customer experience management (CEM).

CRM emphasizes two-way communication with customers to build customer value over time. Advances in technology, especially the Internet, have increased the amount of this two-way dialogue and helped gather and interpret more data about these communications and customers. CRM is highly important in creating multichannel strategies, because it provides companies improved opportunities by using data to understand customers and to implement improved relationship marketing strategies. (Payne & Frow, 2004)

As stated previously, consumers may move from channel to another at different stages of a purchase process. Customers want to use different media in the process and value the possibility of Internet use to e.g. compare prices, or other information and appreciate having the option of buying online or at a local outlet or have the item delivered (Nicholson et al. 2002). When the service, sales and distribution channels are well integrated, many process paths are possible (Steinfeld et al. 2002). Multichannel strategy encourages customers to this multichannel purchase behavior and involves utilizing the full range of commercially viable channels to serve customers and integrating them without attempting to influence the channel selection. CRM's role in this is that the business should seek to capture all customer information across the channels and integrate it with a single data repository in order to be able to recognize previous interaction chains with the customer, regardless of the channel previously used, and use it to enhance the customer experience throughout the customer relationship. (Payne & Frow 2004)

Companies can't only rely on product attributes when seeking competitive advantage in competition rich markets. In today's business, the competitive advantage may increasingly come from offering customers individualized relationships in whatever channel the customer chooses to use, whenever it is economically feasible (Peppers et al. 1999). The company must pursue ongoing relationships with its profitable customers to ensure customer retention and profitability. The value of the relationship to the customers comes in the form of reassurance, that the company will continue to provide them with products or services tailored to their particular needs. By offering superior customer value continually and consistently in every channel the company increases the customers' psychological cost of switching to a competitor. The provision of a seamless and consistent customer

experience in every customer touch point will generate trust and loyalty towards the service provider, and the collective experiences will develop into an emotional reserve of goodwill, which in turn will reinforce the relationship and possibly propel it towards a higher levels of profitability. (Payne & Frow 2004 and 2005, Wallace et al. 2004).

2.1.2 Multichannel strategy in financial industry

The roots of service marketing are in the 1970's, when most of the service companies were small local businesses. Back then the focus was on the individuality of service, as the services were produced face-to-face and human interaction was in the center of the service situation. (Järvinen 2003). This applied also in the financial industry, as the banks were in many cases small local banks, as were the insurance businesses and many of them were cooperative ones.

Now it is generally thought that multi-channel strategy has become the most common business model in the bank industry, while the customer structure has become diversified, with most of the clients using multi-channel procedures when interacting with their service provider or performing financial errands (Bruce Ho & Dash Wu, 2009 and Guraau, 2003).

This thesis focuses on channel preferences more specifically in the context of insurance services, but as the research in this area is very scarce, most of the academic references come from the area of banking or financial services in general. Insurance services share on most parts the characteristics of other financial services and are in many cases closely tied to banking services, so it is assumed that generalizations can be made regarding the theoretical concepts and background. The following parts describe the characteristics of financial services and their channel structures and how the multichannel strategy fits in all this.

2.2 Characteristics of financial services

A functioning financial infrastructure is the corner stone of economic growth. The most important function of the financial system is to allocate funds from surplus economic entities to deficient entities. This process is carried out through various financial services. Financial markets also enable risk diversification between corporations, investors and customers. (Bank of Finland 2002).

Financial services include a large spectrum of institutions. Cheverton et al. (2004, 3-4) list the most important institutions as follows:

- Retail, corporate, investment and private banks
- Mutual funds
- Private and group pension funds
- Life and indemnity insurance entities
- Credit lenders
- Specific lenders
- Stock/securities market
- Government savings institutions
- Various financial service distributors

From the consumer point of view, financial sector has traditionally been divided into banking and insurance services. Banks have offered different savings and investment services and loans, while insurance companies have focused on granting insurances. This kind of classifications is, however, outdated as many of the service providers of today offer products and services from both sectors. (Cheverton et al. 2004, 3-5). Most of the financial service providers in Finland have expanded their services to include banking and insurance. The banking crisis of the 1990s and the abatement of regulation have brought banking and financial sectors closer together and contributed in the centralization of financial services in Finland (Bank of Finland, 2002). The most prominent financial institutions in Finland

based on their assets are; deposit banks, insurance companies, mortgage companies, financing companies and special lenders (Federation of Finnish Financial Services 2012).

The financial industry has gone through rapid growth during the past 20 years; the industry has internationalized and it has seen new entrants. The rapid growth of e-commerce has had a large role in the development of financial services in Finland and provided both challenges and opportunities. (Sunikka et. al 2010).

As the term financial services suggest, what they essentially are is services. Therefore it is important to cover the features that make services different from products. It is a common notion, that there are differences between the attributes of products and services and in their selling and marketing that produce both challenges and opportunities (Parasuraman et al. 1985). The most employed characterization (Virgo & Lusch, 2004) of the idiosyncrasies of services compared to products is based on the service literature review by Parasuraman, Zeithaml and Berry (1985). They divide the differences into four characteristics:

- Intangibility
- Heterogeneity
- Concurrency of production and consumption
- Perishability

Intangibility refers to the fact that services are functions performed rather than physical objects such as products. Service can't be seen, felt or touched as products can be, which leads to services being sold in different manner than products. The presentation or communication of service attributes as well as defining costs or quality can turn out to be much more difficult, which also makes the pricing of services more challenging (Kangis & Passa 1997). *Heterogeneity* means that all the services are different due to being performed by people. *Concurrency of production and consumption* refers to services' feature of always being consumed or used at the same time they are being produced or performed. The customer is in many cases present as the service is being performed or even participates in the "production process". This is the reason why mass production of at least

traditional services is difficult or near impossible. *Perishability* of service means, in all simplicity, that services can't be stored, sold forward or returned after use.

The concept of service gets more complicated, when examining *productization* of services or *servitization* of products. A service can be sold as a part of a product, or as added service (e.g. installment or maintenance). Some services are “packaged” to appear as products, so that the selling and marketing of them would be easier. (Wilson et. al 2012, 4-5). In financial services it is common to sell various insurances as insurance products or as packaged insurance products that consist of multiple insurance products or investment services as investment products.

Financial services share many of the aforementioned characteristics of “common” services, which already make the selling and marketing of financial services challenging. Financial services are also intangible and denounced by heterogeneity when the decision of either the customer or customer service agent affect the service purchased e.g. an insurance or investment solution. Perishability and the concurrency of production and consumption also apply to financial services whenever the service concerns a customer service situation (Cowell, 1993). In addition to the common characteristics usually incorporated with services, financial services have their own specific characteristics that differentiate them from other services (Järvinen 2003). It is also very difficult to describe financial services as a whole and to incorporate inclusive generalizations about the features or characteristics that they would all share, as they differ considerably with each other (Lee 2002).

The services in financial industry are often very complex and to understand and to compare them is time consuming and at the least very challenging to consumers (Bell & Eisingerich 2007). Some of the services in the industry are mandatory. For instance, traffic insurance is statutory when operating a vehicle on public roads (Cowell 1993). Another feature is that some of the services (life and pension insurances, long term funds and mortgages for example) require a long time commitment both from the customer and the service provider. Some include a high risk for both parties (e.g. monetary losses as investments decrease in value or as the solvency of borrower drops). On the other hand, financial services are used

to reduce risk, which is perhaps the most descriptive feature of insurances, but also for example hedge funds. (Cowell 1993). Risk is a conjunctive feature in financial services. That, combined with complexity, difficulties in comparativeness and long time commitment, gives trust a pivotal role in financial services (Lee 2002, Roman 2003 and Sunikka et al. 2010).

Customer knowledge is vital regardless of industry, but in financial business, where so much is based on functioning information intermediation, knowing your customer is a key concern (Dewan 2001). Financial industry has noted early, that building long customer relationships is worthwhile from customer retention point of view as well as from the stand point of cost reduction and raising revenue, hence the long history and importance of customer relationship management in financial service businesses. (Harrison 2003).

Insurance services

As stated earlier insurance services share most of the characteristics of financial services. There are a few features though, that make them different in the eyes of the customer and the marketer and that must be taken into consideration. To the customer, an insurance policy is an abstract concept – perhaps even more abstract than banking and investment services. In essence it is a promise to compensation if a certain contingency takes place. Until such occurrence, the insurance policy remains just a piece of paper (Majaro 1984).

Järvinen (2003) defines insurance as follows; “Insurance is a service, with terms and coverage predetermined in insurance contract and which is based on a long term customer relationship with the insuring company or a representative of the company”. Risk reduction can be seen as the reason for acquiring insurance and it usually stems from the basic need of feeling secure and obtaining a peace of mind (Peura-Kapanen et al. 2007). So the consumer does not necessarily feel the need to acquire a specific insurance product, but instead the insurance is a way to fulfill the need to feel secure. The abstract nature of

insurance and how it affects customers must be kept in mind when investigating customer behavior in channel preferences in the field.

2.3 Channel structure and characteristics in insurance services

The channel options in financial services (including insurance services) fall into six main channel categories (Payne & Frow 2004):

- Sales force
- Outlets
- Telephony
- Direct marketing
- E-commerce
- M-commerce

The sales force includes field account management, service and personal representation, outlets include brick-and-mortar retail branches with service personnel. Also kiosks and other third party outlets have been used to sell insurance. (Payne & Frow 2004). Telephony consists of service provider's call centers or telephone service at the branch office. Direct marketing focuses on selling and marketing via mail, TV, radio etc. E-commerce includes all service and sales activities performed online. Customers can send e-mail (or web messages) to service agents at the contact center or log on to the service provider's web page and conduct their own insurance errands. (Järvinen 2003, Payne and Frow 2004). Chat services on service provider's web page are becoming more common and traditional call centers have become contact centers, where service is provided through various channels. M-commerce includes traditional mobile telephony and SMS but also mobile Internet operations. Many of the service providers have applications through which the customers can perform various operations on their smart phones. (Lee et. al, 2007).

Järvinen (2001) has categorized insurance channel options according to three criteria: ownership of the channel, similarity of the channel and overlapping of the channel. By the ownership criteria the channels can be divided into service provider's own channels, channels independent of the service provider and channels co-owned by multiple service providers and intermediaries.

Channels categorized by similarity can be divided into uniformed channels, that all have the same service assortment or differentiated channels that have their own operating areas or customer segments that they offer their services to. The channels that are similar are either totally or partially overlapping or complementary. Overlapping channels offer the same services to same segments and geographical areas and compete with one another that way or offer same products but in partially different geographic areas, which creates partial overlapping. Complementary channels sell products or services that complement their core offering. For example travel agencies might offer travel insurances and car dealerships motor insurance. (Järvinen 2003).

This research focuses on customers' preferences in service channel selection and for practical reasons the range of channels had to be limited to consist of service or insurance errands in outlets (more specifically branch offices), telephony, e-commerce and m-commerce. Also service on social networks, mainly Facebook had to be left out, as it is from the company's point of view more of a PR or marketing channel rather than customer service channel. Some form of customer service takes place in Facebook also but the number of customers using it as a service channel is very limited.

2.4 Channel preferences and selection

Financial services have led the way in adopting multichannel strategies and the choice and mix of channels has a lengthy history in the literature of marketing financial services (Black et. al 2002). A vast majority of the research on distribution channels has focused on the

adoption of new channels as an alternative to existing ones, most of it on the adoption and utilization of electronic banking channels. The new technology adoption literature in the financial sector followed the introduction of ATMs to the public in the 1970s and there has been a steady increase in the research dedicated to electronic channel adoption since circa 1984. In the end of the 1990s the emphasis shifted towards the adoption of the Internet channel and lately there have been studies regarding mobile technologies such as mobile phones, PDAs and smart phone applications. (Hoehle et al. 2012).

Hoehle et al (2012) have studied the academic literature history of the consumer adoption and utilization of electronic banking in the past three decades and classified the most prominent theoretical constructs through which the subject has been explained. In qualitative research for example, O'Reilly et al. (2001) have studied banks' Internet channel strategies through multiple case-study design. They interviewed several senior bank managers to discuss the approaches banks pursue to move customers towards Internet banking channels. Black et al. (2002) conducted several focus group discussions with UK bank customers in order to investigate consumer choice behavior related to financial distribution channels. The authors argued that channel choice is influenced by consumers' attitudes, channel characteristics, and organizational characteristics, and that consumers would highly value both product–channel interactions and consumer–channel interactions.

Consumer trust has also been found a particularly influential factor in consumer adoption of a new channel (Howcroft et al., 2003) in focus group discussions. In quantitative research for instance Wan et al. (2005) studied the factors influencing customers' perceptions on bank branches, ATMs, telephone and online banking and found, through confirmatory factor analysis, four major factors; convenience, informativeness, user friendliness and assurance.

The most frequent theoretical view used to examine e-banking adoption during the past three decades has been technology acceptance model (or TAM) (Hoehle et al, 2012). It aims to predict how users will accept and use the technology provided and it suggests that perceived ease of use and usefulness are the most important factors in adopting new

technologies (Davis et al., 1989). For the non-adopters the most important prohibiter of accepting electronic channels has been the preference of dealing with people (Zeithaml & Gilly 1987).

A much smaller fraction of the literature deals with channel selection or preference in multichannel environment, and when they do it is usually to investigate the buying behavior of consumers in multiple channels (Jasper 1994, Eastlick and Liu 1997, Gehrt and Yale 1996, Nicholson et al. 2002 and Burke 2002).

A good portion of the literature focuses on the dimensions of trust and its effects on web vendor acceptance (Gefen & Straub 2004) and due to its great importance it is suitable to cover the formation of trust towards the online channel here. According to the traditional view of trust it is formed between people in a social context, where long time interaction between people has enabled the counterparts to build reliable expectations of each other's behavior. Trust is not static, but it evolves over time. (Chen & Dhillon 2003). In a traditional business this is easy to understand; in a transactional situation a relationship is formed between the company and the customer, which manifests itself through the interaction of the customer and the employee serving him/her (Gefen & Straub 2004). In a multichannel environment, where the degree of personal contact varies between channels, the formation of trust is no longer that simple. In online business, for example, where there is little or non social interaction, the rules of traditional formation of trust do not necessarily apply.

Recent marketing and information technology literature has focused on describing the formation of trust through three constructs; 1) *competence*, as the ability to do what is promised. Competence consists also of the know-how in producing products or performing services. 2) *Benevolence*, ergo the willingness of both parties of the relationships to act in a way that benefits both and 3) *Integrity* as the sincerity, credibility and reliability in actions and promises made by the parties. (Siau & Shen 2003).

McKnight et. al (2002) propose a model of the formation of trust towards a web vendor. The model assumes, that the personality or character of a person and his life experiences

affect his ability to trust (disposition to trust). Here trust is seen as the common faith in humanity and it stems from the idea that we, as people, are altruistic in nature, which means that we want good for other people gratuitously and unselfishly and believe others think alike (Hamilton 1963, 354). The trust in others is formed through aforementioned competence, benevolence and integrity and it is assumed that the disposition to trust is also formed likewise, but in a larger context. McKnight et. al (2002) also introduce the concept of trusting stance as an economic variable of choice, which describes an individual's strategy or approach, when dealing with others. The trusting stance can vary depending on whether the disposition to trust is high or low. Consumers with high disposition of trust are more easily convinced to trust the web vendor for instance through clues like pictures of certificates but people with low disposition to trust may experience all efforts to gain trust as suspicious.

Gefen (2000, 2003) has stated, that the consumer's common ability to trust directly affects the trust towards the seller. In McKnight et. al's (2003) model it also affects institution-based trust or the general belief, that the constructs needed to achieve the desired outcome are present. These structures consist of for example laws and the protection provided through adequate technological applications. It also contains the feeling that the online environment in question is suitable for purchasing and that everything in the virtual surroundings support confidential and trustworthy transactions. Important factor in the formation of trust are the accumulated experiences of other actors in the online environment. Positive experiences reinforce the consumer's belief in the whole institution. (Flavián et. al 2006).

The disposition to trust and the institution-based trust affect consumer's trusting beliefs about a certain service provider's trustworthiness. The trusting beliefs are again formed through the three constructs; the beliefs about the service providers competence, benevolence and integrity. The order of importance in these constructs is situation-based and largely dependent on the field in which these service providers operate in. (McKnight et. al 2002). In addition to these factors that affect the formation of trust in larger scale, there are more concrete factors that do their part in this also. The experienced quality of the

site for example can be seen as a large indicator about the service provider's trustworthiness. Everything the consumer sees and experiences affect directly to his beliefs about the service providers integrity, benevolence and competence. (Jarvenpaa et. al 2000). When there is a lack of social presence in the online environment, the company itself becomes the object of trust. Consequently the image the company provides on its website becomes a significant affecter to the formation of trust towards it (Corbitt et al. 2003).

The positive beliefs about the trustworthiness of the service provider and its site can eventually lead to the desired outcome which usually is the purchase decision or for example the willingness to give out personal information to the site. In McKnight et al's (2003) model this is called the trusting intentions. The adoption of the desired behavior is dependent on whether the consumer is prepared to trust the site and the service provider.

The usability of the site also plays a vital role in the formation of trust. With better usability comes better understanding of the site, the products and services and what they contain and the possibility of errors diminishes (Muir & Moray, 1996). The ease of use also affects the customer's self-confidence. When the customer is aware of what is expected of him in each step of the process and what follows after the next, the self-confidence as a user of web service increases. This confidence combined with the sense of familiarity created by the image of the company adds to the trust the consumer has towards this technology (Kantowitz & Hankowski, 1997)

The reason why trust is seen so important in this context is that it is a common factor in forming channel preferences and also a vital factor in influencing customer relationships but it has an especially large role in financial services due to their special characteristics of high risk, long time commitment, intangibility and high complexity etc. (Roman 2003, Lee 2002, Sunikka et al. 2010).

2.5 Factors influencing channel preferences in insurance business

As said earlier, most of the literature on channel preferences in financial industry deals with new channel adoption. Research on factors influencing channel preferences or selection are scarce and in insurance industry virtually non-existent. Consequently the research that this thesis is based on is mostly from other fields of financial industry, mainly retail banking. As an example of this, Black et al. (2003) have studied more generally the influences on choice of channel in financial services as a basis on which a more general conceptualization of channel choice could evolve. The researchers used a qualitative approach in their effort to explain the phenomena and came to the conclusion of four groups of factors that influence the channel choice. The first group was formed by the characteristics of the consumer and contained product category involvement (describing ownership of financial products and telecommunication device), consumer confidence, socio-economic characteristics, lifestyle and ethical stance. The second group consisted of product attributes such as the level of complexity, perceived risk and price. Third group included variables related to the channels such as the level of personal contact, perceived risk and cost of the channel and convenience. The fourth group considered organizational variables for instance company image, size, longevity and the range of channel provision.

Albas (2007) used this classification system introduced by Black et al. (2002) and developed it further in his quantitative study that examined how two types of variables influence customer behavior in selecting the preferred interaction channel; individual variables (desire for privacy and social relations) and channel variables (knowledge and convenience). Through confirmatory factor analysis he came to the conclusion that a greater social orientation (desire for social relationship, when attending banking errands) increases the use of personal channels. Here it is also assumed that the desire to deal with a person rather than technology influences the channel preference in insurance business as well, guiding customers to favor the personal channels (also Zeithaml & Gilly 1987). The desire for privacy concerning personal data in banking situations was tested and confirmed

important in guiding consumer behavior. This leads to the suggestion that privacy might be important in insurance issues as well.

In channel variables, Albesa (2007) confirms the hypothesis that the knowledge of how a particular channel works increases the likelihood of its use. The importance of knowledge of the particular channel or technology in accepting it over other channels is also viewed very important in articles examining consumer behavior through technology acceptance (e.g. Pikkarainen et al., 2004, Lai & Li, 2005). Also, as suggested earlier, the user friendliness of a channel, especially the online channel facilitates channel choice (Davis et al., 1989 and Liao et al. 1999).

Channel convenience is another factor, which influence on channel behavior is supported by the research of Albesa (2007). According to the study the perceived convenience of a channel increases the likelihood of its use (see also Wan et al. 2005, Pikkarainen et al. 2004 and Liao et al. 1999).

In addition to knowledge and perceived convenience, the trust factor was also considered in this thesis. Trust in Internet was seen as a factor that would facilitate the use of online channel (McKnight et al. 2002 and Pikkarainen et al. 2004). Also the trust the customer has towards the service provider was seen as a potential factor for influencing channel behavior (Howcroft et al., 2003). On the other hand, Hahn and Kim (2009) suggest that the trust a consumer has towards his bank can be both an adoption-enhancing factor and an adoption-inhibiting one. This point of view has also been included in the research part of this thesis.

An important factor that was not present in Albesa's (2007) study is the perceived experiences of different channels. It is suggested that positive experiences in one channel increase the likelihood of its use. It is also assumed that offline channel satisfaction reduces the perceived usefulness of and enhances the perceived risk of the online channel (Hahn & Kim, 2009).

As suggested earlier, high levels of consumer confidence with a particular channel will tend to increase the likelihood of the use of said channel (Black et al. 2002). It is also proposed

that the more the customer has confidence in his own skills and knowledge in running financial errands (here especially insurance errands), the more likely he is to use self-service channels, as the need for personal reassurance diminishes (Sunikka et al. 2010).

In addition to factors mentioned above, there was need to examine how particular emotional aspects such as locality and local identity affect the channel preferences in insurance interactions. These needs arose from the discussions with the managers in the insurance company studied and the company's strategy to have a strong local presence.

Finnish financial institutions have strong history of locality as many of the first banks operated in cooperative form. Also the early insurance companies were based on this idea of local insuring. Locality in this context can be seen as an interaction network brought together by cultural and physical proximity. Locality is based on shared culture and history and concrete interaction between people made possible by geographical proximity (Soine-Rajanummi & Saastamoinen 2002, 128). Communities have often been understood in terms of geographically specifiable entities linked to particular places (Dalby & Mackenzie, 1997). Local identity can here be seen as strong feeling of belonging to that geographically defined community such as feeling strongly about being a part of a city, a town or village, or maybe regarding supporting local businesses important. In this thesis it is suggested in the theoretical framework, that this strong local identity increases the likelihood of using personal channels.

2.6 Theoretical framework for channel preference

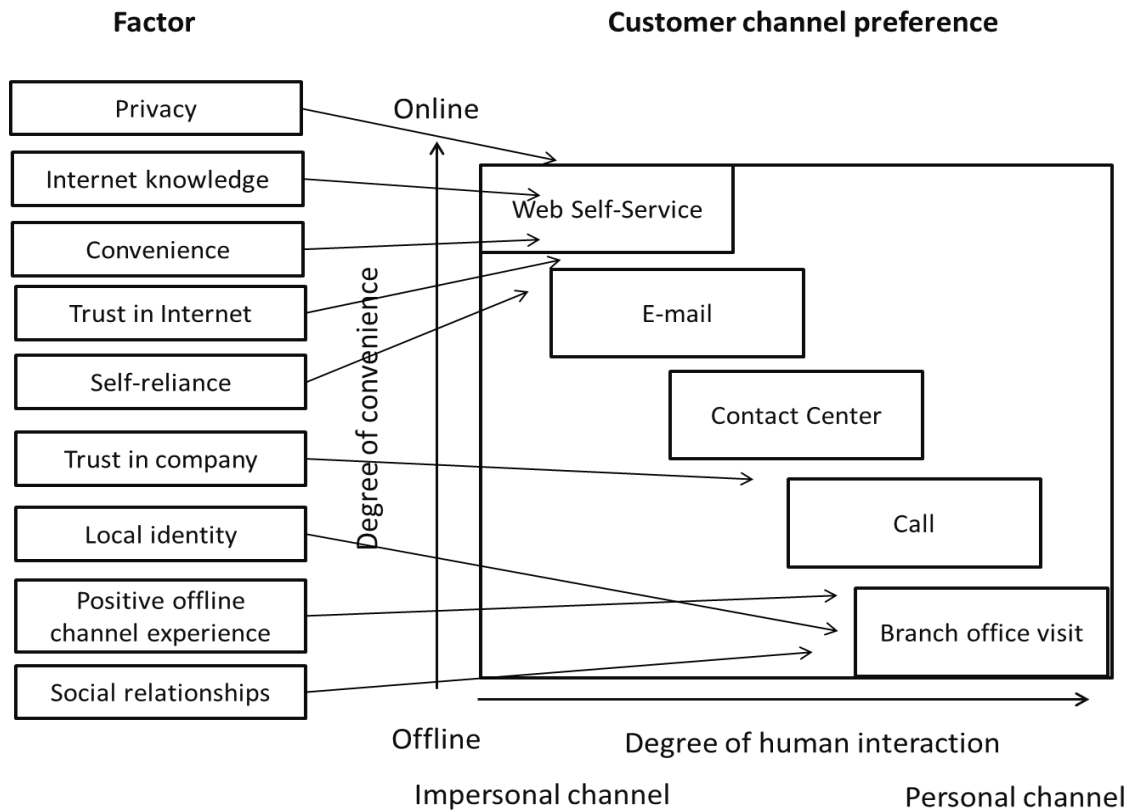
This chapter describes the theoretical framework for the formation of customer channel preferences. It is built upon the academic literature on channel preferences, selection and adoption in financial industry. From the previous research the most fitting findings for the context have been selected to be used as measures for the channel preferences in consumer insurance industry.

The proposed framework describes the aforementioned factors that influence channel customer behavior. The 16 possible factors are illustrated on the left side of the chart and their position on the right indicates how the factor influences customer channel preference. When moving upwards on the scale, the degree of convenience of the channel increases and when moving right the degree of human interaction grows. Channel examples have been placed on the scale to illustrate how the changes in the two counterforces affect the actual channel preferences. These two factors were chosen, because they were most present in the previous academic literature.

From the factors presented the need for social relationships, strong local identity and positive experiences in face-to-face and telephone channels are assumed to have a positive influence in driving customer channel preferences towards personal, but less convenient channels. Factors such as the need for privacy in conducting insurance errands, knowledge about Internet, need for convenience and self-reliance are assumed to influence channel preferences towards the more convenient, but less social channels, that are usually online.

The theories on how trust towards the company affects the channel preference are conflicted; the studies that deal with new channel adoption name trust towards the company a positive influencer in adopting new channels (Howcroft et al., 2003), but trust that is formed towards a company through a particular channel seems to prohibit the adoption of new channels (which can in this case be assimilated to creating channel preference) by enhancing the perceived risk of online channels (Hahn & Kim, 2009). Due to the pivotal role of trust in financial services it was included in the framework and to be tested in the empirical research from both these two angles.

Figure 1 Theoretical framework for channel preference



The following empirical part of this study will test this framework and strive to find out whether these factors influence consumer insurance customers' channel preferences. It will also investigate to what extent the factors influence the channel preferences and finally try to answer, what dimensions of channel preference do different customer groups perceive as important and can customers be group based on their channel preferences.

3 Methodology

The goal of the empirical part of this study was to find the factors guiding customers' decisions regarding channel selection in personal insurance matters. Furthermore the goal was to classify these factors and compare them with one another and to find to what extent

they influence the customers' decision and what are the most crucial ones in the decision process. Based on these findings the aim was to find distinctive customer groups so that the marketers can develop the delivery channels of insurance services to better match customer needs and to gain knowledge of how to target marketing or allocate resources in these channels to various customer groups.

The research focused on consumer insurance and the channels available for consumers. The channels selected to be studied were chosen based on discussions with managers in customer service in the company in question and analysis on company's data on customer contact volumes in each channel.

Quantitative research approach was selected to address these matters, and a survey questionnaire was compiled based on previous research articles in the field of customer channel selection in financial sector. The questionnaire was developed to provide data to test the previously drawn up theoretical framework for channel preference. In practice, the research was carried out by an Internet questionnaire sent to customers' email addresses. The primary emphasis in this study was on three multivariate research methods; factor analysis, regression analysis and cluster analysis.

3.1 Data gathering

The population of the empirical study consists of the consumer customers of a Finnish financial service provider. More specifically the customers in the population all were clients of the insurance company within this financial group.

The customers to whom the questionnaire would be sent to were gathered from the company's customer database. At the time of the gathering, there were two separate databases for customers based on their original insurance company (the customer data bases were not yet integrated after the merger). So the customer sample to be used in the study

had to be gathered from two separate systems. Same sampling criteria were used for both customer data bases.

Simple random sampling was used to gather the initial set of customers to whom the questionnaire would be sent.

After the exclusions the questionnaire was sent to 11 835 customers. A total of 714 customers completed the full questionnaire, which makes up a response rate of approximately 6 %. The response rate of the survey was lower than expected, but understandable, because of the length of the questionnaire (responding took approximately 13 minutes on average). The sampling of customers was done from the whole customer database, which means that some of the customers may not have been in contact with the company for a long time and there was no way of making sure all of the e-mail addresses were in fact correct or in use. This is why such a large number of invitations were sent and it might explain why the response rate was so low.

The research was designed to measure the constructs in the theoretical framework presented earlier. In order to ensure the validity and reliability, as many of the questions as possible was adopted from previous research in the field of interaction channel choice in multi-channel environment, namely Albesa's 2007 article, where he studies the customers' channel choice in banking context in Spain. Not all of the questions were fitting in the context of this research as it focuses on insurance customers in Finland and some of the interaction channels are different from the original research. In these parts the questions were modified to better suit the purposes of this research and its' research questions and the construct of the framework. The statement questions are listed in Table 1.

Table 1 Items used in the constructs

Item code	Construct	Text	Source
SR1	Social relationship	1) Personal relationships are important when conducting insurance business	Albesa, 2007, Modified
EXPoffice1	Channel experience	2) The people at the counter are nice and attentive	Albesa, 2007
SR2	Social relationship	3) Relating to people is important when conducting insurance business	Albesa, 2007, Modified
EXPoffice2	Channel experience	4) I get good advice at the branch office	Developed for this study
EXPoffice2	Channel experience	5) I get better service at the branch office than other channels	Developed for this study
Privac1	Privacy	6) I strictly guard my privacy when conducting insurance errands	Albesa, 2007, Modified
Privac2	Privacy	7) The person serving me shouldn't know my operations	Albesa, 2007
Privac3	Privacy	8) I don't need advice when conducting my insurance business	Albesa, 2007, mModified
Privac4	Privacy	9) I prefer to handle my insurance business on my own	Albesa, 2007, Modified
CONV1	Convenience	10) I value convenience in insurance errands	Developed for this study
EXPcall1	Channel experience	11) I get good service over the phone	Developed for this study
SR3	Social relationship	12) I want to be talking to a real person when dealing with insurance issues	Developed for this study
EXPcall2	Channel experience	13) I get good advice over the phone	Developed for this study
KINT1	Internet knowledge	14) I am used to running errands over the Internet	Developed for this study
KINT2	Internet knowledge	15) I often use Internet banking	Developed for this study
CONVINT1	Convenience	16) I get better service thanks to the Internet	Albesa, 2007
CONVINT2	Convenience	17) It is important to be able to perform insurance operations outside of office hours	Albesa, 2008
CONVINT3	Convenience	18) I appreciate not having to wait in line	Albesa, 2009
CONVINT4	Convenience	19) I appreciate that I can conduct my insurance business over the Internet from anywhere	Albesa, 2010
TRUST1	Trust in company	20) I trust my insurance company	Developed for this study
TRUSTINT1	Trust in Internet	21) I believe the Internet is a safe place to conduct my business	Developed for this study
LOCAL1	Local identity	22) I prefer conducting my business with local people	Developed for this study
LOCAL2	Local identity	23) I have a strong local identity	Developed for this study
LOCAL3	Local identity	24) I feel it is important to support local businesses	Developed for this study
TRUSTINT2	Trust in Internet	25) I think Internet is a safe place for shopping	Developed for this study

The research questions also required more in depth questions regarding customer preferences in different service settings and situations. For these purposes, channel preference questions in five (5) different service settings were added to the questionnaire. The situations included;

- 1) Checking or changing your own insurance or contract information
(e.g. checking the coverage of insurance or updating contract information)
- 2) Obtaining information about insurances (e.g. prices or coverage)
- 3) Buying a single insurance (e.g. travel insurance)
- 4) Fixing an error or confusion in billing
- 5) Mapping your entire insurance needs / tendering all insurances

The situations ranged from simple (checking or obtaining information, billing errors) to complicated (mapping needs or tendering the entire insurance package) and from low risk purchase (cheap, single insurance) to high risk (tendering all insurance). In each five situations, the respondents were asked to evaluate each of the 12 channel options on a Likert scale from 1 to 10 which provided us with information about how the service situation affects the channel preference in each respondent. These questions provided us with the information needed to answer the research question about how much each factor accounts for the channel preference, as based on the answers a new variable was created to measure the degree to which the customers require personal service overall. It was decided that the most suiting measure for the need of personal service was to first calculate the mean preference scores for channel options in each service situation. Then rank the channel options from most personal to least personal and to subtract the score for least personal from the score of most personal (Visiting a service agent that you know – Self-service in online platform). As a result a score from -10 to 10 for each respondent was obtained, where a score of –10 represents the least desire for personal service and a score of 10 the most desire. Using this measure allowed us to investigate the overall effects of the factors on channel preference and to form a more general perception of how the factors work.

The service situations effect on single channel preferences can be observed in Table 4 in chapter 4.1, where the channel preference scores for each channel in all service situations are displayed.

3.2 Methods of analysis

Where Albesa (2007) used confirmatory factor analysis in his study to certify the hypotheses, it was considered exploratory approach would be more fitting in this research. There are no channel preference studies in the field of insurance services to compare the results with, so it was more natural to carry out the research in a more exploratory way,

where the idea was to discover important underlying factors influencing consumer preferences rather than confirm existing ideas or hypotheses.

3.2.1 Factor analysis

A Factor is an underlying dimension that describes the correlations between a set of different variables. Factor analysis, on the other hand, is the general name for a class of procedures primarily used for data reduction and summarization in research consisting of multiple variables. Factor analysis is used in marketing research in situations, where there is a large number of variables, most of which are correlated and must be reduced to a manageable level. (Malhotra & Birks 2006, 572).

The analysis examines relationships between interrelated variables and groups them based on their underlying dimensions. In practice a factor is formed from a group of variables that have a strong correlation with one another, but do not correlate well with other variables or variable groups. The basic idea of factor analysis is that the underlying factors are the cause for the observations and not the other way around. (Malhotra & Birks 2006, 573; Karjaluoto 2007).

The factor model can be represented as follows:

$$X_i = \sum_{j=1}^m (A_{ij} F_j) + V_i V U_i$$

where: X_i = i th standardized variable

A_{ij} = standardized multiple regression coefficient of variable I on common factor j

F = common factor

V_i = standardized regression coefficient of variable i on unique factor i

U_i = the unique factor for variable i

m = number of common factors

The common factors themselves can be expressed as linear combinations of the observed variables:

$$X F_i = \sum_{j=1}^k W_{ij} X_j$$

where: F_i = estimate of i th factor

W_{ij} = weight or factor score coefficient

k = number of variables

(Malhotra & Birks 2006, 573-574).

The factor analysis can be divided into two distinctive statistical techniques; exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The first can be described as orderly simplification of interrelated measures and it has traditionally been used to explore the possible underlying factor structure of a set of observed variables without imposing a preconceived structure on the outcome. CFA on the other hand is used to verify an existing presumption of factor structure. In this method, the researcher tests his predefined hypotheses statistically by postulating the relationship pattern a priori and confirming or invalidating that a relationship between observed variables and their underlying latent constructs exists. (Suhr 2006). In practice this means that when conducting a confirmatory factor analysis the researcher decides the number of factors beforehand based on his theory and when conducting an exploratory analysis the number of factors is found through the statistical analysis (Karjaluo 2007). Exploratory factor analysis technique was used in this thesis because of the nature of the research that required explanation of the variation in the original variables rather than confirmation of pre-existing variable relationship construct. The amount of constructs and dimensions was not unambiguously known before the research was done.

The interpretation of factor analysis is based on factor loadings. They are described as simple correlations between the variables and the factors (Malhotra & Birks 2006, 574). The interpretation is done by identifying variables with large loadings on the same factor which allows the factors to be interpreted in terms of the variables that load high on it. (Malhotra & Birks 2006, 583). The magnitude of the factor loading describes how much of the variable variation can be explained by the factor in question. The loadings score between 1 and -1 and the higher the absolute value of the factor the better the factor explains the variation. A negative loading tells us about negative correlation between the variable and the factor values but can be just as describing as a positive factor loading. (Karjaluo 2007).

Factor analysis has its own stand-alone value for the research as it is used to identify underlying dimensions behind the numerous variables. It helps understand the reasons for different kinds of consumer behavior in channel preference and simplifies the results to a

more manageable form. With this said the factor analysis can also be used to reduce the original set of variables to a smaller set of composite variables for use in subsequent multivariate analyses (Malhotra & Birks 2006, 583), in this case regression analysis and cluster analysis. For this use factor scores were calculated for each respondent and they will be used later in following analyses instead of the original variables.

3.2.2 Regression analysis

Regression analysis is a statistical procedure for analyzing associative relationships between a continuous dependent variable and one or multiple independent variables (Malhotra & Birks 2006, 519). If more than one independent variable is used to explain the variation in the dependent variable, the analysis method is multiple regression analysis.

Multiple regression is the most widely used multivariate technique and with its broad applicability it can be used for many purposes. The applications fall into two broad classes of research problems; prediction and explanation. Explanation examines the regression coefficients, their magnitude, sign and statistical significance for each independent variable and attempts to develop a reason for the effects. (Hair & al. 2010, 169). Here the regression analysis is used for relative effect explanation, in other words to determine how much of the variation in the dependent variable can be explained by the independent variables.

The linearity of the relationship between dependent and independent variables represent the degree to which the change in the dependent is associated with in the independent variable. The regression coefficient is constant across the range of values for the independent variable. The concept of correlation is based on this linearity, which makes it a crucial issue in the analysis. (Hair & al. 2010, 183). Here the dependence between the variables is assumed linear and the residuals normally distributed (appendix a). Other issues of regression diagnostics are addressed in the validity and reliability section.

As the dependent variable in this study is measured on ratio scale (as the degree of need for personality in service situation on a scale of -10 to 10, where 10 represents the most need for personal service) and the independent variables are the factor scores obtained from factor analysis for each respondent, normal or linear regression model is used for the analysis.

3.2.3 Cluster analysis

Cluster analysis is a multivariate technique whose primary purpose is to group objects together based on their characteristics. Cluster analysis is comparable to factor analysis in its objective of assessing structure, however, it differs from factor analysis as it is primarily concerned with grouping objects, whereas factor analysis is concerned with grouping variables. (Hair & al. 2010, 508). Cluster analysis classifies the objects on a set of user selected characteristics. The resulting clusters should exhibit high homogeneity within clusters and high heterogeneity between clusters so, that the variation within groups is minimized and the variation between groups is maximized (Hair & al. 2010, 508 and Malhotra & Birks 2006, 597). Cluster analysis has been used in every research setting imaginable (Hair & al. 2010, 508) and in marketing it has been used for example in segmenting the market, understanding buyer behavior, identifying new product opportunities, selecting test markets and reducing data etc. (Malhotra & Birks 2006, 598).

Here, cluster analysis was used to identify and group customers with similar channel preference characteristics. The variables chosen for examination were the factor scores obtained earlier from principle component analysis, while they already have been proven (in factor analysis and in regression analysis) to be meaningful in driving customer channel selection.

Cluster analysis methods can be divided into hierarchical and nonhierarchical procedures (Hair & al. 2010, 507). Hierarchical clustering is characterized by the development of a

hierarchy or treelike structure. In agglomerative clustering all objects are first in separate clusters and clusters are formed by grouping objects into bigger and bigger clusters. In divisive clustering all objects are first in a single cluster, which is divided until each object is in a separate cluster. (Malhotra & Birks 2006, 601). Nonhierarchical procedures first determine a cluster center and then group all the objects within a pre-specified threshold value from the center (Malhotra & Birks 2006, 603). The procedure does not produce results for all possible numbers of clusters as is done with hierarchical clustering (Hair & al. 2010, 507). A nonhierarchical clustering procedure was used in this study, as it is suggested for sample sizes larger than 250. The clustering was done using K-means algorithms, which work by partitioning observations into a user-specified amount of clusters. It iteratively reassigns observations until a numeric goal related to cluster distinctiveness is met. (Hair & al. 2010, 507) Here, that numeric measure is Euclidean measure of distance, which is the most commonly used measure of similarity between two objects. It is the square root of the sum of squared differences in values for each variable (Malhotra & Birks 2006, 600).

3.3 Validity and reliability

Validity refers to the extent to which the measures or the analyses correctly represent the concept of study. In validity the concern is focused on how well the concept is defined by the measures, whereas reliability relates to the consistency of the measures. When validity relates to what should be measured, reliability is focused on how it was measured. (Hair & al. 2010, 3).

In this study the empirical research is based on previous academic research and the structure of the questionnaire as well as the variables used were either derived from either similar previous studies or were based on theories presented in previous academic works. Due to the absence of exactly similar research in this context, some modifications had to be made to the questions and to the structure of the questionnaire.

The total error of this study refers to the variation between the true value in the population of the variable in interest and the observed mean value obtained in the research. The total error is composed of random sampling error and non-sampling error. Random sampling error occurs when particular sample is an imperfect representation of the population of interest and non-sampling error relates to errors attributed to sources other than sampling (e.g. problem definition, questionnaire design data preparation and analysis). (Malhotra & Birks 2006, 74).

Simple random sampling was used in this study to collect the sample needed. In this sampling method all elements in the population have equal and known probability to be selected and every element is selected independently of every other element (Malhotra & Birks 2006, 367). The sampling frame of this study was limited to customers willing to answer the questionnaire. From this set of customers some exclusions were made based on customers' age (no clients under the age of 18) and their pre-determined willingness to receive marketing material via email (it was acknowledged that by definition this research is not marketing material, but due to previous experience, people not willing to receive marketing email easily get upset by requests to participate in research, the decision was made to exclude them).

Some distortion in the sample can be found due to the medium through which the questionnaire was sent to the customers; some customers in the population did not have a known email address, which means that they could not be included in the study. Due to the fact that younger generations have adopted the Internet and email services more comprehensively (Statistics Finland, 2012), we could assume that the distribution loads would be more on the younger generations than the population would suggest. This, though, is not the case here as we can see in the data description section, as the younger generation seems to be underrepresented in the study if one was to compare it with the age structure of the whole population of the country. The population of interest in the study, on the other hand, (customers in a Finnish insurance company) is adequately represented in the sample. Based on a confidence level of 95 % and a confidence interval of +/- 4 % the total

sample size of 714 customers can be considered representative to the customer base in question and generalizable to the context of this study.

Non-sampling errors were minimized by pre-testing the questionnaire and eliminating inconsistencies in the framing of the questions. Automatic questionnaire system was used to acquire the data, which should eliminate errors related to the interviewer.

In the factor analysis, reliability was confirmed by calculating Cronbach's alphas for each factor. The values for each component were above the required limit of .60 (Malhotra & Birks 2006, 314). Keyser-Meyer Olkin's test of sampling adequacy was performed on the analysis. High values between 0.5 and 1.0 indicate that the factor analysis is appropriate. (Malhotra & Birks 2006, 574). The KMO measure of this factor analysis is .844, which indicates that the conditions are good for the analysis. Bartlett sphericity coefficient of 7668.079 with a significance of .000 was obtained, so the correlation matrix can be accepted for the principal component analysis.

The eigenvalue represents the total variance explained by each factor. The greater the value the better the factor explains the variation between variables. (Malhotra & Birks 2006, 574). In this research we have accepted only factors with higher eigenvalue than 1.

In the regression analysis the reliability issues were addressed by performing diagnostic measures for regression analysis. The residual normality and linearity were assessed by forming a regression standardized residual histogram and regression plot, which indicate that the residuals are normally distributed and that the dependence between variables is linear.

Multicollinearity is a state of high intercorrelation among independent variables (Malhotra & Birks 2006, 538). The tolerance value of multicollinearity is the amount of a variable unexplained by the other independent variables. Small tolerance values and large VIF values, because $VIF = 1 / \text{tolerance}$, denote high collinearity. The suggested cutoff point for the VIF is 10, which corresponds to a multiple correlation of .95 with the other independent variables, but smaller VIFs are recommended to ensure reliability. (Hair & al. 2010, 204).

Here all VIF values are between 1.019 and 1.112 (appendix a), so multicollinearity can be ruled out as a problem. Serial correlation problems were addressed by performing a Durbin-Watson test, where the score should settle close to 2 and the score obtained was 2.002 (Malhotra & Birks 2006, 534).

Homoscedasticity occurs when the variance of the error terms appears constant over a range of predictor variables and the assumption of heteroscedasticity is critical to the proper application of regression analysis (Hair & al. 2010, 35). Heteroscedasticity was analyzed based on the dispersion of the dependent variable across the values of independent variables and heteroscedasticity was ensured. The total p value of the model was .000. From this we can draw that the measures in the regression model are consistent.

The quality of clustering results was ensured by performing cluster analysis on the same data using different distance measures and different clustering methods and comparing the results. Experiments were also done using different numbers of clusters and changing the order of cases in the analysis. Results were compared across measures to ensure the stability of the solution.

4 Empirical results

4.1 Description of data

The questionnaire resulted in total 714 responses. It was designed so, that every question on the form was mandatory, so that it would not be necessary to exclude answers afterwards. All the answers were suitable for use in the multivariate analysis methods. The main demographic characteristics of the respondents are described in Table 2.

Table 2 Demographic Characteristics of the respondents (n = 714)

<i>Demographic characteristic</i>	<i>Number of respondents</i>	<i>%</i>
<i>Original company*</i>		
1.	420	58.8
2.	294	41.2
<i>Gender</i>		
Male	392	54.9
Female	322	45.1
<i>Age</i>		
18-30	100	14.0
31-40	131	18.4
41-50	178	24.9
51-60	165	23.1
61-70	110	15.4
71-	30	4.2
<i>Education</i>		
Primary School	59	8.3
High School	36	5.0
Vocational School	275	38.5
Baccalaureate	197	27.6
M.Sc.	136	19.0
Ph.D.	11	1.5
<i>Area of residence</i>		
Lapland	19	2.6
North-Eastern Finland	16	2.2
North-Western Finland	58	8.1
Western Finland	29	4.1
Central Finland	166	23.3
Eastern Finland	130	18.2
South-Western Finland	112	15.7
Capital Area	184	25.8

**The customers are divided into two data bases based on their original company before the merger*

The distribution of respondents by gender is quite equal as circa 55 % of the respondents are male and 45 % female. The age groups 41 – 50 and 51 – 60 seem to be slightly overrepresented in the sample, and the far ends of the age distribution seem to be underrepresented. The group of 18 – 30 only accounts for 14 % of the total responses which might cause some distortion in the results as younger customers tend to be more receptive to novel forms of interaction; they are more likely to use mobile/Internet channels (Black et. Al. 2002). On the other hand the over 71 age group only accounts for 4.2 % which can easily be explained by the low adoption rate of email and Internet in this demographic group (Statistics Finland 2012).

Below, in table 3, are the average scores for the 1 to 10 Likert scale statement questions presented earlier for the entire sample. As one can see, there are a few statements that arise from the mass; Relating to people seems to be important, scoring 8.0 on the scale, which suggests that social relationships are viewed as important when conducting insurance errands. On the other hand, convenience is rated even higher at 8.5. Talking to a real person scores high on the scale at 8.6 while knowledge of internet banking also gets 8.3 and the statement of not having to wait in line gets the highest score of 8.7. From this we can draw that people value social relationships which are most present at the branch office, but even more they seem to appreciate convenience most often incorporated with running errands over the Internet.

Table 2 Mean scores for items used in constructs

Item code	Construct	Text	Mean	Standard deviation
SR1	Social relationship	1) Personal relationships are important when conducting insurance business	7.09	2.35
EXPoffice1	Channel experience	2) The people at the counter are nice and attentive	7.60	1.95
SR2	Social relationship	3) Relating to people is important when conducting insurance business	8.00	1.89
EXPoffice2	Channel experience	4) I get good advice at the branch office	7.20	2.16
EXPoffice2	Channel experience	5) I get better service at the branch office than other channels	6.94	2.30
Privac1	Privacy	6) I strictly guard my privacy when conducting insurance errands	6.67	2.39
Privac2	Privacy	7) The person serving me shouldn't know my operations	4.91	2.19
Privac3	Privacy	8) I don't need advice when conducting my insurance business	3.52	2.13
Privac4	Privacy	9) I prefer to handle my insurance business on my own	4.37	2.48
CONV1	Convenience	10) I value convenience in insurance errands	8.49	1.58
EXPcall1	Channel experience	11) I get good service over the phone	7.17	2.22
SR3	Social relationship	12) I want to be talking to a real person when dealing with insurance issues	8.58	1.78
EXPcall2	Channel experience	13) I get good advice over the phone	6.68	2.20
KINT1	Internet knowledge	14) I am used to running errands over the Internet	7.27	2.53
KINT2	Internet knowledge	15) I often use Internet banking	8.32	2.48
CONVINT1	Convenience	16) I get better service thanks to the Internet	6.89	2.53
CONVINT2	Convenience	17) It is important to be able to perform insurance operations outside of office hours	7.28	2.49
CONVINT3	Convenience	18) I appreciate not having to wait in line	8.72	1.60
CONVINT4	Convenience	19) I appreciate that I can conduct my insurance business over the Internet from anywhere	7.54	2.33
TRUST1	Trust in company	20) I trust my insurance company	7.77	2.05
TRUSTINT1	Trust in Internet	21) I believe the Internet is a safe place to conduct my business	7.37	2.19
LOCAL1	Local identity	22) I prefer conducting my business with local people	7.18	2.44
LOCAL2	Local identity	23) I have a strong local identity	5.96	2.63
LOCAL3	Local identity	24) I feel it is important to support local businesses	7.83	2.11
TRUSTINT2	Trust in Internet	25) I think Internet is a safe place for shopping	6.61	2.34

These values need to be examined more closely, which is why the factor analysis and regression analysis are crucial. The factor analysis helps us understand the underlying value behind these statements and simplify the results as the regression analysis provides us with more accurate information about how these variables and factors influence the channel preference. Cluster analysis will in turn give us the information on how to group these customers based on the findings we acquire from the preceding multivariate analyses.

All the participants in this study were asked to list the contact channels they have used in the past, when conducting insurance errands. Only 10.34 % of the respondents reported to using only one channel, which indicates that even though the channel preferences may vary, the customers are still quite accustomed to using multiple channels and that the channel selection is also relative to situational factors.

Table 4 Mean preference scores for channels in different service situations

	Checking own insurance information	Getting information about insurances	Buying single insurance	Correcting an error	Mapping insurance needs/tendering	Mean
Visit agent you know	7,68	7,45	7,01	7,25	8,29	7,54
Call agent you know	7,5	7,36	7,2	7,86	7,22	7,43
Email agent you know	7,23	7,01	6,92	7,35	6,76	7,05
Visit office	7,15	7,01	6,84	6,92	7,54	7,09
Call office	6,71	6,51	6,39	6,95	6,14	6,54
Email office	6,39	6,21	6,04	6,49	5,81	6,19
Call contact center	4,78	4,83	4,86	5,22	4,22	4,78
Fill web form	5,95	5,66	6,12	5,35	4,78	5,57
Online self-service	6,05	5,76	6,18	5,24	4,6	5,57
Mobile self-service	4	3,9	4,08	3,64	3,29	3,78
Message in online service	5,23	4,84	4,75	4,63	3,92	4,67
Chat in online service	3,32	3,31	3,25	3,18	2,8	3,17

Above in Table 4 are the mean average scores for customer channel preferences in different service situations. The customers were asked which channel they would most preferably use when given the choice (on a scale of 1 to 10, when 10 = would like to use most preferably and 1 = would not want to use in any circumstances). The results clearly indicate that the most favorable channel regardless of situation is calling or visiting a previously known customer service agent or representative. This was of course expected as people tend to conduct their business most preferably with people they already know. This also goes to show the importance of having a contact person in the company. The results however vary depending on the situation on how one might prefer to contact that person.

When checking insurance information (etc. terms and conditions or coverage of some insurance), the most preferred way is to visit the agent. The same goes for when obtaining information about insurances and when mapping insurance needs of the customer and his/her family or tendering the whole insurance package. Calling the insurance agent is the most preferred way when buying single insurance, or when correcting an error. Emailing

the contact person does not fall long behind from the other contacting methods and is even more preferable than visiting when correcting insurance related errors.

It is important to note a difference in these results between the channels that involve a personal contact person (agent you know) and the results in channels that do not. We get better information about the formation of channel preferences when we examine these separately as they might not be comparable. When observing the results of channel preferences without the known service person, visiting the branch office is the most preferred option by average (7.09) when given the choice. Calling the office (6.54) comes second and emailing the office (6.19) is the third most preferred method of contacting. The least favorite method of contacting seems to be chatting online (3.17). One reason for that might be that the company in question does not yet have a chat possibility on its web site and the customers are just not familiar with this method. The same goes for mobile self service (3.78). The customers can perform insurance tasks on their mobile devices if they use the browser, but there is yet no easy to use mobile application to do this. The customers are just not familiar enough with these methods, which were mentioned as one of the factors driving customer channel preferences in the theoretical framework (the knowledge of how a particular channel works increases the likelihood of its use, Pikkarainen et al., 2004, Lai & Li, 2005, Albesa 2007).

What is interesting in these results is that calling the office is far more preferred than calling the contact center. This might be because of the bad reputation of call centers in general. Online self-service and online web forms are preferred over contacting the call center overall. In these channels, it seems that the situation and the reason for contacting influence what channel is preferred. When it is about a simple task (e.g. checking information, buying single insurance), the online channels and the non face-to-face channels are relatively more preferred. And when the situation involves more risk and is perhaps more complex (e.g. mapping insurance needs / tendering insurance package) the face-to-face channels are preferred, seemingly because they add more personal service and human interaction into the service situation.

In the next chapter, factor analysis is used to find out more about these underlying reasons for preferring one channel over the others.

4.2 Factor analysis

The factor analysis was implemented on the results obtained from the first statement section of the questionnaire (table 1). The goal was to obtain more in-depth information about the underlying factors behind the variables and to simplify the results into a more manageable and understandable form (and to answer the research question; *which factors influence the customers' channel preferences*). The following procedures were done with IBM SPSS data analysis software.

The analysis technique used in this research was principal component analysis, which is recommended when the primary concern is to determine the minimum number of factors that will account for maximum variance in the data. This also allows the use of the acquired data in subsequent multivariate analysis. (Malhotra & Birks 2006, 578) Keyser-Meyer Olkin's test of sampling adequacy, an index used to examine the appropriateness of factor analysis, was performed on the analysis. High values between 0.5 and 1.0 indicate that the factor analysis is appropriate. (Malhotra & Birks 2006, 574). The KMO measure of this factor analysis is .844 which indicates that the conditions are good for the analysis. Bartlett sphericity coefficient of 7668.079 with a significance of .000 was obtained, so the correlation matrix can be accepted for the principal component analysis. The factors were rotated using varimax procedure, an orthogonal method of factor rotation that minimizes the number of variables with high loadings on a factor, thereby enhancing the interpretability of the results (Malhotra & Birks 2006, 582). The variables were only linked to the one factor they scored the highest factor loading on (appendix a).

The consistency reliability of each factor was tested using Crombach's alpha and all factors scored over the required limit of .60 (Malhotra & Birks 2006, 314). Also the communalities

are reported on each variable and they meet the requirements ($>.30$) (Karjaluoto 2007). Only factors with eigenvalues exceeding one (eigenvalue > 1) were accepted in the model.

Table 3 Item factor loadings, communalities, reliability

	Factor loading	h2	Cronbach's alpha
Factor 1 “Locality and personal relations”			
I feel it is important to support local businesses	.790	.657	.827
I have a strong local identity	.771	.664	
I prefer conducting my business with local people	.733	.670	
I want to be talking to a real person when dealing with insurance issues	.594	.563	
Relating to people is important when conducting insurance business	.588	.614	
Personal relationships are important when conducting insurance business	.583	.557	
Factor 2 “Trust in Internet”			
I believe the Internet is a safe place to conduct my business	.722	.650	.800
I am used to running errands over the Internet	.714	.598	
I think Internet is a safe place for shopping	.709	.548	
I get better service thanks to the Internet	.701	.588	
I often use Internet banking	.649	.469	
Factor 3 “Experience of branch office”			
I get better service at the branch office than other channels	.720	.673	.747
I get good advice at the branch office	.716	.785	
The people at the counter are nice and attentive	.676	.738	
I strictly guard my privacy when conducting insurance errands	.511	.652	
Factor 4 “Experience of call center”			
I get good advice over the phone	.853	.783	.814
I get good service over the phone	.852	.798	
I trust my insurance company	.645	.606	
Factor 5 “Convenience”			
I appreciate not having to wait in line	.702	.569	.704
I appreciate that I can conduct my insurance business over the Internet from anywhere	.627	.633	
It is important to be able to perform insurance operations outside of office hours	.621	.611	
I value convenience in insurance errands	.408	.362	
Factor 6 “Self-reliance and privacy”			
I prefer to handle my insurance business on my own	.729	.612	.625
The person serving me shouldn't know my operations	.711	.651	
I don't need advice when conducting my insurance business	.695	.591	

The resultant six (6) principal components explained 62.56 per cent of the total variance of the variables. These components describe the underlying value patterns of customers and their primary orientation on channel preference. On the basis of the content and the loading of the variables, the six principal components were called; “locality and personal relations”, “trust in internet”, “experience of branch office”, “experience of call center”, “convenience” and “self-reliance and privacy”.

Factor 1 “Locality & Personal relations”

Factor 1 emphasizes values related to locality (need to support local businesses and preference of local people over others in insurance issues) and personal relationships. The need for human interaction when running insurance errands and the strong local identity seem to be strongly linked here.

Factor 2 “Trust in Internet”

Factor 2 describes the trust in Internet, both as a place of conducting insurance errands and shopping. It also contains the routine of using the web in similar errands and the idea that Internet allows customers to get better service. Knowledge of the Internet goes hand in hand with the trust towards it.

Factor 3 “Experience of branch office”

Factor 3 comes from the good past experiences in branch offices or the expectation of them.

Factor 4 “Experience of call center”

Also factor 4 consists of good experiences when calling the insurance company.

Factor 5 “Convenience”

Factor 5 emphasizes convenience over other attributes when conducting insurance business.

Factor 6 “Self-reliance and privacy”

Factor 6 describes the need and confidence to handle business independently and the need for privacy in personal insurance issues.

All of the items in the factor analysis were emphasized under some construct. Most of the items were emphasized under the expected factors, but some exceptions occurred. The item 6, “I strictly guard my privacy, when conducting insurance errands”, was expected to fall under the factor 6, self-reliance and privacy, but instead it was emphasized under factor 3, experience of branch office. The logical reasoning for this might be, that guarding one’s privacy is not seen as protecting the insurance information from the insurance agent, but from the dangers of Internet. The item 20, “I trust my insurance company” was expected to be emphasized in the factor 2, trust in Internet. The assumption was that trusting the insurance company would be associated with trusting the Internet, but it turns out that this item was instead emphasized under factor 4, experience of call center.

The original amount of nine constructs (privacy, Internet knowledge, convenience, trust in Internet, self-reliance, trust in company, local identity, positive offline channel experience and social relationships) in the theoretical framework was reduced to six factors in the analysis. This was due to some of the constructs to becoming combined in the factor analysis. Items related to privacy were emphasized in the same factor as self-reliance. Internet knowledge items went under the trust in Internet –construct and local identity and social relationships were grouped together as well. The positive offline channel experience, on the other hand, was divided into two separate channel experience factors; experience of branch office and experience of call center.

4.3 Regression analysis

The regression analysis was used to assess the amount of each factor's effect on channel preference. All six factors were evaluated based on their effect on the channel preference variable developed to describe the degree to which the respondents prefer personal service in their insurance interactions. Each respondent was given a score, which described the degree of need for personal service according to which channels he/she preferred in each service situation. The score was obtained by deducting the average score the respondent had given to the preference of the most non-personal channel (web self-service) from the preference score given to the most personal channel (visit a service agent that you know at a branch office). This score ranged from – 10 (least need for personal service) to 10 (most need for personal service) and was used as the dependent variable in the analysis. The independent variables were the factor scores obtained earlier from the factor analysis. Customer background variables (original company, gender, age, area of residence, education, occupation and monthly income) were tested as control variables and they had little effect on the model (appendix a).

Table 6 presents summary statistics for the concluded regression. The R^2 and the adjusted R^2 of the analysis (.491 and .482, respectively) indicate that the model is reasonably well specified, as it explains 48 percent of the variation. The F-statistic for the entire regression model is significant ($F = 51.893$ and $p = .000$).

Table 6 Regression analysis

Independent variables	Standardized coefficients	t-Value	p-Value
F1 Locality & Personal Relations	.417	14.666	.000*
F2 Trust In Internet	-.441	-15.859	.000*
F3 Experience of Branch Office	.220	8.044	.000*
F4 Experience of Call Center	-.055	-1.996	.046*
F5 Convenience	-.166	-5.877	.000*
F6 Self-Reliance & Privacy	-.128	-4.692	.000*

F-statistic = 51.893

*Significance = .000**

R2 = .491

Adjusted R2 = .482

**Significant at the 5 percent level, two tailed test*

Factor 1 seems to have the most positive effect on the degree to which personal service is preferred in different service situations with a standardized coefficient of .417. This is, of course, quite intuitively logical as the factor reflects the perceived importance of social relationships and human interaction. Factor 2, on the other hand, has the largest but negative (-.441) effect on the same variable, which indicates that, it drives customers into using more impersonal channels. Positive experiences and expectations of the service at branch offices seem to increase the likelihood of customers preferring personal channels (.220). The Factor 4 indicates that good experiences and expectations of service at call center have a slight negative impact (-.055) on the preference of personal channels, when conducting insurance errands. It was expected that the relative effect of this particular factor would not be large to either way as the call center as a contact channel can be seen as an “in-the-middle” channel, when it comes to the degree of human interaction. The Factor 4

also has the highest p-value indicating that it is the least statistically significant (even though being statistically significant at the 5 percent level, two-tailed test, $p = .046 < .05$).

Factor 5, convenience, has a negative coefficient of $-.166$, which makes it a factor that negatively influences the preference of channels with high degree of personal service. In other words convenience drives customers towards online or non face-to-face channels. The same effect is observable in factor 6, self-reliance and privacy, as it has a standardized coefficient of $-.128$.

4.4 Cluster analysis

In the factor analysis, six different underlying dimensions were identified on the basis of what the customers consider important, when conducting insurance errands. These results were further analyzed by applying cluster analysis on the discovered factor points.

The cluster analysis was used to identify distinctive and homogeneous groups within the company's customers based on what factors drive their channel preference. In practice, the analysis was done by using K-means algorithms and trying different cluster amounts (2-7 clusters were inserted in the model) to find the best alternative. Two to three clusters did not produce versatile enough results about the customer groups and the distribution of customers in each cluster was considered overly uneven. When more than four clusters were inserted, the results were either difficult to interpret, as there were not strong enough variation between groups or the distribution of cases was again uneven. In the four-cluster solution, the distribution of cases between groups was quite even and there were strong enough differences between the groups, so that interpretations about the groups could be made. Below, in table 7, are the four clusters with the cluster centroids representing the average value of the characteristics, in this case, factor points.

Table 7 Customer groups described by principal component scores

	1. Non-Internet convenience seekers (N=150)	2. Non-Committed (N=161)	3. Local advice and relation seekers (N=222)	4. Self-reliant Internet users (N=181)
F1 Locality & Personal Relations	.162	-1.298	.513	.391
F2 Trust In Internet	-1.324	.138	.358	.535
F3 Experience of Branch Office	-.241	-.100	.312	-.094
F4 Experience of Call Center	-.221	-.159	.123	.173
F5 Convenience	.463	-.257	-.200	.090
F6 Self-Reliance & Privacy	.020	-.153	-.746	1.035
	21 %	23 %	31 %	25 %

Table 8 Analysis of variance for cluster analysis

ANOVA

	Cluster	Error	F	Sig.
	Mean Square	do	Mean Square	df
F1 Locality & Personal Relations	75.125	4	0.582	709
F2 Trust In Internet	87.473	4	0.512	709
F3 Experience of Branch Office	54.180	4	0.700	709
F4 Experience of Call Center	7.585	4	0.963	709
F5 Convenience	25.822	4	0.860	709
F6 Self-Reliance & Privacy	79.317	4	0.558	709

Table 9 Description of customer groups based on cross-tabulations (%)

	1. Non-Internet convenience seekers	2. Non-committed	3. Local advice & relation seekers	4. Self-reliant Internet users	Total % of customers
Gender					
<i>(p = .202)</i>					
Male	51.3	52.8	60.8	52.5	54.9
Female	48.7	47.2	39.2	47.5	45.1
Age					
<i>(p = .001)</i>					
Up to 35 years	16.7	35.4	17.6	25.4	23.4
36 - 50 years	36.7	27.3	36.9	33.7	33.9
Older than 50 years	46.7	37.3	45.5	40.9	42.7
Original company					
<i>(p = .010)</i>					
1	56.7	65.8	50.9	64.1	58.8
2	43.3	34.2	49.1	35.9	41.2

The cluster analysis model was further tested using variance analysis (Table 8), which describes the variable average differences between clusters, and the results were found statistically significant ($p < .05$) for all cluster groups. Interpreting and profiling of the clusters is based on examining the cluster centroids or means of factor scores. The centroids represent the average values of the objects contained in the cluster on each of the variables (Malhotra & Birks 2006, 606). Based on the analysis of the cluster centroids the four clusters were named: 1) Non-Internet convenience seekers, 2) Non-committed, 3) Local advice and relation seekers and 4) Self-reliant Internet users.

The clusters were further analyzed by cross-tabulation of the cluster memberships and customer background variables displayed in Table 9. From the background variables age and the original company of the customer produced statistically significant results ($p < .05$, on the Chi-square test). Gender of the customer can not be seen as statistically significant ($p = .202$), but it was included in the analysis as it might help describe the customers in different groups. One must relate to the gender results with caution.

1) Non-Internet convenience seekers

The first group was named Non-Internet convenience seekers as the most describing feature of this cluster is the under emphasis of the factor F2 Trust in Internet (-1.324). An interesting aspect of this cluster is that even though the customers in this group don't seem to trust Internet, they still value convenience, (F5 Convenience with a mean factor score of .463). This goes to show how Internet might not be the first option for people even if they appreciate the convenience it brings and they might consider other alternatives if the distrust of Internet is stronger than the need for convenience. One might also come to the conclusion that telephone channel is the optimal channel for this customer group as it is more convenient than going to a branch office. Also in this group the experiences from branch offices (F3) are underemphasized as well as the experiences from call centers (F4), but the experiences from branch office are slightly lower. The principal component score for F1 Locality and personal relations (.162) indicate a slight positive stance towards the importance of social relations in insurance errands and a minor preference for locality. This is the smallest group of the four with 150 customers, which makes up approximately 21 % of the whole respondent group. A typical customer in this group is over the age of 50 and customers under the age of 35 are least likely to be a part of this cluster. Women are also most present in this customer group.

2) Non-committed

This cluster was named Non-committed, because it is the one group, that has the lowest combined value of the factor scores, underemphasizing all of them, but the F2 Trust in Internet (.138). This group has the lowest principal component score on factor 1 locality and personal relations. The customers in this group do not see the special value in local service or do not need the personal relations, when conducting insurance business. Also their negative emphasis in experiences in the offline channels (factors 3 and 4) suggest, that

they would be more likely to pursue services online (Hahn & Kim, 2009). This group also is a conflicted one as the scores on factors 1 through 4 support the idea of online channel being the preferred choice, the scores on F5 Convenience (-.257) and F6 Self-reliance and privacy (-.153) indicate the opposite. It is thought though that the combined values of the first four principal component scores outweigh the latter ones. This is the second smallest group with 161 customers, which makes up approximately 23 percent of the whole respondent group. Based on the cross-tabulations customers under the age of 35 seem to be most present in this customer group. The original company of the customer before the merger also seems to affect the membership of this cluster as customers in this group are typically from the company number 1.

3) Local advice and relation seekers

This is the largest cluster with 222 customers, which makes up approximately 31 % of the total respondents. According to the cluster centroids, the most describing features of this cluster are the positive emphasis on factor 1 locality & personal relations (.513) and the negative emphasis on factor 6 self-reliance & privacy (-.746). The loadings on these factors paint a picture of a customer that values local people and services over others and personal relations when conducting insurance errands and need advice because of the lack of self-reliance in these matters. They are also not that concerned with their privacy when dealing with these issues, which indicates it would be easier for them to trust their personal information to service agents. Convenience is not a key concern for these customers as the factor score for F5 convenience is -.200. Also the positive scores on factors 3 (.312) and 4 (.123) would indicate, that the positive experiences and expectations in these channels would drive the customers to prefer personal channels also in the future. This group was the only one to score positive on both of these cluster centroids and is the one with highest combined factor score for offline channel experience (0.435). On the other hand this customer group also had a positive emphasis on the factor 2 trust in Internet, which means they are not unfamiliar with it and might consider it a valuable channel option in some

service situations. A typical customer in this group is a male between the ages of 36 and 50. This group is also favored by customers with a background in the original company 2.

4) Self-reliant Internet users

Self-reliant Internet users are the second largest customer group with 181 customers in it. That makes up about 25 % of the total customers that answered the survey. Factor 6, self-reliance & privacy is the most emphasized factor in this group with a score of 1.035, which indicates higher reliance on own skills and knowledge when it comes to insurance matters. The second most emphasized factor is the factor 2, trust in Internet with a score of .535, which is the highest score on this factor between all of the customer groups. The two most emphasized factors and the low emphasis on offline channel experience factors (F3 experience of branch office -.094 and F4 experience of call center .173) would suggest that the customers in this cluster are leaning towards the non face-to-face channels or online channels. On the other hand, there is slight positive emphasis on the locality & personal relations factor suggesting that personal service and locality are valued in some circumstances. Also the emphasis on convenience (F5 .090) is more neutral than expected, and it points out that this cluster cannot simply be categorized as only online customers, but there are more complex features in this group, that determine the channel preference. Customers with a background in original company 1 are more present in this group based on the customer group descriptions in Table 8.

It can be concluded that on the basis of the values obtained from the cluster centroids these results are statistically significant and can be generalized to include all customers in the company for the use of managerial decision making.

5 Conclusions and discussion

This study has looked into the formation of customer interaction channel preferences in a multichannel environment in the context of Finnish consumer insurance business. The primary goal of the research was to discover and examine the factors that guide consumer channel preferences based on customer characteristics. The study also strived to explore the relative effects these factors have on channels preferences and based on the found factors identify differences among customer groups. This was done by reviewing past research, viewing the underlying constructs within customer needs from a multidimensional perspective and employing multivariate analysis methods to explore the empirical data.

5.1 Framework revised

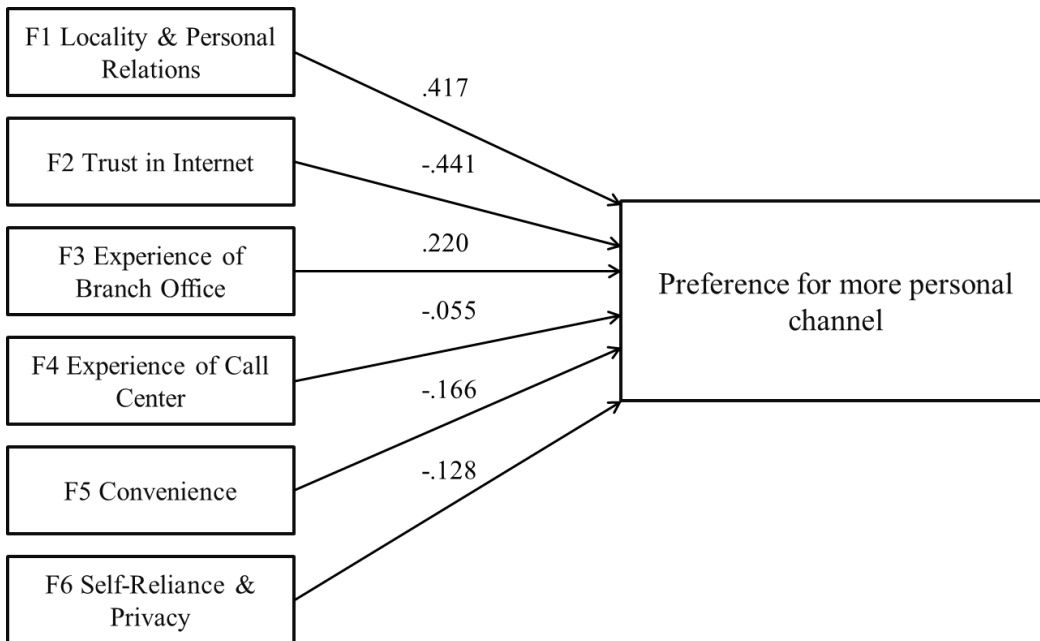
The chapter 2.6 introduced the theoretical framework for customer channel preferences in insurance industry based on the past academic literature. In Figure 2, this framework has been specified according to the results from the empirical research. The structure of the framework remains the same, but there are specifications to the factors, that drive the formation of customer preferences and the relative effects that these factors have on the degree of need for personal service and human interaction in the service situation.

In the original theoretical framework, there were nine different factors listed, that were all expected to have an effect on customer channel preferences. It is not argued that those nine factors would not have an effect on channel preferences on some level, but the framework has been specified to include only those components that were found to be strong enough to have a measurable effect in the empirical research. It must be kept in mind, that according to the regression analysis, these six factors explain approximately 48 percent of the variation in the way customers prefer different degrees of personal service when contacting their insurance company. The rest of the variation needs to be explained by some other

factors that have not been found in this research either because they were not included in the preliminary stages of the research or their effect is too small or inconsistent to be measured from this group of test subjects.

The original theoretical framework introduced nine factors based on previous research, which were; privacy, Internet knowledge, convenience, trust in Internet, self-reliance, trust in company, local identity, positive offline channel experience and need for social relationship. In the factor analysis this amount was abstracted to six; locality and personal relations, trust in Internet, experience of branch office, experience of call center, convenience and self-reliance and privacy. Some of the factors found in the factor analysis combine elements from the previous literature, such as factor 1, locality and personal relations, which is composed of elements related to strong local identity and the need for personal relations. Factor 6, self-reliance and privacy, combines two factors from previous literature, as the name would suggest. The offline channel experience factor, on the other hand, is broken down into two factors, that both influence the channel preferences in their own way; positive experiences in branch office reinforce the need for personal service while the positive experiences of call center services slightly guide customers' preferences towards non-social channels. Factor 2, trust in Internet, and factor 5, convenience, were both found in the original framework.

Figure 2 Revised theoretical framework



The regression analysis, which was used to measure the relative effects of these principal components, described how the factors affect the customers' need for social relationship when running insurance errands based on the dependent variable, which was calculated by using the channels customers preferred in each service situation. As the scale of the dependent variable moves from personal channel to impersonal channel, it can be argued that it also moves from offline to online. Locality and personal relations for example, has an effect that drives customers towards more personal channels, but as the channel becomes more personal, it usually "becomes" more offline. And the need for convenience guides customers towards impersonal channels, which are usually at the same time more online.

As the degree of human interaction increases, the degree of how online the service is decreases. This could also be called the degree of convenience. It is difficult to determine in reality how convenient or personal one channel is compared to others as they are in the end

subjective matters of opinion. Some might think that visiting an office to run insurance errands is in fact more convenient, because you do not have to perform the operations yourself. The common perception, although, is that face-to-face service is more personal than online self-service and at the same time less convenient. The other channels fall somewhere between those two on the scales of personal service and convenience, depending on what is considered convenient and personal.

This framework only describes the principal components and their effects individually. In reality customers have different perspectives and emphasis in all of them and probably many other factors not described in this research as well. The combination of all of these factors and how the customer responds to them is what determines the channel preference. The cluster analysis gives us an idea of how these factors “work together” as it describes different customer groups and their orientations towards the factors.

5.2 Conclusions

The primary goal of this research was to find out which factors influence consumer insurance customers’ channel preferences in a multichannel environment. In addition the goal was to investigate these factors and to find out to what extent they affect the channel preferences. The research was also supposed to answer whether these results could be used to group customers into clusters described by similar channel preference characteristics. The research was able to answer these questions, although limitations remain.

The theoretical background section of this thesis begun by introducing previous academic literature and theories about multichannel strategy and the importance of multichannel integration and CRM in general. Multichannel strategy in financial industry and the special characteristics of financial services were described next and the channel structure in insurance industry and what separates insurance services from other financial services were

also covered in the prefatory part of the literature review in order to give a good overview of the context of the research.

Chapter 2.2 went on to introduce research in the area of channel preferences and selection in general covering technology and channel adoption, trust formation and other frequent subjects in this domain. The focus was narrowed down to factors influencing channel preferences in insurance business and the research done in this area and in areas near enough to it from which ideas could be used in this research. The preliminary theoretical framework was drawn up from these aforementioned elements. In practice the framework introduced factors, that were previously in past academic researches proven to have effect on customer channel preferences in financial industry or influenced the adoption of a channel.

The empirical research was carried out by a quantitative questionnaire send to a sample of target company's customers. By a series of statement questions, either adopted from previous research or developed for this study, the purpose was to obtain numerically comparable data (Likert scale questions) to be assessed in the factor analysis to discover the underlying dimensions that drive customer channel preference. The analysis revealed six dimensions among the interrelated variables; 1) Locality & personal relations, 2) Trust in Internet, 3) Experience of branch office, 4) Experience of call center, 5) Convenience and 6) Self-reliance & privacy. The framework on customer preferences was limited to six factors according to these new results, although the content of these new dimensions did not differ considerably from the original nine factors.

From the dimensions discovered in factor analysis a regression analysis was conducted in order to answer the sub question of the research; to what extent do these factors influence the channel preferences. The regression analysis was used to determine how much of the variation in the dependent variable (degree of need for personal service) can be explained by the independent variables (principal component scores for each participant). The regression model was reasonably well specified and was able to significantly explain 48

percent of the variation. In other words, these dimensions found in the factor analysis account for roughly half of what influences customer channel preferences in this context.

Factor 2, Trust in Internet, was the single most influential dimension of the model. It has the most effect on the customer channel preferences and it negatively influences the need for personal service. It seems that strong belief that the Internet is a safe place to conduct business and familiarity with it increases the probability to seek impersonal online channels. Not far behind was Locality & Personal Relations, indicating that strong local identity and the need for personal relations significantly increase the likelihood of preferring personal channels. It was, of course, quite expected that the factor describing importance of social relationships would produce results that increase the likelihood of preference towards personal channels. The factor also included items that indicate strong local identity, which also seem to increase the need for personal service. Positive experiences of branch office have a positive influence on personal channel preference.

Convenience and Self Reliance & Privacy (factors five and six) were both found to have a statistically significant negative effect on personal channel preference indicating that strong need for convenience and high confidence in own skills and knowledge and the need to protect own privacy increase the likelihood to use more impersonal channels. The factor 4, Experience of Call Center, had the most neutral effect of the found dimensions. The standardized coefficient of the factor signals only slight negative effect towards the need for personal service. This was expected as call centers or contact centers can be considered to be somewhere in the middle at the degree of personality -scale. People that have positive opinions about this “in the middle” channel are not expected to have strong preferences either way on the degree of personality -scale.

This study, especially the factor and regression analysis, were loosely inspired by Albia's (2007) article on consumer channel choices in banking context. Some of the constructs were directly adapted from it and some were designed to support the study in this different context. In his article Albesa also displayed six factors that influence personal channel choice in consumer banking; social relationships, privacy, knowledge of the ATM,

convenience of the ATM, knowledge of Internet and convenience of Internet. This goes to show that at least the importance of social relationships (even though being quite obvious factor), need for privacy and convenience can be considered some what universal constructs that affect the personal channel preference in financial industry. Knowledge of a certain channel as a reinforcing factor of that channel's preference can also be described as a unifying finding between this research and the one conducted by Albesa. In this research knowledge is emphasized as an item in the trust in Internet factor.

The differences between these two researches come from the fact that the channels are different on some parts. Albesa also used confirmatory factor analysis to prove his hypotheses while in this research exploratory approach was used. This was done to leave room for the factors to take form by themselves rather than assigning certain items in them. The disadvantage of this decision is unfortunately the lack of comperativeness between this research and the previous one.

In order to discover whether these results from previous multivariate procedures could be used to identify and group customers into manageable clusters by their channel preference characteristics, a cluster analysis was conducted. In practice, the analysis was done by using K-means clustering using the factor scores from factor analysis as the clustering variables. The analysis produced four distinctive and statistically significant customer groups in which the distribution of cases was relatively even: 1) Non-Internet convenience seekers – a conflicted group as they distrust Internet, but seek convenience from their interaction channel, 2) Non-committed – customers that are not committed to local services or personal service and do not emphasize positive experiences in the offline channels, the only positive (even though quite slight) emphasis is on trust in Internet 3) Local advice and relation seekers – people that emphasized locality and personal services the most and lacked self-reliance and need for privacy and 4) Self-reliant Internet users – customers that can be described by high self-reliance and need for privacy and highest trust in Internet.

The results of the cluster analysis are of good quality when it comes to statistical significance, diversity and even distribution of cases. But what these results also show is

that the customers are driven by many forces when deciding on the preferred channel and that they are not always quite as consistent as one may hope in their channel preference characteristics. It would make the marketers' job a lot easier if the customers could simply be categorized by their channel preference characteristics as Internet users, telephone users or branch office customers. This, however, is not the case as the channel preference characteristics are somewhat conflicted as customers, for example, who emphasize local people and services and personal service don't necessarily underemphasize trust in Internet. In channel preferences it finally comes down to what dimensions are the most important ones for each individual customer and how these factors are fulfilled in each channel in their minds. With this said, there are things managers can do to respond to these changing and sometimes seemingly incoherent customer channel needs.

5.3 Managerial implications

The most obvious conclusion that can be drawn from this research is the fact, that the personal channel (contact person, or previously known service agent) is still by far the most preferred channel in all service situations (Table 4), but especially in situations, where the risk factor and the complexity of the situation is high. Contacting a previously known service agent, whether it is in person, by telephone or via email is expectedly the most preferred way. This emphasizes the customers' need for personal service and the need for some level of trust that is formed through repeated interaction with the same person when dealing with complex insurance products. This also underlines the fact that in those situations the channel (the actual medium) through which the contact is made loses importance. The preference is related to knowing the person serving you and the trust and familiarity created by interacting with this same person.

Aside from the preference towards the personal contact person, according to the channel preference results presented in chapter 4.1 it can also be argued that there still is value for customers in the branch office channel, even though the industry is getting more and more

digital and online. The most novel channels (chat and mobile self-service) are still quite low on the preference scale, which can either be explained by the lack of familiarity towards those channels (there is no chat option on the service provider's web site yet), which prohibits the adoption of them or the pure need for human interaction. If the company wants to offer these channels in the future and get the customers to adopt them some marketing efforts and education are definitely needed.

In this research a theoretical framework was introduced to describe the formation of customer channel preferences in consumer insurance context. The framework was revised upon the results obtained from the factor and regression analyses. The framework gives a description for the management about how customers channel preferences are influenced by different drivers or factors and how strong are the effects of single variables. What the managers can draw from this is conclusions on where to try to influence if they want to affect customers' channel preferences. If for example customer preference movement towards online services is desired, the most effective way to do this might be to increase the customers' trust and familiarity towards Internet service through education and guidance. All of the factors and their effects on channel preference displayed in the theoretical framework were proven to be statistically significant. It seems clear, that by improving customer perceptions in the desired way better channel utilization can be achieved.

One way to overcome the controversy of Internet being convenient, but not as personal as the traditional channels, is to try to create social presence online. The customers need social interaction because of the way trust is founded upon interaction between people (McKnight et. al, 2002) and trust is especially important in insurance services because of their special characteristics of complexity, long time commitment, high risk and other features listed in chapter 2.1.2. Social presence in an online environment means that there is a perception that there is personal, sociable and sensible human contact in the medium. Gefen and Straub (2004) argue that by embedding this social presence on web vendor's site it increases the customers' trust towards the vendors' integrity, predictability, ability and benevolence.

In addition to the framework describing the channel preference factors, a customer clustering was conducted in order to give a segmentation tool for the managers to get a view of how these customers are distributed based on their channel preference characteristics. This can be useful when deciding on different channel strategies within the company. Such segmentation can also be used to target marketing and educating efforts to get the customers to utilize the channel variety better. This study reflects a time of change and controversial customer needs in the way companies and customers interact. It is partly due to the emergence of new communication and information technologies, but one should not only focus on the customer adoption of new mediums by the price of alienating those customers that need the reassurance and social relationship offered by social interaction. The company should respond to this environment with an integrated multichannel strategy that facilitates customer channel migration and allows them to use which ever channel they see suited for their current interaction needs. With this strategy the company can increase the customer overall satisfaction and in return create more and easier points of purchases for customers, and increase the customer loyalty. The company should as well improve its CRM procedures by continuously investigating the customer channel preferences and motives behind them to keep up with the ever-changing environment.

5.4 Limitations and further research

Some of the limitations in this research may be related to the way the questionnaires were distributed to customers. A web questionnaire was used and it was delivered via email. This might skew the results if customers that use the Internet are overly represented in this study. The best way of gathering the data might have been to evenly distribute these questionnaires through all channels, but due to time constraints the decision was made to use only the web form. All the customers for this study were randomly gathered from the target company's data base. Many of these customers were so called "cold customers" that haven't contacted the company in a long time. This is probably one reason why the

response rate for the questionnaire was so low (6%). Luckily, this was anticipated and approximately 12 000 web forms were sent so that the size of the sample would still be adequate (n=714) for these results to be generalizable and statistically significant. If the questionnaire would have been sent to customers that have recently been in contact with the company, it might have as well skewed the results. We would not have had the full representation of the clientele and the results might have favored the online channel as heavy users of these kinds of services tend to move online more easily (Hahn & Kim, 2009).

A limitation for this study was also the lack of previous similar empirical research in this context and the absence of tested scales that the results could have been compared with. Future research may be needed to confirm these scales used in this study. This study is not totally comprehensive as there sure will be more factors influencing customer channel choice. It would be interesting to investigate other factors that were not found in this study to have a significant effect. The research was not able to link the demographic factors other than rough age groups and the original company of customer to the customer groups found in cluster analysis, which might be useful information in the future. Also this study focused only on the consumer insurance customers in Finland. A wider or different context for a similar study might be in order. As mentioned earlier, the technology keeps evolving at a rapid pace and continuous research in this area is needed both from the companies and the academics in order to keep in track with the changing technological environment as well as the varying customer needs and preferences.

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The use of Internet for the past 3 months by age and gender 2012

	16-24	25-34	35-44	45-54	55-64	65-74	Male	Female	Total
	<i>Percentage of population</i>								
Sending/receiving e-mail	96	96	93	85	66	47	80	81	81
Banking	75	98	96	92	74	51	81	83	82
Searching information related to products/services	90	95	93	89	70	46	82	80	81
Reading online articles	97	94	89	84	67	47	82	78	80
Browsing travel sites	55	73	72	72	22	37	60	63	62
Booking doctor's appointment	18	28	31	36	24	16	20	31	26
Chatting online (discussion forums, social media etc.)	88	80	58	39	22	10	47	51	49
Browsing social media	86	80	58	39	22	10	44	53	49
Listening to radio or watching TV	72	70	60	50	37	26	53	52	52
Listening/downloading music	89	78	58	42	21	13	52	47	50
Reading blogs	56	55	43	35	25	13	34	42	38
Searching for education	59	47	38	35	15	7	27	39	33
Uploading own texts, pictures, or other material for others to use	56	46	35	25	14	9	30	31	30
Searching for jobs	55	43	33	24	6	0	24	29	27
Playing/downloading games	50	38	28	18	13	12	31	21	26
Purchasing used products	24	36	35	27	15	5	29	19	24
Watching/downloading movies	54	37	17	14	6	3	25	17	21
Selling used products	18	27	29	23	12	7	25	14	19
Internet calls / video calls	34	28	22	16	14	11	22	20	21
Online courses	34	23	13	13	6	3	14	16	15
Online gaming	31	13	9	2	2	0	14	4	9
Creating websites or writing blogs	13	11	9	7	3	1	7	8	7

Source: The use of information and communication technology -study, Statistics Finland 2012

Suomen virallinen tilasto (SVT): Väestön tieto- ja viestintätekniikan käyttö [verkkajulkaisu]. ISSN=1799-3504. 2012, Liitetaulukko 12. Internetin käyttötarkoitukset 3 kuukauden aikana iän ja sukupuolen mukaan 2012, %-osuus väestöstä . Helsinki: Tilastokeskus [viitattu: 11.9.2013].
Saantitapa: http://www.tilastokeskus.fi/til/sutivi/2012/sutivi_2012_2012-11-07_tau_012_fi.html

Appendix A: Spss output data

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.844
Bartlett's Test of Sphericity	
Approx. Chi-Square	7668.079
df	300
Sig.	.000

Regression analysis with control variables and collienarity statistics

	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
F1 Locality & Personal Relations	1,682	0,115	0,417	14,666	0	0,9	1,112	
F2 Trust In Internet	-1,779	0,112	-0,441	-15,859	0	0,94	1,063	
F3 Experience of Branch Office	0,888	0,11	0,22	8,044	0	0,97	1,031	
F4 Experience of Call Center	-0,221	0,111	-0,055	-1,996	0,046	0,968	1,033	
F5 Convenience	-0,667	0,114	-0,166	-5,877	0	0,918	1,09	
F6 Self-Reliance & Privacy	-0,515	0,11	-0,128	-4,692	0	0,981	1,019	
Control variables								
Original company	0,305	0,227	0,037	1,342	0,18	0,946	1,057	
Gender	-0,211	0,235	-0,026	-0,897	0,37	0,864	1,157	
Age	-0,005	0,01	-0,018	-0,51	0,61	0,616	1,623	
Area of residence	-0,035	0,019	-0,05	-1,79	0,074	0,922	1,084	
Education	-0,048	0,106	-0,014	-0,451	0,652	0,794	1,259	
Occupation	-0,026	0,053	-0,016	-0,486	0,627	0,681	1,468	
Income	-0,069	0,087	-0,026	-0,8	0,424	0,69	1,449	

Dependent Variable: Degree of need for personal service

Distances between final cluster centers

Cluster	1	2	3	4
1		2,20	2,10	2,20
2	2,20		1,98	2,16
3	2,10	1,98		1,86
4	2,20	2,16	1,86	

Appendix B: Web questionnaire

Background information from customer databases:

Original company

- 1
- 2

Gender

- 1 Male
- 2 Female

Age

Area of residence

Education

- Primary School Education
- Upper Secondary School Education
- Vocational Education
- Baccalaurate
- Master's Degree
- PhD

Occupation

- Student
- Worker
- Official
- Expert
- Manager
- Director
- Entrepreneur
- Pensioner
- Unemployed

Monthly income

- 0-999 €
- 1 000 - 1 999 €
- 2 000 - 2 999 €
- 3 000 - 3 999 €
- 4 000 - 4 999 €
- 5 000 - 5 999 €
- 6 000 - €

Questions on the survey:

Evaluate the following questions on a scale of 1 - 10, where:

1 = Completely disagree

10 = Completely agree

- 1) Personal relationships are important when conducting insurance business
- 2) The people at the counter are nice and attentive
- 3) Relating to people is important when conducting insurance business
- 4) I get good advice at the branch office
- 5) I get better service at the branch office than other channels
- 6) I strictly guard my privacy when conducting insurance errands
- 7) The person serving me shouldn't know my operations
- 8) I don't need advice when conducting my insurance business
- 9) I prefer to handle my insurance business on my own
- 10) I value convenience in insurance errands
- 11) I get good service over the phone
- 12) I want to be talking to a real person when dealing with insurance issues

- 13) I get good advice over the phone
- 14) I am used to running errands over the Internet
- 15) I often use Internet banking
- 16) I get better service thanks to the Internet
- 17) It is important to be able to perform insurance operations outside of office hours
- 18) I appreciate not having to wait in line
- 19) I appreciate that I can conduct my insurance business over the Internet from anywhere
- 20) I trust my insurance company
- 21) I believe the Internet is a safe place to conduct my business
- 22) I prefer conducting my business with local people
- 23) I have a strong local identity
- 24) I feel it is important to support local businesses
- 25) I think Internet is a safe place for shopping

Which of the following contacting options have you used?

- Visit agent you know
- Call agent you know
- Email agent you know
- Visit office
- Call office
- Email office
- Call contact center
- Fill webform
- Online selfservice
- Mobile selfservice
- Message in online service
- Chat in online service

Which of the following contacting channels would you prefer in each service situation?

Evaluate the options based on which you would most and least prefer.

10 = would prefer the most

1 = would prefer the least

Service situations

1) Checking or changing your own insurance or contract information

(e.g. checking the coverage of insurance or updating contract information)

2) Obtaining information about insurances (e.g. prices or coverage)

3) Buying a single insurance (e.g. travel insurance)

4) Fixing an error or confusion in billing

5) Mapping your entire insurance needs / tendering all insurances

Channel options

1) Visit agent you know

2) Call agent you know

3) Email agent you know

4) Visit office

5) Call office

6) Email office

7) Call contact center

8) Fill webform

9) Online selfservice

10) Mobile selfservice

11) Message in online service

12) Chat in online service