



KATARIINA MÄENPÄÄ

# User Perceptions of Internet Banking



ACADEMIC DISSERTATION

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on April 9th, 2010, at 12 o'clock.

UNIVERSITY OF TAMPERE

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*Acta Universitatis Tamperensis 1512*  
*Tampere University Press*  
*Tampere 2010*

ACADEMIC DISSERTATION  
University of Tampere  
Department of Management Studies  
Finland

Distribution  
Bookshop TAJU  
P.O. Box 617  
33014 University of Tampere  
Finland

Tel. +358 40 190 9800  
Fax +358 3 3551 7685  
taju@uta.fi  
www.uta.fi/taju  
<http://granum.uta.fi>

Cover design by  
Juha Siro

Layout  
Sirpa Randell

Acta Universitatis Tamperensis 1512  
ISBN 978-951-44-8044-7 (print)  
ISSN-L 1455-1616  
ISSN 1455-1616

Acta Electronica Universitatis Tamperensis 951  
ISBN 978-951-44-8045-4 (pdf)  
ISSN 1456-954X  
<http://acta.uta.fi>

Tampereen Yliopistopaino Oy – Juvenes Print  
Tampere 2010

# ACKNOWLEDGEMENTS

This dissertation saw daylight because I had the privilege of being supported by a number of people. Now it is time to express my deepest gratitude to them. First and foremost, without Professor Hannu Kuusela, entering into the doctoral studies would not have even crossed my mind. He was the one who suggested doctoral studies after the completion of my Master's degree. Besides his intellectual mentoring, I am grateful for his guidance and patience during this process. As my supervisor he has seen the ups and downs, and challenged me to push forward. My sincerest thanks.

I have had the honour of having Professor Heikki Karjaluoto and Professor Mark T. Spence as my pre-examiners. Their comments and advice helped me to improve and refine my draft into an accurate dissertation. In particular, I want to thank Heikki Karjaluoto for acting as the opponent in my defence. Further, I am thankful to Professor Antti Kanto for his priceless contribution in my dissertation regarding the statistics; he knew how to make the monastic Latin of statistics comprehensible to a novice without forgetting the twinkle of humour in his eyes. I am also privileged to have Professor Sudhir H. Kale and Professor Pallab Paul as the co-authors in my articles. Without their insightful comments and finishing touches my articles and myself would have not survived through the academic review process. Professor P.K. Kannan and Professor Pekka Tuominen also deserve to be acknowledged for their valuable assistance along the way. During the earlier years of my academic endeavour, Professor Tuula Mittilä and Professor Emeritus Uolevi Lehtinen did their share in planting the seeds of academic curiosity into an innocent mind, and it indeed grew into a fine bloom.

During my studies I have had a pleasure to share a friendship with the fellow candidates. Completing this job would have been so much more difficult and bleak without you; you quite often made it even joyful. Dr. Nina Mesiranta, Timo Rintamäki, Dr. Aki Ahonen, Tapani Laitinen, Dr. Maria Antikainen, Dr. Minttu Lampinen, Dr. Richard Windischhofer, Dr. Helena Lamberg, Dr. Heli Paavola and Hannu Saarijärvi, I want to thank you for walking this road with me. Special thanks go to Elina Leppälä who did not count the hours nor mind the time of day when

correcting my language. A word of thanks is also due to those who have commented and given advice on my work in various seminars, workshops, and conferences.

Finnish Graduate School of Marketing (FINNMARK) played a crucial role during the first three years of my post-graduate career. They provided me the opportunity to concentrate on my doctoral studies and on working with the articles without financial concerns. I have been privileged to receive financial support also from Tampereen Kauppayhdistyksen säätiö, Finnish Cultural Foundation Päijät-Häme Regional Fund, Jenny and Antti Wihuri Foundation, OP-Group Research Foundation, Foundation for Economic Education, Tampere Chamber of Commerce, Tampereen Liikesivistyssäätiön rahasto and Tampereen Mainosyhdistyksen säätiö. Finally, I wish to take a deep bow to my new place of domicile, Hollola, and particularly to the Library of Hollola that has provided me a room for working during last winter.

It is an undeniable fact that the most important support comes from the people closest to me. My dearest friends and relatives, I want to thank you for your encouragement, empathy and just being there for me. Siiri, you have turned out to be an irreplaceable help in so many ways. Thanks to you I have maintained my mental health during last winter. My parents, Riitta and Erkki, I am obliged to you for your endless support and confidence in me. You have raised me to have faith in myself and to work for what I believe in. Thanks to you, I am what I am. My dear little sister Elina: thank you for being the voice of common sense when I have been about to drift too far into academic thoughts. Her children, lovely Emma and Eemeli, have participated very successfully in keeping Auntie in the real world. I want to thank you all for giving the reason to laugh after a hard day at work. Finally, I wish to thank my nearest and dearest ones: my husband, Toni, and our children, Peppi, Riku, Kalle and Veeti to whom I want to dedicate this dissertation. You have shown me what is truly important and valuable in life. Every morning you remind me of how blessed I am.

In Rantaonnella, March 1st, 2010

Katariina Mäenpää

# ABSTRACT

The internet and services provided via the channel have become a natural part of consumers' life in the past few decades and are nowadays quite often almost taken for granted in developed countries, soon as well in developing countries. Finland has been in the forefront on internet banking due to the relatively high level of technological development and the structural changes in banking sector occurring nearly three decades ago. The economical recession in the early years of 1990's forced banks to cut down their dense net of branch banking offices, while new delivery channel offered a cost effective way to provide necessary banking services. Consumers were advised very strongly to access into the world of electronic banking and the penetration rate has been on the top of the world since that. Thus, Finnish users were excellent source for empirical examination.

The overall purpose of this research was to examine user perceptions of internet banking services and define user segments on the basis of the perceptions. The underlying rationale was to broaden the way to see internet banking, since the branch in general seemed to imprisoned by very utilitarian by nature. However, the academic research has witnessed tremendous change in the field of consumer behaviour as the experiential dimensions of consumption and the hedonic consumer orientation have gained attention. Thus, altogether three academically interesting pairs of concepts that exhibit tension between each other were identified from the literature. These pairs, i.e. utilitarian vs. experiential service features, adoption vs. usage experience (familiarity), and more hedonic vs. less hedonic consumption orientation, comprised the base for the framework of the dissertation. Each of these concept pairs were analysed in depth in separate articles.

As a result of this research, based to the analyses of 300 active user of internet banking, this dissertation contributes to various theoretical discussions. Firstly, it participates in the significant research stream of self-service technologies. In this rather utilitarian service context, the significance of experiential features was evaluated, social dimension in the form of status were acknowledged and the need to reconceptualised convenience was identified. Secondly, contribution is gained to the academic discussion of consumer knowledge. Familiarity was examined as a

consumer-related fact and consumption-specific characteristics of a user, which as such, provided suitable base for segmentation. Interesting matter was revealed when moderately familiar users gained the lowest values thus producing U-shaped form of user perceptions. Thirdly, findings relating to customer orientation and experiential dimensions in internet banking affirm, enlighten and structure the views presented a quarter of a century ago in internet banking context. Hedonic consumption orientation was attested as a powerful consumer characteristic distinguishing users to more and less hedonic segments. To sum up the results, the research provides new insights on the principles on segmentation. The innovative use of essential and relative segmentation bases still holds a strong position in marketing thought and marketing strategy. This research opens many implication possibilities also for managerial purposes.

*Key words:* Internet banking, Perception, Hedonic, Utilitarian, E-services, Segmentation, Consumer behaviour.

# TIIVISTELMÄ

Internet ja sen tarjoamat palvelut ovat viimeisten vuosikymmenten aikana tulleet niin luontevaksi osaksi kuluttajien arkipäivää, että niitä pidetään lähes itsestään selvyyksinä. Näin on erityisesti kehittyneissä maissa, eivätkä kehittyvät maat seuraa kovinkaan kaukana perässä. Suomi on kulkenut verkkopankkipalvelujen eturivissä suhteellisen korkean teknologisen kehityksensä sekä kolmisenkymmentä vuotta sitten pankkisektorilla tapahtuneiden rakenteellisten muutosten vuoksi. 1990-luvun alun laman seurauksena pankit joutuivat karsimaan tiheää konttoriverkostoaan ja tällöin uusi elektroninen jakelukanava osoittautui kustannustehokkaaksi tavaksi tarjota pankkipalveluja. Kuluttajia opastettiin verkossa tapahtuvaan pankkiasiointiin ja siitä lähtien palvelujen penetraatioaste on ollut Suomessa maailman huippua. Tästä syystä suomalaiset verkkopankkipalvelujen käyttäjät tarjoavat erinomaisen aineiston tämän tutkimuksen suorittamiseksi.

Tämän tutkimuksen tarkoituksena oli tarkastella käyttäjien näkemyksiä verkkopankkipalveluista ja määrittää käyttäjäsegmenttejä näiden näkemysten perusteella. Taustavaikuttimena toimi pyrkimys laajentaa tapaa nähdä verkkopankkipalvelut, sillä toimiala mielletään pääsääntöisesti hyvin käytännölliseksi, utilitarististen painotusten alaksi. Kuitenkin akateeminen tutkimus on kokenut melkoisen muutoksen kuluttajakäyttäjytymisen osalta, kun elämyksellinen kuluttaminen ja mielihyvähakuinen, hedonistinen kuluttajaorientaatio ovat keränneet huomiota. Tästä syystä kaikkiaan kolme akateemisesti kiinnostavaa käsiteparia poimittiin alan kirjallisuudesta. Nämä käsiteparit – utilitaristiset vs. elämykselliset palveluominaisuudet, omaksuminen vs. käyttökokemus (tuttuus), sekä mielihyvähakuinen vs. vähemmän mielihyvähakuinen kulutustaipumus – muodostivat pohjan tämän väitöskirjan viitekehykselle, ja jokaiseen näistä paneuduttiin perusteellisesti omassa osajulkaisussaan.

Tutkimuksen tulokset perustuvat 300 aktiivisen verkkopankkipalvelujen käyttäjän analyysiin, jotka osallistuvat ja tuottavat uutta tietoa useaan teoreettiseen keskusteluun. Merkittävän, itsepalveluteknologiaa käsittelevän tutkimussuuntauksen utilitaristista lähestymistapaa ravisteltiin tarkastelemalla elämyksellisiä ominaisuuksia tässä ympäristössä; palvelun sosiaalinen ulottuvuus tuli yllättäen esille sta-



tuksen muodossa sekä sen lisäksi mukavuus-käsite verkkoympäristössä osoittautui kaipaavan uudelleenmäärittelyä. Tämän lisäksi kontribuutiota tuotetaan kuluttajan tietämystä käsittelevään kirjallisuuteen. Tuttuutta tarkasteltiin kuluttajaan liittyvänä mitattavana tosiseikkana sekä kulutuskeskeisenä käyttäjän ominaisuutena, jotka tarjoavat mainion segmentointiperustan. Mielenkiintoinen yksityiskohta havaittiin, kun palvelun kanssa keskivertotutut käyttäjät osoittautuivat verkkopalveluja vähiten arvostaviksi käyttäjiksi muutamien palvelun ulottuvuuksien kohdalla. Näin käyttäjien näkemykset muodostivat U-muotoisen jakauman. Käyttäjän kulutustai-pumukseen sekä elämyksellisiin ulottuvuuksiin liittyvät löydökset vahvistivat, va-laisivat sekä jäsensivät näitä neljännesvuosisata esitettyjä näkemyksiä nimenomaan verkkopankkiympäristössä. Mielihyvähakuinen kulutustai-pumus osoittautui mer-kittäväksi kuluttajan ominaispiirteeksi, joka jakoi käyttäjät hedonistiseen sekä ei niin hedonistiseen segmenttiin. Kaiken kaikkiaan tämä tutkimus tarjoaa uusia nä-kökulmia segmentoinnin periaatteisiin: segmentoinnin vaikuttavien perusteiden uudenlainen käyttö vahvistaa segmentoinnin asemaa niin markkinointiajattelussa kuin markkinointistrategioissakin. Tämän väitöskirjan tulokset avaavat myös mo-nia käytännön sovellutusmahdollisuuksia.

*Avainsanat:* Internet-pankkipalvelut, Verkkopankkipalvelut, Näkemys, Perseptio, Hedonistinen, Utilitaristinen, E-palvelut, Segmentointi, Kulutuskäyttäytyminen

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## PART II PUBLICATIONS

- Article 1    Katariina Mäenpää: Clustering the consumers on the basis of their perceptions of the Internet bank services. *Internet Research*, 16 (3), 304–322.
- Article 2    Katariina Mäenpää, Sudhir H. Kale, Nina Mesiranta, Hannu Kuusela: Consumer perceptions of Internet banking in Finland: the moderating role of familiarity. *Journal of Retailing and Consumer Services*, 15 (4), 266–276.
- Article 3    Katariina Mäenpää, Antti Kanto, Hannu Kuusela, Pallab Paul: More hedonic versus less hedonic consumption behaviour in advanced Internet bank services. *Journal of Financial Services Marketing*, 11 (1), 4–16.

PART I  
COMPILATION



# 1 INTRODUCTION

## 1.1 Research context

Recent advances in technology and changes in consumer behaviour have paved the way for different varieties of self-services. This trend has caused fundamental transformations in interaction between companies and customers (Dabholkar et al., 2003; Parasuraman and Zinkhan, 2002; Bauer et al., 2005). The proliferation of these self-service technologies (SST) and their usage is well acknowledged in the service industry, where service providers are increasingly urged to invest in technology to survive in the current operative environment (Zhang and Prybutok, 2005; Bauer et al., 2005). In its broad meaning, the concept of SST encompasses all technology-assisted services produced and consumed in a technological interface without physical contact to service personnel (Dapholkar, 1996; Meuter et al., 2000; Rust and Kannan, 2002; Curran et al., 2003; Chen, 2005). Electronic service delivery has proved to be a facilitator of business success. This topic area has attracted increased academic and practitioner interest (e.g. Parasuraman and Colby, 2001; Zeithaml et al., 2002; Dabholkar and Bagozzi, 2002; Curran et al., 2003; Zhang and Prybutok, 2005; Lee and Lin, 2005; Bauer et al., 2005).

The internet is probably the most common advocate of SST, and since its establishment, it has provided a fruitful breeding ground for self-services. According to Heinonen and Stradvik (2005), the high potential of interactivity and flexibility of the medium, in terms of accessibility (where) and availability (when) of services, are its indisputable advantages. Due to the surge in the use of internet, services offered by the medium, i.e. e-services, have become the determinants of success or failure in the current electronic age (Yang et al., 2003). In the literature, e-service, or the e-service experience, has been defined in several ways. The definitions are fairly alike varying from “web-based service” (Reynolds, 2000), “the role of service in cyberspace” (Rust and Lemon, 2001), “interactive services that are delivered on the internet” (Boyer et al., 2002), to “interactive information service” (Ghosh et al., 2004), to name a few. In e-service, customers are involved in the service delivery process. Therefore, the service consumption is characterized by a high degree of customer involvement as well as customer interaction (c.f. Rowley, 2006). Thus, the

decision to conceptualise the e-service experience as a self-service experience is well-grounded (Dabholkar, 2000; Sara, 2000; Meuter et al., 2000; Zhu et al., 2002).

This dissertation concentrates on internet banking, i.e. e-services, which are predominantly considered as self-services. The importance of the internet and its self-service applications in today's competitive and increasingly global banking environment have been widely acknowledged, and a growing body of literature has emerged on various aspects of internet banking (e.g. Bauer and Colgan, 2001; Hughes, 2001; Li, 2001; Kardaras and Papathanassiou, 2001; Yakhlef, 2001; Boss et al., 2000). Reviewing the recent research in the area, Sayar and Wolfe (2007) analysed the literature from two viewpoints; customer perspective and provider perspective. Additionally, Akinçi et al. (2004) identified four interrelated areas of interest such as retail banking services, distribution channels for these services, consumers' attitudes towards and adoption of internet banking, as well as banks' and bank managers' perceptions of and approach to internet banking. This study concentrates on user perceptions of internet banking, thus the customer-oriented approach is the emphasised viewpoint.

In internet banking, consumers access their banking account to perform banking actions over the internet (Sathye, 1999; Jayawardhena, 2004). In its simplest form, internet banking is a web page containing basic information about banking products and services, whereas more developed sites provide several activities such as accessing accounts, transferring funds, and buying financial products or services online (e.g. Sathye, 1999; Daniel, 1999; Tan and Teo, 2000; Akinçi et al., 2004; Sayar and Wolfe, 2007). The extent of advanced internet banking services today includes all four classes of banking services, i.e. current account, insurance-based, credit-based and investment-based services (Howcroft et al., 2002). Furthermore, Centeno (2004) has added three classes to the former list: other financial products, third party services and convenience products. In the context of this study, internet banking services encompass the full scale of financial services with additional services provided only on the internet, illustrating that Finnish internet banking services have indisputably attained the highest level of sophistication.

The adoption of internet banking services, user satisfaction with the services as well as perceived service quality, have been found as intertwined and interdependent constructs. If customers are satisfied with the service quality, they are more willing to adopt the services as well as continue their use. (c.f. Jun and Cai, 2001; Polatoglu and Ekin, 2001; Zhu et al., 2002; Jayawardhena, 2004.) Service quality factors, such as efficiency, security, reliability, assurance and responsiveness, are the dimensions most often referred to as influencing users' evaluation of internet banking services.

They are seen to improve user satisfaction with respect to the online aspects of service quality (e.g. Sathye, 1999; Polatoglu and Ekin, 2001; Liao and Cheung, 2002; Karjaluoto et al., 2002; Gerrard and Cunningham, 2003; Sohail and Shaikh, 2008).

When it comes to the future success and continuity of internet banking, perceived customer value will play a vital role in influencing continued interaction, although perceived service quality, perceived risk, and user satisfaction are important predictors of continued interaction (Shamdasani et al., 2008). Also, the level and nature of customer participation (Broderick and Vachirapornpuk, 2002), enjoyment (Bauer et al., 2005; Shamdasani et al., 2008) as well as personalisation and entertainment (Bauer et al., 2005) have a significant impact on service quality perceptions as well as on the quality of the service experience. Because customers evaluate services on the basis of their perceptions of the total service experience (Bateson, 1995), all these dimensions must be taken into consideration for future service development. Since the Finnish internet banking services represent the highest level of sophistication regarding the provided services, it is relevant to assess the variety of service features and deepen the understanding of current customers to be able to meet the requirements of future customers.

## 1.2 The purpose of the study

In this doctoral dissertation, there are altogether three pairs of concepts that exhibit tension between each other, and each of these pairs is examined more specifically in a separate publication. The overall purpose of this research is to examine user perceptions of internet banking services and to define user segments on the basis of the perceptions. The dissertation consists of three articles. Each of these partial publications takes a different approach to the issue, and thus, has its own respective research questions. Here are the sub-questions of the dissertation:

Article I: What kind of clusters can be identified on the basis of user perceptions of internet banking services?

In order to answer this question, seven dimensions of internet bank services are generated. Further, user clusters are identified on the basis of user perceptions of suggested dimensions and the characteristics of these clusters are examined. The article also provides an introduction to the principles of segmentation that form the underlying foundation for the dissertation. The focus is on the first pair of concepts: utilitarian vs. experiential view. Banking, and internet banking accordingly, is



considered very utilitarian by nature (cf. Lassar et al., 2005), but here, a broader view is adopted in which the experiential features are taken into account. These dimensions represent the service setting also in Article II and Article III in which the theme is followed up and deepened.

Article II: How do users with differing levels of familiarity perceive the dimensions of internet banking services?

This article investigates the moderating role of familiarity on user perceptions of dimensions of internet banking services. It also analyses whether there are differences in the extent of used internet banking services between the user groups with different amounts of familiarity, and whether the differing levels of familiarity are related to differences in consumer demographics. The second pair with research tension is adoption vs. usage experience (familiarity). As the adoption of internet banking has gained a relatively impressive amount of academic interest, the actual users of the services have almost been neglected. Thus, this article concentrates on the currently active users of internet banking and the effect of growing familiarity on user perceptions by encompassing low-familiar, moderately familiar and highly familiar users.

Article III: How do users with more hedonic and less hedonic consumption tendency perceive dimensions of internet banking services?

This article goes deeper into the experiential view by exploring the effect of users' consumption tendency in a utilitarian service context. In other words, the focal point is turned from the service setting (Article I) to the user of the services and the pair of constructs with research tension is more hedonic vs. less hedonic. The aim is to establish whether there are distinct groups of more hedonic and less hedonic users in the internet banking context, and if yes, to analyse how their perceptions of internet banking services differ.

Internet banking is becoming the dominant channel in retail banking (Wan et al., 2005). This is due to the fact that the drivers of usage are overcoming the inhibitors in influencing the rate of adopters (Bradley and Steward, 2002). Internet banking is no longer a competitive advantage but a competitive necessity for banks (Gan et al., 2006; Yiu et al., 2007). As the user base of internet banking surpassed 100 million, competing for customers is more intense than ever and consumer behaviour is more diverse and inconsistent, it is arguable to expand the view and introduce new approaches. Thus, this research aspires to increase the understanding of consumers

by examining their perceptions in a utilitarian service context in order to provide valuable knowledge of consumers' perceptions of various service aspects and to suggest guidelines for practical implementation. Perceived ease of use, perceived usefulness and perceived service quality have been assessed in the internet banking adoption process. However, previous research on internet banking has not fully and thoroughly addressed the characteristics and perceptions of existing internet banking users.

### 1.3 Outline of the study

The objective of the research is to increase understanding, i.e. to examine how users perceive internet banking services. The empirical context is a utilitarian e-service environment with hedonistic and experiential aspects. The dissertation consists of two parts. The first part establishes the compilation of motivation for the study, its theoretical backgrounds and methodological choices as well as represents the summaries of articles. Part I ends with the discussion and conclusions of the research. The second part of the dissertation is comprised of three articles addressing three different viewpoints to user perceptions. The outline of the dissertation is illustrated in the following table.

**TABLE 1.** The outline of this dissertation

<b>USER PERCEPTIONS OF INTERNET BANKING</b>	
<b>PART I. COMPILATION</b>	
<b>Chapter I.</b>	Introduction
<b>Chapter II.</b>	Theoretical background and framework of the research
<b>Chapter III.</b>	Methodology of the study
<b>Chapter IV.</b>	Summary of the original articles
<b>Chapter V.</b>	Discussion and Conclusions
<b>PART II. PUBLICATIONS</b>	
<b>Article I.</b>	Clustering the consumers on the basis of their perceptions of the Internet bank services
<b>Article II.</b>	Consumer perceptions of Internet banking in Finland: the moderating role of familiarity
<b>Article III.</b>	More hedonic versus less hedonic consumption behaviour in advanced Internet bank services

The content of this dissertation is organised as follows:

Part I: Chapter I, Introduction, presents the empirical context of the research by reviewing relevant literature. The concepts of e-service, internet banking and internet banking services are delineated. The purpose of the study and the sub-questions of the articles are stated. Chapter II discusses the theoretical backgrounds of the study. The concept of perception is examined from psychological, social psychological and consumer behaviour points of view; the segmentation approach is outlined and the concepts of familiarity and hedonic-orientation, as forms of user characteristics, are introduced. Finally, the framework for the study is formulated. In Chapter III methodological decisions are justified and the actual research process as well as empirical data are described. Chapter IV consists of summaries of the original articles. Chapter V summarises the outcomes, discusses the results and concludes the argumentation. Contributions of each article are reflected and summarised, the whole research process is evaluated and discussed. Finally, managerial implications and suggestions for future research are presented.

Part II: The separate publications report the processes and outcomes of three individual analyses from different theoretical perspectives. The first article consists of a statistic cluster analysis of consumers and their perceptions of internet banking services. The second article focuses on extending a traditional consumer characteristic, i.e. familiarity, and its effect on consumers' perceptions of internet banking. The third article describes a formulation of a measure for the experiential consumer and the effect of this consumer characteristic on perceptions of internet banking.

## 2 THEORETICAL BACKGROUND

### 2.1 Conceptualising perception

The starting point of any study is the discovery of an interesting phenomenon that deserves further examination. In this study, the phenomenon of interest is user perceptions of internet banking services. Perception and perceptions as such can be, and actually should be, approached from a multidisciplinary perspective. Therefore, the roots of this study are found in the fields of psychology and social psychology. Other cognitive sciences, like philosophy, biology, neuroscience, artificial intelligence, linguistics and anthropology have also studied perception, but their contributions are outside the scope of this study. Thus, the review of the theoretical background begins with the conceptualisation of perception from psychological and social psychological points of view. They are followed by consumer behavioural research related to perceptions. Studies related to perceptions in internet banking will also be summarised.

#### 2.1.1 Perception from psychological and social psychological perspectives

In tracing the roots of perception it is imperative to turn to psychology, since it provides a fundamental analysis and conception on perception. In cognitive psychology, the focus lies in psychological experience. The individual is seen as an active information processor who consciously learns, perceives, thinks and memorizes aspects and issues of the surrounding world (Price et al., 1982). Accordingly, Roth (1986, 81) provides a cognitive definition of perception: “The term perception refers to the means by which information acquired from the environment via the sense organs is transformed into experiences of objects, events, sounds, tastes, etc.” Thus, perception stands for processing specifically sensory information instead of including the thoughts and behaviours resulting from detected stimulus (Stuart-Hamilton, 1996).

Although perceptions are received through all five senses, visual perceptions are the foremost-investigated area (Atkinson et al. 2000; Anderson, 1995), and it is strongly intertwined with action (Gold, 2004). Perception has been studied as a

source of knowledge or information, as well as a mental phenomenon in its own right, meaning pertaining to the awareness of something (Hatfield, 2004). Whereas exponents of the biological approach break perception into actions between ten billion nerve cells, Gestalt theorists advocate that perceptual experiences are combinations of patterns formed by stimuli and organization of experiences indicating that psychological experience is greater than the sum of its parts (Price et al., 1982). The cognitive perspective advances that legacy by analysing mental processes. Here, the focus lies on specific behaviours and interpreting them in terms of their underlying mental processes (Atkinson et al., 2000). On the other hand, the humanistic/phenomenological view provides an extended outlook to the issue by opposing the reduction of behaviour to mechanistic processes. It is essential to treat the human being as a unique whole and to understand human experience in terms of individualised perception, subjective interpretation of external events, and personal goals (Price et al., 1982; Atkinson et al., 2000). When assessing users and their perceptions in a certain service environment, such as internet banking, it is natural to adopt a comprehensive and extensive way to conceptualise perception.

Social sciences contribute to the conceptualisation of perception by placing emphasis on the social dimensions. Social psychology studies psychological processes in the social context. According to Augoustinos and Walker (2001), perception is ordered, reasonably consistent and shared, i.e. social. It reflects the interplay between what is out there and what the perceiver brings to it (Fiske and Taylor, 1991). It can be reasoned that the perception of objects depends on their attributes, the context in which they are found, the manner in which it is perceived, and the characteristics of the perceiver (Brunswik, 1956). However, Heider (1944; 1958) has argued that although object perception and person perception have much in common, the difference between the two is that people cause actions by having intentions, abilities, desires and sentiments; by being aware of being perceived and being perceivers as well. Bem's (1972) theory of self-perception argues that people know their own internal states in part by inferring them to the observations of their behaviour and the context in which it occurs. These are two examples of attribution theory, which is defined as a collection of theories concerning how a social perceiver uses information to arrive at causal explanations for events (Fiske and Taylor, 1991). Gibsonian, i.e. ecological, approach to social perception suggests that perception is direct: seeing and hearing leads straight to intrinsic behavioural possibilities (Fiske and Taylor, 1991). This is a result of the perceiver's own history of perceptual experiences. This research strives to examine whether the users acknowledge the social aspects in internet banking, and more broadly, in the context of STT.

## 2.1.2 Perception from the consumer behaviour perspective

Consumer behaviour as a discipline has adopted a lot from psychology; the conceptualisation of perception is no exception. Consumer behaviour as an entity is characterised by four dimensions of effect: cultural, social, personal and psychological. Here, perception is situated in the psychological dimension with motivation, learning, beliefs and attitudes (Armstrong and Kotler, 2000). Perception has an important role e.g. in the model of information processing and in the consumer decision process along with motivation in problem recognition. Without perception, the processes would not be initiated in the first place. During the recent years, the significance of sensory experiences and ensuing perceptions has accumulated as hedonic aspects of consumption habits have become widely recognised (Solomon, 2007). From the consumer behaviour perspective, the emphasis in conceptualising perception lies more on the subjective experience and individual bases compared to psychology and social psychology.

In particular, perception is a subjective view of reality and selective as such (Antonides and van Raaij, 1998). It is the complex process by which people select, organise and interpret sensory stimuli into a meaningful picture of the world (Williams, 1981; Armstrong and Kotler, 2000). This three-stage process translates raw stimuli into different meanings for each person since perceptions are results of variations in the psychophysics of perception and the cognitive biases and distortions of individuals (Antonides and van Raaij, 1998). In other words, perceptions are unique, i.e. perception has to do with how we deal with incoming stimuli when three cognitive processes intervene: selective attention, selective distortion and selective retention (Bennet et al., 1988; Armstrong and Kotler, 2000). Perception is not just a pure sensation – whether internal or external, tangible or intangible – but the result of becoming aware and assigning meaning to phenomena (McKehnie and Doyle, 1966). In the context of this dissertation, user perception is defined as the total experience of the user's subjective process of selecting, organising and interpreting the banking services provided in the internet context.

Antonides and van Raaij (1998) analysed perception as a process that is structured by concepts in three main dimensions. Prior knowledge, orientation and the consumer's cognitive style within a certain situation are determinants that may evoke certain intermediary conditions for consumers, such as expectations and involvement. These conditions lead to perceptual transformations, distortions like completing perception, selective perception, biased perception and perpetual differentiation. The following table illustrates the process.

**TABLE 2.** Process of perception (Antonides and van Raaij, 1998)

DETERMINANT	INTERMEDIARY STATES	PERCEPTION EFFECTS
Prior knowledge	Schemas	Completing perception
Orientation	Frames	Selective perception
Situation	Expectation	Biased perception
Cognitive style	Involvement	Differentiation

Users with certain prior knowledge or earlier experiences observe phenomena differently in comparison to users who are lacking this knowledge. Consumer orientation refers to consumption tendency, such as instrumental or hedonistic behaviour that activates certain frames and leads to a more selective observation of the surroundings. Situational conditions influence perception when due to limited time, for instance, selective perception, biased perception or perceptual differentiation step in. Schemas create a window, filter or bias for our observation: we usually see what we are expecting to see. Further, information that goes through the filter will create expectations. Involvement is developed on the basis of the consumer's personal relationship with a product or service including perceived importance, value and risk. Finally, people are inclined to complete partial observations (completing perception), select information according to their personal capacity (selective perception), see things through their own coloured glasses (biased perception) and take notice that their perceptions differ from others since different aspects and different categories are included to the perception (perpetual differentiation).

In practical marketing research, the concept of perception has been used rather freely: e.g. Davis (1989) referred to the consumer's beliefs when he defined perceived usefulness and perceived ease of use as the degree of which a person believes that using a particular system affects either one's job performance or the amount of required effort. Also Parasuraman et al. (1985) interpreted perceptions as consumer beliefs concerning the service received. In the same vein, Brown and Swartz (1989) conceptualised perceptions as experiences of a service; Parasuraman et al. (1988) used the terms of a global judgement or attitude regarding the pre-eminence of a service when defining perceived service quality. Also, Zeithaml (1988) referred to perception as the consumer's overall assessment of price including perceived value and perceived price. Zeithaml (1988) cites herself (1982; 1983) as well as Dickson and Sawyer (1985), when stating that encoding is the process where a consumer makes a price meaningful to them.

Further, the consumer's perceptions of the used service and its performance lead the consumer to formulate opinions and attitudes towards the service. They also have an impact on the consumer's assessment of satisfaction of the actual performance of the service (e.g. Grace and O'Cass, 2004; Gountas and Gountas, 2007). For example, service qualities are determined by the user's perceptions of the overall service experience (e.g. Boulding et al., 1993; Brady and Cronin, 2001; Berry et al., 2006). According to Berry et al. (2006), the service experience consists of functional, mechanical, and humanic clues influencing both rational and emotional perceptions of service quality. Apparently, perception is tightly intertwined with other concepts of belief and attitude in the psychological dimension of consumer behaviour (c.f. Armstrong and Kotler, 2000).

Since perception obviously has a pivotal role in consumer behaviour, it is then also influential when concerning marketing management. The consumer's consumption values, and goals as such, are rather stable and unalterable, but marketers may influence the extent to which consumers perceive that they are achieving those abstract consumption goals (c.f. Antonides and van Raaij, 1998; Solomon et al., 2006; Solomon, 2007). If the service provider promises to fulfill these higher order needs and actually succeeds, even when the consumer was striving to satisfy lower order needs, the service provider can influence the consumer's actual behaviour (e.g. Parasuraman et al., 2005). In some instances, satisfying higher order needs can increase the perceived value of a simple lower order need. The consumer's cognitive drivers, such as knowledge, beliefs and perceptions, can be influenced by appealing to affective drivers, namely feelings, moods and emotions. Hence, the hedonic dimensions of a service affect the consumer's overall experience. (c.f. Antonides and van Raaij, 1998; Kolesar and Galbraith, 2000; Solomon et al., 2006; Solomon, 2007) Consequently, it is essential for marketers to manage consumer expectations and perceptions. Managing consumer perceptions of the total service experience is critical in creating a favourable evaluation of any service and essential for the establishment of customer loyalty (Kolesar and Galbraith, 2000; Berry et al., 2006; Ford and Bowen, 2008).

### 2.1.3 Perceptions in the context of internet banking

The adoption of internet banking has invoked undeniably enormous amounts of interest among academics (e.g. Mols, 1999; Sathye, 1999; Howcroft et al., 2002; Rotchanakitumnai and Speece, 2003; Sohail and Shanmugham, 2003), and here



again, perception is clearly evident. Since the concept of perception is broad, it has usually been related to some other defining construct. The perception of service usefulness has been found to be the key construct for promoting the adoption of internet banking, since a well-designed and easy-to-use internet bank may not be used if it is not perceived as useful in the first place (Eriksson et al., 2005). Also, Chan and Lu (2004) validated the significant indirect effect of perceived ease of use on the intention to adopt/use through perceived usefulness. Perceived usefulness and perceived ease of use, the basic constructs of the Technology acceptance model (TAM; Davis, 1986; 1989), are common concept combinations regarding perception. Basic TAM has been accompanied by several other constructs since the two have been found out to be insufficient to explain the complex interdependencies in adopting internet banking. For example, Chau and Lai (2003) used four additional variables (personalization, alliance services, task familiarity and accessibility) and established a significant influence of the first three on perceived usefulness and the last on perceived ease of use inducing a positive attitude toward adopting the services. Also convenience, i.e the relative advantage in comparison to branch banking (Polatoglu and Ekin, 2001; Howcroft et al., 2002), refers to consumers' perceived usefulness internet services (Andrade, 2000; Yoon and Kim, 2007).

In addition, the influence of perceived credibility reflecting the user's security and privacy concerns (Wang et al., 2003) and also perceived usefulness and perceived ease of use influencing the consumer's computer self-efficacy (Yi-Shun et al., 2003) have been attested. Ravi et al. (2006) profiled internet bank users as well as non-users and ranked variables according to the level of their influence on the usage of internet banking in the following order: intention, beliefs, subjective norms, trust in the bank, attitude, perceived usefulness, security and perceived ease of use. Further, perceived risk (Yiu et al., 2007; Lassar et al., 2005) has been identified to affect the intentions to adopt internet banking with perceived usefulness and perceived ease of use. According to Lai and Honglai (2005), the discriminating power of the TAM construct is questionable in internet banking. They concluded that the TAM was invariant across different gender, age, and IT competence subgroups suggesting that male and female, old and young, IT expert and novice, conceptualized the TAM construct in very similar ways.

Perceptions of service quality closely connect with adoption of the services and user satisfaction with the services (c.f. Jun and Cai, 2001; Polatoglu and Ekin, 2001; Zhu et al., 2002; Jayawardhena, 2004). Jun and Cai (2001) identified altogether 17 dimensions of internet banking service quality, which were grouped into three categories – customer service quality, banking service product quality, and online

systems quality. Jayawardhena (2004) applied the original SERVQUAL scale and measured service quality in internet banking by using 21 parsimonious measures spread across five dimensions; access, website interface, trust, attention and credibility. Service quality factors, namely “efficiency and security”, “fulfilment” and “responsiveness”, influence users’ evaluation of internet banking services by improving satisfaction with respect to the online aspects of service quality (Sohail and Shaikh, 2008). Additionally, perceived speed of delivery, reliability and enjoyment have a significant impact on service quality perceptions (Shamdasani et al., 2008), and finally, reliability, assurance and responsiveness are also commonly quoted dimensions of perceived service quality in internet banking (e.g. Sathye, 1999; Polatoglu and Ekin, 2001; Liao and Cheung, 2002; Karjaluoto et al., 2002; Gerrard and Cunningham, 2003). According to Liao and Cheung (2008), consumer satisfaction depends on individual perceptions of service quality.

Bauer et al. (2005) conceptualised perceived service quality as perceived portal’s service quality and classified quality dimensions into three service categories: core services, additional services, and problem-solving services. They suggested that there does not exist a universal perception of service quality in the internet but “a multi-dimensional and multi-factor construct that is composed of partial quality judgments with regard to the portal’s diverse service categories” (Bauer et al., 2005, 153). According to Broderick and Vachirapornpuk (2002) the level and nature of customer participation have the greatest impact on the quality perceptions of the service experience, and a lot of emotion is involved in the internet banking process for customers. When it comes to the future success and continuity of internet banking, perceived customer value plays a pivotal role in influencing continued interaction although perceived service quality, perceived risk and satisfaction are important predictors of continued interaction as well (Shamdasani et al. 2008).

Recently, the resistance towards internet banking adoption has gained increasing academic interest. For example, Gerard et al. (2006) identified eight factors causing resistance towards internet banking. Here, the perception of risk was ranked as the most important barrier. However, Aldas-Manzano et al. (2009) found that these consumer risk perceptions can be reduced effectively by consumer innovativeness. There are also cultural differences in the perceptions of barriers. Perceived difficulty in using computers and the lack of personal service in internet banking were found to be the main barriers among mature customers in Finland (Mattila et al., 2003). Laforet and Li (2005) found that the main barrier to online banking was the perception of risks among Chinese consumers, and also, their traditional cash-carry banking culture prevented the adoption. Zhao et al. (2008) examined Chinese

consumers' risk perceptions in depth and found several psychosocial barriers. Results clearly revealed that these barriers are culture-bound and differing from Western patterns.

Grabner-Kräuter and Faullant (2008) studied adopters and non-adopters of internet banking and confirmed the influence of internet trust on risk perception and consumer attitudes towards internet banking. Ozdemir et al. (2008) found significant differences between adopters and non-adopters of the service in terms of their perceptual, experience and consumer related characteristics. They classified the non-adopters into late adopters and laggards regarding consumers' intention to use the service in the future, while perceptions of risk and service usefulness proved to be the main determinants of adoption (Ozdemir et al., 2008). Also Laukkanen et al. (2008) analyzed non-adopters in three groups, i.e. postponers, opponents and rejecters. The rejecters resisted internet banking more intensively and diversely than the opponents, whereas the postponers show only slight resistance. The psychological barriers were found to be even higher determinants of resistance than perceptions of usefulness and ease of use, and, the effect of self-efficacy was emphasized in bank customers' risk perceptions to internet banking (Laukkanen et al., 2008). The following table summarizes the literature.

**TABLE 3.** Summary of conducted studies substantial to this research: Perceptions in internet banking

<b>FOCUS</b>	<b>FINDINGS</b>	<b>AUTHORS</b>
perceptions of service quality	<p>develops a model of perceived service quality; level and nature of customer participation proved to have the greatest impact on quality perceptions</p> <p>models media perceptions in relation to technical and functional quality; emphasises the effect of task complexity and conceptual cues on total experience and quality perceptions</p> <p>develops a scale for measuring dimensions of quality including access, web interface, trust, attention, credibility with the emphasis on the first three ones</p> <p>identifies portal quality dimensions in three service categories: core services, additional services, and problem-solving services</p> <p>models the antecedents and consequences of perceived service quality predicting continued customer interaction</p> <p>defines three service quality factors: efficiency and security, fulfilment and responsiveness.</p> <p>adopts e-service quality model, develops and validates a framework with five dimensions (customer service, web design, assurance, preferential treatment, and information provision) for internet banking.</p>	<p>Broderick and Vachirapompuk, 2002</p> <p>Lassar and Dandapani, 2003</p> <p>Jayawardhena, 2004</p> <p>Bauer et al., 2005</p> <p>Shamdasani, et al., 2008</p> <p>Sohail and Shaikh, 2008</p> <p>Ho and Lin, 2010</p>
perceptions of convenience	<p>an evident relative advantage in comparison to branch banking</p> <p>females and young users perceive the convenience of internet banking better than male and older users</p> <p>one of the most beneficial features of internet banking</p> <p>both users and non-users perceived high level of convenience</p> <p>important factor providing satisfaction (most weight in old age group's, users with degree and moderate-income group), and affecting positively on acceptance</p>	<p>Polatoglu and Ekin, 2001</p> <p>Howcroft et al., 2002</p> <p>Daniel, 1999; Liao and Cheung, 2002</p> <p>Gerrard and Cunningham, 2003</p> <p>Poon, 2008</p>

TABLE 3. Summary of conducted studies: continued

FOCUS	FINDINGS	AUTHORS
perceptions of ease of use	original construct in TAM, positive direct effect on attitude towards adoption as well as positive indirect effect on attitude through "usefulness"; produced increase the feelings of self-competence and determination, static	Chau and Lai, 2003; Wang et al., 2003; Chan and Lu, 2004; Eriksson et al., 2005; Yiu et al. 2007; Ravi et al., 2006; Pikkarainen et al., 2006; Ozdemir et al., 2008
perceptions of usefulness	original construct in TAM, positive direct effect on attitude, more influential construct than ease of use; antecedent of ease of use, dynamic process	Chau and Lai, 2003; Liao and Cheung, 2002; Wang et al., 2003; Chan and Lu, 2004; Eriksson et al., 2005; Ravi et al., 2006; Pikkarainen et al., 2004; Yiu et al., 2007; Ozdemir et al., 2008
perceptions of difficulties in computer/ internet use	inhibitor of adoption; lack of skills in using computer, mainly elderly people	Mattila et al., 2003; Laforet and Li, 2005; Yiu et al., 2007, Mavri and Ioannou, 2006
perceptions of credibility	TAM, construct to reflect the security and privacy concerns; obtained stronger influence on behavioral intention than "perceived usefulness" (original variable in TAM)	Wang et al., 2003
perceptions of security	determinant of dissatisfaction on service quality effect on willingness to use one of the four factors of corporate image; needs to be emphasised one of the most important attributes, along reliability and privacy issues, in bank selection process comprised a factor of relative advantage with privacy, affected on adoption security and privacy were found to have a relatively weak relationship with the acceptance	Jun and Cai, 2001 Liao and Cheung, 2002 Flavián et al., 2004 Akinci et al., 2004  Hernandez and Mazzon, 2007 Pikkarainen et al., 2004

TABLE 3. Summary of conducted studies: continued

FOCUS	FINDINGS	AUTHORS
perceptions of risk	<p>one of the main barriers of the adoption proved to be one of the eight factors inhibiting the adoption</p> <p>one of the constructs of extended TAM, found to one of the main barriers of the adoption</p> <p>no influence on current users, but had significant weak negative effect on adoption reduced by consumer innovativeness</p>	<p>Laforet and Li, 2005</p> <p>Gerrard et al., 2006</p> <p>Yiu et al., 2007</p>
perceptions of reputation	<p>one important component of internet bank's image along security, services offered and access to them</p>	<p>Eriksson et al., 2008</p> <p>Aldas-Manzano, 2009</p> <p>Flavián et al., 2004</p>
perceptions of value	<p>perceived customer value plays a pivotal role in influencing continued interaction, impact of enjoyment</p> <p>compares value perceptions between internet and mobile banking from means-end approach; theoretically efficiency and convenience seem to be overlapping concepts</p>	<p>Shamdasani, et al., 2008</p> <p>Laukkanen, 2007</p>

As the previous table clearly illustrates, internet banking has evoked a considerable amount of academic interest. Also, it addresses fairly well the manifold conceptualisations of perception.

## 2.2 Segmentation approach

Segmentation as such can be considered unsuitable for the premises of this study since it very strongly represents functional modern marketing. However, it can be considered as a matter-of-course when mapping the major ideas in the marketing discipline, and thus, the framework of this research is built on the foundations of the segmentation approach. Since the concept of segmentation was introduced in the 1950's, it has become "one of the most fundamental concepts of modern marketing" (Wind, 1978). In order to cover the several segmentation principles varying from geographic, demographic, psychological and psychographic features to more behavioural variables that recognise more subtle features of consumers, numerous methods to conduct segmentation were introduced by the end of the 1980's (see Beane and Ennis, 1987; Tynan and Drayton, 1987). Academic research concerning the possibilities of market segmentation for banks has been carried out since the early 1970's, although other consumer and industrial markets had started to study and develop segmentation thinking almost two decades earlier.

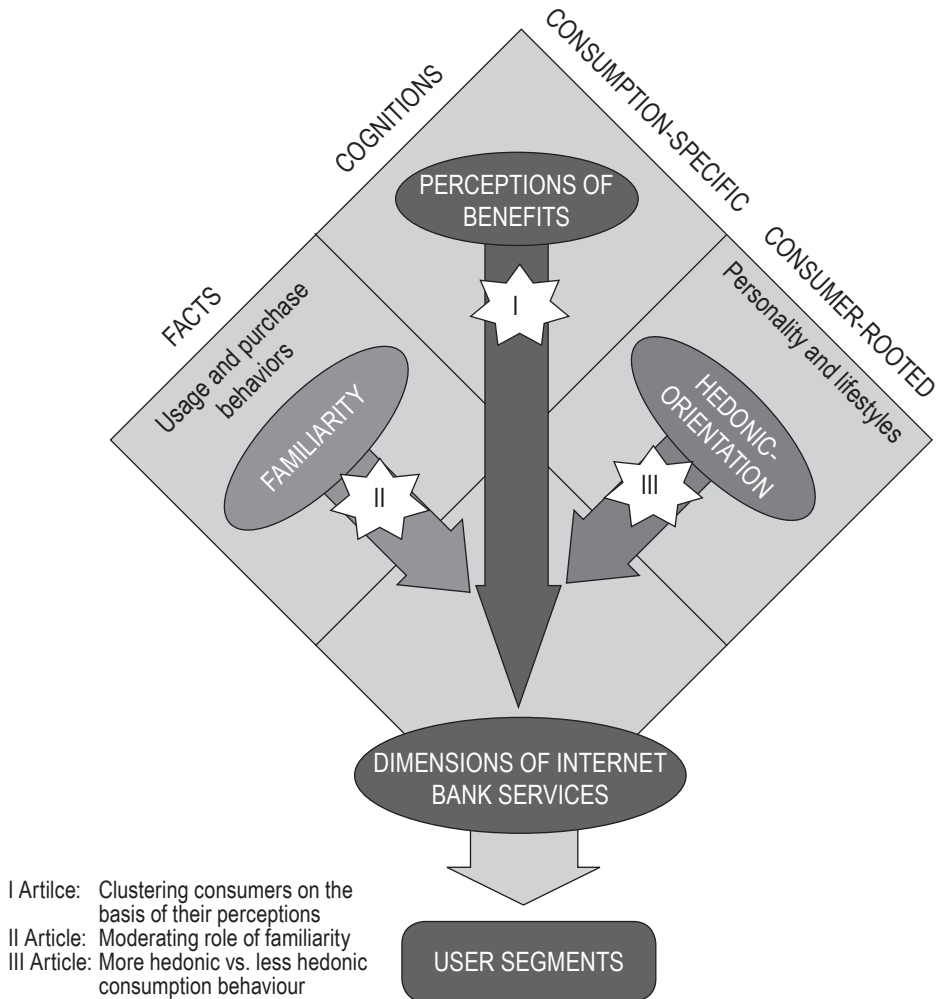
Segmentation thinking also gradually entered the financial services sector and financial service providers started to take advantage of its potential (Anderson et al., 1976; McKechnie and Harrison, 1995). Time has not detracted the strength of the original definition of segmentation: "Viewing a heterogeneous market as a number of smaller homogeneous markets, in response to differing preferences, attributable to the desires of consumers for more precise satisfaction of their varying wants" (Smith 1956, 5; cf. Chaffey et al., 2009, 239). Homogeneity of needs and wants within a group of consumers is still the fundamental insight of segmentation as well as the evident root of its strength. As Meadows and Dibb (1998b) stated, in order to gain success in a competitive environment with a diverse customer base representing various needs and individually differing buyer behaviour, well-developed segmentation tools are essential. The foundation of marketing strategy is to identify segments, target them, position them and develop a differential advantage over rivals (Dibb et al., 2001). The following table summarises the bases for segmentation.

**TABLE 4.** Bases for market segmentation (adapted and compiled from Wisenblit, 2008)

	<b>CONSUMER-ROOTED</b>	<b>CONSUMPTION-SPECIFIC</b>
<b>FACTS</b>	Empirical Personal Features: demographics and geographics	Usage and Purchase Behaviours: usage rate, usage situation/occasion
<b>COGNITIONS</b>	Personality, Lifestyle and Sociocultural Values: personality traits and psychographics	Attitudes and Preferences Regarding the Product or Service: benefits sought, level of involvement, awareness of alternatives

Consumer characteristics are here divided on the basis of two criteria: facts versus cognitions and consumer-rooted versus consumption-specific (Schiffman et al. 2010). Facts are simple consumer characteristics that can be measured by single questioning whereas cognitions require more complex questioning to capture the abstract nature of the construct. Further, consumer-rooted features, like physical, social and psychological characteristics, are contrasted with consumption-specific factors, either usage and purchase behaviours or attitudes and preferences, such as benefits sought and level of involvement. This grouping provides the basis for developing the dissertation framework.





**FIGURE 1.** Framework of the research (developed on the basis of Wisenblit, 2008)

Familiarity and hedonic-orientation were chosen to be the moderating factors because they represent fairly well the first two concepts in the determination dimension preceding the intermediary conditions in process of perception presented in Table 2. In other words, these two have a crucial meaning in initiating the whole process. The numbered stars illustrate the arrival points of the articles to the issue. The purpose is not to analyse the effect of either familiarity or hedonic-orientation on the defined clusters but in relation to pure perception of dimensions of internet banking services, i.e. benefits.

### 2.2.1 Consumption-specific versus Cognition: Perception of benefits

Segmentation methods vary in their features and utilities. A priori segmentation methods have been proved to have only little predictive power in comparison to post hoc methods, and thus, Machauer and Morgner (2001) suggested that post hoc segmentation should be employed in the segmentation of bank markets. The most widely used post hoc method is probably benefit segmentation since its importance is well established in the literature (Tynan and Drayton, 1987; Loker and Perdue, 1992; McDougall and Levesque, 1994; Minhas and Jacobs, 1996). As Haley (1968, 31) argued: "it is the benefits which people are seeking in consuming a given product (which) are the basic reasons for the existence of true market segments". Accordingly, consumers are classified based on their diverse needs and requirements, and therefore, segments are defined by rather causal factors. Benefit segmentation can be used in developing products and services that reflect the actual needs and wants of consumers.

Benefit segmentation seems to serve as one general heading representing one of the cluster-based segmentation designs since the concept of benefit is used in a relatively broad sense. Quite often suggested benefits seem to correspond rather to the definition of attributes than to the definition of benefits in comparison to the structure of the means-end chain (cf. Reynolds and Gutman, 1988). This lack of conceptual clarity can be found quite characteristic to several benefit segmentation studies but this does not thwart the usefulness of the method. Although Machauer and Morgner (2001) combined different attitudinal dimensions to expected benefits, they state that the used approach can be seen as a form of benefit segmentation. Consequently, part of this research is performed in the spirit of benefit segmentation even though the concept of dimension is preferred to the concept of benefit. The purpose of Article I is to represent the consumer segments based on user perceptions of internet bank services in order to unfold the issue from the managerial perspective.

Haley (1968) recommended benefit segmentation as a tool to identify factors with a causal relationship since he found segmentation relying on purely descriptive factors problematic. In these fragmented "postmodern" times sophisticated and sensitive segmentation becomes even more essential; it has to face new challenges in order to maintain its vitality as a tool for various purposes of R&D and marketing activities. The dimensions of internet banking services are the focus of user perception examined in this research. It is arguable to consider these dimensions as representative of the benefits that users perceive in internet banking. Thus, the sensibility of a post hoc clustering method of benefit segmentation is utilised in this

research. Studies considering segmentation in internet banking are summarised in Table 5.

**TABLE 5.** Summary of studies substantial to this research: Segmentation approach

<b>EMPHASIS</b>	<b>FINDINGS</b>	<b>AUTHORS</b>
ADOPTION, role of trust and distrust, framework for existing and potential online banking users	four customer groups: ambivalent, fearful, early adopter and healthy customer; acceptance of channels evoking comfortability, rejection those causing fear and concern	Benamati and Serva, 2007
ADOPTION, analyses non-adopters, not a homogenous group	Important to acknowledge the differences between “prospective adopters” and “persistent non-adopters”	Lee et al., 2005
ADOPTION (TAM), adopters and non-adopters, perceptual, experience and consumer related characteristics	significant differences between adopters (users) and two groups of non-adopters (late adopters and laggards)	Ozdemir et al., 2008
ADOPTION, segmentation based on demographics – age group, education level and income level	security, privacy and convenience play a significant role in the acceptance of internet banking in the segments	Poon, 2008
ADOPTION, demographics, attitudes, and customer perceived benefits	mature customers, non-homogenous customer group as such	Mattila et al., 2003
cluster-analysis according to an adapted decision-making framework	four segments of which one with positive attitude towards internet banking	Durkin, 2004
attitudinal segmentation on financial delivery channels	identifies preferred delivery channels in regard of seven customer orientations	Thorton and White, 2001
ADOPTION, attributes of internet banking services	user and non-user segments, three sub-segments: “speed seekers”, “cautious users”, “the exposed users”	Akinci et al., 2004

In the previous table, it becomes fairly well established that adoption of internet banking has been dominating the research in the field. This justifies the dissenting approach of this research. Internet banking has turned into a natural part of people’s everyday life and it is reasonable to broaden the view.

## 2.2.2 Consumption-specific versus Facts: Familiarity

Prior knowledge is the first concept initiating the process of perception (Antonides and van Raaij, 1998). Already Solomon et al. (1985) suggested that novices apply more cognitive effort in a service encounter than consumers with more experience. Consumer familiarity with a product or service is a part of consumer knowledge (Alba and Hutchinson, 1987; Aurier and Ngobo, 1999). According to Alba and Hutchinson (1987), familiarity can be defined as “the number of product-related experiences that have been accumulated by the consumer” (p. 411). Several researchers have examined the role of familiarity in different areas of consumer behaviour (e.g. Alba and Hutchinson, 1987; Arora and Stoner, 1996; Coupey et al., 1998; Dahl et al., 2001; Johnson and Russo, 1984; Park and Lessig, 1981; Rao and Monroe, 1988; Shehryar and Hunt, 2005; Söderlund, 2002). Therefore, the importance of familiarity as an effective consumer characteristic is well established. Article II analyses the influence of familiarity on the user perceptions on internet banking services.

At the most general level in the internet context, familiarity has been conceptualized as familiarity or experience of overall internet usage (e.g. Corbitt et al., 2003; Miyazaki, 2001; Pechtl, 2003; Rodgers et al., 2005; So et al., 2005). From a more focused perspective, familiarity in the internet can refer to some specific activity, for example, whether or not the consumer has previous experiences of buying on the internet (e.g. Lee and Lee, 2001; Park and Stoel, 2005; So et al., 2005), or whether or not the consumer feels familiar with a specific website or vendor (e.g. Flavian et al., 2006; Gefen, 2000; Gefen and Straub 2004). According to Gefen (2000) an internet vendor appears more trustworthy as the customer’s familiarity with a vendor increases. The consumer is more willing to purchase products from that vendor and is more willing to make inquiries about products on that site. Furthermore, the level of general web experience has been related to higher levels of trust (Corbitt et al., 2003). Miyazaki and Fernandez (2001) found out that higher levels of internet experience create both lower risk perceptions and fewer concerns regarding system security and online fraud. However, higher levels of internet experience might create more concerns regarding online privacy (Miyazaki and Fernandez, 2001).

Familiarity with the internet in general or with electronic commerce has also been indicated to affect online shopping adoption and usage patterns. For example, familiarity with the internet as a communication technology has been suggested as the most important factor favouring online shopping adoption (Pechtl, 2003), whereas past online purchase experiences can have an impact on future online

shopping intentions (Shim et al., 2001). In addition, Corbitt et al. (2003) suggest that there is a strong positive correlation between the user's web experience and e-commerce participation. Also, previous research into familiarity in internet banking has focused mainly on the adoption and non-adoption of the services, as the table 6 illustrates after following sub-chapter.

### 2.2.3 Consumer-rooted versus Cognitions: Hedonic-orientation

An orientation follows prior knowledge in the process of perception (Antonides and van Raaij, 1998). Consumption orientation activates certain interpretational frames and guides the selection of information coming from the surroundings (Antonides and van Raaij, 1998). Identifying the consumer orientations was deemed important and had been used in prior studies by Bellenger and Korgaonkar (1980) using economic and recreational orientations in shopping experiences. Since that time, experiential and hedonic aspects of consumption have gained serious interest in marketing research. Most of the academic discussion exploring these consumption dimensions has focused on shopping either in a traditional retail environment (e.g. Arnould and Reynolds, 2003; Fiore, Yah and Yoh, 2000; Griffin et al., 2000; DeNora and Belcher, 2000; Babin et al., 1994) or in an online shopping environment (e.g. Wikstrom et al., 2002; Childers et al., 2001; Mathwick et al., 2001). Also different free-time activities, like movies and music (e.g. Neelamegham and Jain, 1999; DeNora and Belcher, 2000) sports, (e.g. Madrigal, 2003; Hopkinson and Pujari 1999) and arts (e.g. Caldwell, 2001; Reddy et al., 1998) have served as research contexts for hedonic and experiential consumption. The extension of the traditional information-processing model to more experiential dimensions has also had a notable impact on theoretical development in marketing thinking (Hirschman and Stern, 1999; Erevelles, 1998; Thompson, 1997; Spangenberg et al., 1997; Mano and Oliver, 1993; Denzin, 2001; Pham, 1998; Richins, 1994, 1997).

There are two distinct ways to conceptualise experiential consumption. Experiential consumption can be understood as consisting of mundane consumption acts: products as such do not satisfy any need or serve a purpose but the actual consumption of a certain product provides an experience in which the consequences of product usage are realised (see e.g. Holbrook, 2000). In other words, every consumption situation can be seen as an experience that recognises both utilitarian and hedonic dimensions of consumption without preferring either of them. This view does not make a difference between the information-processing model and the

experiential view but acknowledges the existence of both aspects in a consumption situation. The other approach to experiential consumption emphasises the meaning of “fantasies, feelings and fun” (Holbrook and Hirschman, 1982) or “experience, entertainment, exhibitionism and evangelising” (Holbrook, 2000) and concentrates mainly on playful leisure activities, sensory pleasures, daydreams, aesthetic enjoyment and emotional responses. There has also been a tendency to divide products and services into ‘think’ and ‘feel’ products (e.g. Dhar and Wertenbroch, 2000) indicating that certain products and services produce different amounts of pleasurable experiences regardless of consumer characteristics and that products/services can be divided into distinct categories, which are utilitarian and hedonic by nature. The following table summarises the substantial literature regarding consumer characteristics in internet banking context.

TABLE 6. Summary of studies substantial to this research: Consumer characteristics

PHENOMENON OF INTEREST	FOCUS	FINDINGS	AUTHORS
FAMILIARITY	ADOPTION, TAM with trust and usage of internet banking, "how long, how often"	Trust and TAM constructs as antecedents of usage	Eriksson et al., 2005
	ADOPTION, self-efficacy-related measure: web usage intensity; length of web usage; and technology comfort	all three variables reveal positive relationships, but only intensity of web usage is significant to online banking adoption	Lassar et al., 2005
	ADOPTION, TAM with four additional variables (personalization, alliance services, task familiarity, and accessibility)	significant influence of task familiarity on perceived usefulness and perceived ease of use	Chau and Lai, 2003
	ADOPTION, comparison between users and non-users	task familiarity appears to have significant influence on perceived usefulness	Laforet and Li, 2005
	ATTITUDE FORMATION, prior computer and technology experience, personal banking experience	positive effect on consumer attitudes toward the usage of electronic banking	Karjaluoto et al., 2002
HEDONIC-ORIENTATION	ATTITUDE, effect of internet familiarity on trust and acceptance of internet banking	a strong positive effect on internet trust	Grabner-Kräuter and Faulant, 2008
	ADOPTION (TAM), the effect of users' hedonic internet use on internet banking	hedonic-based use had a negative effect on adoption	Lassar et al., 2005
	ADOPTION, hedonism oriented IB sites and internet banking adoption	utilitarian orientation of the website rather than hedonic orientation has a significant influence on adoption	Ndubisi and Sinti, 2006
	QUALITY, measurement of web portal quality	enjoyment and entertainment within the added value dimension	Bauer et al., 2005
	ADOPTION, comparison of DoI, TAM and PCI	users' psychographic characteristics, hedonic-orientation negative effect	Gounaris and Koritos, 2008

Experiential consumption has two functions in this research: due to the explorative and descriptive nature of this research, the statements measuring the dimensions of internet bank services combine both utilitarian and hedonic aspects, and thus, cover both conceptualisations of experiential consumption. On the other hand, the features and characteristics measuring the experiential consumer have been derived from previous research and literature concerning the consumer under post-modern conditions (e.g. Firat and Schultz 1997; 2001; Firat and Venkatesh, 1995; Cova, 1997) and from the perspective of experiential consumption (e.g. Holbrook and Hirschman, 1982; Unger and Kernan, 1983). This enables the possibility to analyse user perceptions of internet banking under postmodern conditions on the one hand, and an opportunity to evaluate a utilitarian service context in an alternative light for the purposes of future service development on the other.



### 3 METHODOLOGY OF THE STUDY

According to Arndt (1985), scientific orientations signify the established role of the researcher and the objectives of the research. In particular, an orientation explains how the data, existing theories and values of the researcher are interrelated. Arndt refers to the so-called science triangle proposed by Galtung (1972) that illustrates the taxonomy of alternative orientations to combine the three. Empiricism compares data to theory emphasising objectivity by ignoring the researcher's values. Criticism represents the confrontation of data and values by providing value statements of reality. Constructivism assesses whether and to what extent the predicted state of reality corresponds to the preferred state by contrasting theory and values. This research avows itself as a follower of the most dominant orientation in marketing research: empiricism (c.f. Arndt, 1985).

The following step in the path is to define the adopted paradigm that stands for "the philosophical sense to denote an implicit or explicit view of reality" (Morgan, 1980, 606). Here, Arndt (1985) suggests a classification along two dimensions: objective versus subjective nature of science and harmony versus conflicting nature of society. In this classification, consumer behaviour is situated in the objective-harmony section representing the logical empiricist paradigm. The underlying ontological assumptions are in line with the functionalist paradigm represented by Morgan (1980). However, this research adheres to a more polymorphic view to the consumer instead of a simple "instrumental man" metaphor, (c.f. Arndt, 1985), also acknowledging the metaphors of "irrational man" and "experiencing man" from the subjective world paradigm. Thus, modern empiricism is preferred in order to indicate the role of this study in relation to the social construction of scientific knowledge. It is important that the chain between the chosen orientation, chosen paradigm and chosen methods is in line with basic research tools and procedures. The following table illustrates the position of modern empiricism within the field of alternative paradigms.

**TABLE 7.** Basic beliefs (metaphysics) of alternative inquiry paradigms (Denzin and Lincoln, 2005)

ITEM	POSITIVISM	POSTPOSITIVISM	CRITICAL THEORY et al.	CONSTRUCTIVISM
Ontology	Naive realism – “real” reality but apprehendable	Critical realism – “real” reality but only imperfectly and probabilistically apprehendable	Historical realism – virtual reality shaped by social, political, cultural, economic, and gender values; crystallised over time	Relativism – local and specific constructed and co-constructed realities
Epistemology	Dualist/objectivist; findings true	Modified dualist/objectivist; critical tradition/community; findings probably true	Transactional/subjectivist; value-mediated findings	Transactional/subjectivist; created findings
Methodology	Experimental/manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental/manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	Dialogic/dialectical	Hermeneutical/dialectical

Peter and Olson (1983) classified scientific approaches into two categories: positivistic/empiricist and relativist/constructionist. Modern empiricism is situated between these two because it adopts a tolerant and open posture toward new theories and methods while subjecting all such theories and methods to critical scrutiny (Hunt, 2002). This positioning to the postpositivist tradition is illustrated well by Denzin and Lincoln (2005) who compiled a thorough review for alternative inquiry paradigms.

### 3.1 Modern empiricism

The premise of the research is to increase understanding by describing and explaining to a certain extent the phenomenon under study. Thus, modern empiricism was chosen to be the dominating philosophical orientation of this dissertation. Modern empiricism can be described as a combination of critical pluralism and scientific

realism (Hunt, 1991; 2002). The ontological assumption is that there is a real world but the “true” nature of reality can never be known with certainty. Epistemologically the study takes the stand that scientific knowledge is never absolute and much of our scientific knowledge is cumulative by nature. Although complete objectivity is impossible, science is more objective in justifying its knowledge-claims than non-sciences. Objectivity is underpinned by the use of procedures that are independent of cultural, social, political and economic factors. It is also useful to distinguish between procedures that science uses to discover its knowledge-claims from those that are used to accept or reject knowledge-claims. Modern empiricism attempts to discover regularities among the phenomena in the real world, some of these regularities can be stated in a universal form and others in a more probabilistic form.

From the perspective of modern empiricism, science is considered rational since its purpose is to increase understanding of the world (Hunt, 1991). This understanding is increased through developing theories, models, law-like generalisations and hypotheses, which purport to describe, explain and predict phenomena. Modern empiricism defines norms for doing good science that differs from the ones of positivistic and relativistic science. For example, theories should be testable, measures should exhibit reliability and validity and finally, data should not be fabricated or otherwise fraudulently collected. It must be remembered that absolute perfection in measurement procedures is impossible, thus the process should be described transparently so that readers can evaluate by themselves the suitability and appropriateness of the measurement. The empirical testing process provides good grounds for accepting some knowledge-claims and rejecting others.

## 3.2 Research process

### 3.2.1 Qualitative part

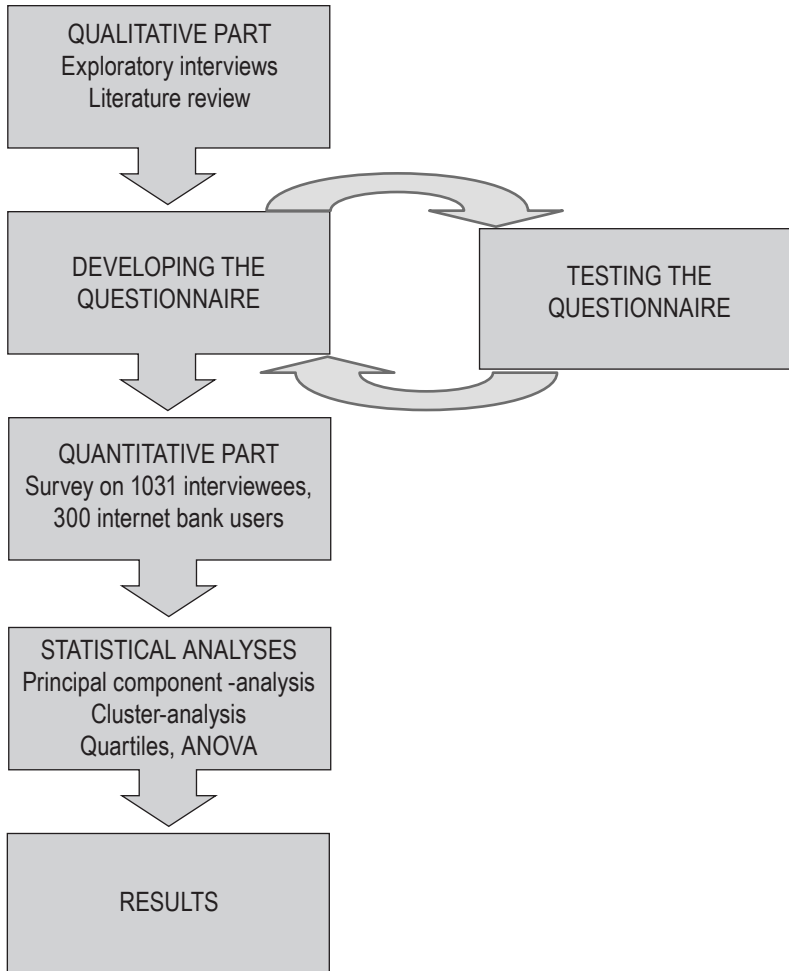
Qualitative methodology was utilized in the beginning of the research. The key research themes and issues were first generated through elaborate open-ended exploratory interviews with eleven active users of internet banking and the results were compared with findings from existent literature. These exploratory interviews as well as the literature reviewed provided the guidelines for the design of a questionnaire. In the interviews, the interviewers did not pose any specific questions to the interviewees but rather they encouraged the interviewees to talk about their

usage of internet bank services freely. The data was analysed only by noting the mentioned issues and calculating them. In addition, an extensive literature review was conducted in order to support the outcome of the interviews. Finally, statements derived from the literature of hedonic and experiential consumption were combined to the questionnaire so as to assess these aspects of consumer characteristics.

### 3.2.2 Quantitative part

The questionnaire was based on a qualitative pilot study and a literature review as was described above. The viewpoints and issues brought up in the interviews as well as theories of consumer behaviour and internet research were considered when designing the questionnaire. In addition, some internet banking services provided by a couple of foreign and domestic banks were studied. Thus, it is reasonable to note that the questionnaire originates clearly from practice instead of one certain theoretical standpoint. There were altogether 37 statements probing user perceptions of internet banking on a five-point Likert-scale (disagree and agree). Further, ten statements measured the characteristics of consumers and seven questions related to consumers' usage habits and experience with internet bank services. The basic background information including gender, age, occupation, education and annual incomes were obtained through the research institute conducting the survey.

The questionnaire was pilot tested with 20 undergraduate marketing students, who were active users of internet bank services. Necessary revisions were made and the questionnaire was accepted after second testing. The data were collected by means of a survey using personal interviews as part of a nation-wide consumer study conducted by a major Finnish research institute. The informants were chosen by quota sampling, where quotas corresponded to the national distribution of age, gender, county and municipality types. Thus, the survey is representative of the Finnish population of 15–74 year olds. The original data consists of 1031 computer-supported interviews made at consumers' homes. Of these, 300 consumers were active internet bank users and thus comprised the data set. The following figure illustrates the research process.



**FIGURE 2.** The research process

This figure assembles the process only regarding the empirical part. After the results from the statistical analyses were ready, the articles were written, submitted to peer review process, revised according to reviewers' comments and submitted again. When the articles were approved for publishing, it was time to finish the compilation section.

### 3.2.3 Measures

#### *FAMILIARITY*

For this research, a scale measuring “the number of product-related experiences that have been accumulated by the consumer” (Alba and Hutchinson, 1987, 411) was created. Accordingly, the construct of internet banking familiarity was operationalised by using two variables; frequency and length of internet banking use (see also Miyazaki and Fernandez, 2001; So et al., 2005). Information about how often consumers engaged in internet banking use was gathered by providing the respondents with five options: (a) daily, (b) 4–6 times a week, (c) 1–3 times a week, (d) 2–3 times a month and (e) once a month or less. The length of using internet banking was measured in months by asking the respondents “How long have you been using the internet bank?” The responses were later classified into three categories: under one year, between one and three years, and more than three years.

A measure of the familiarity construct was created by conducting principal component analysis on the variables of frequency and length, thereby yielding a standardized factor score for familiarity. Then, data were broken into quartiles based on familiarity (cf. Jacoby et al., 1986; Kuusela et al., 1998). The first quartile comprised of “low-familiar users” (N=77), those users having the least amount of accumulated experiences in using IB, i.e. having used internet banking most infrequently and/or started using internet banking only recently. The second and the third quartiles were combined into the category of “moderately familiar users” (N=133). The fourth quartile represented “highly familiar users” (N=90), i.e., representing users that have used IB most often and/or for the longest time.

#### *HEDONIC-ORIENTATION*

In order to portray the characteristics of a consumer who believes in the more experiential aspect of consumption, a pilot study using these ten statements was conducted. After an initial factor analysis, four variables have been chosen to compose a principal component measuring these consumer characteristics. The results are presented in more detail in Article II. The principal component attained a Cronbach alpha of 0,665.

The data were then divided into quartiles according to the constructed principal component. In order to achieve the definitional accuracy in comparing two groups of consumers who are maximally different in terms of how they like to consume, the quartiles were preferred to simply splitting the data. The lowest quartile of the principal component represents consumers who prefer less experiential consumption

(less hedonic consumers), while the highest quartile indicates consumers who like more experiential consumption (more hedonic consumers). The quartile sizes are different because of a tie. The second and third quartiles represent hedonically neutral consumers and thus, are irrelevant in this study and left out of the analysis. Consequently, the more hedonic users in the study were defined as people who want to emphasize their personality by services which they use (products representing self-images) (Firat and Shultz, 1997), seek excitement and experience during leisure time (subjective stimulating leisure time is like getting away from it all) (Unger and Kernan, 1983) as well as in life overall (Holbrook and Hirschman, 1982), as well as want to experience everything here and now (loss of commitment and involvement) (Firat and Shultz, 1997).

### 3.2.4 Dimensions of internet banking services

After initial statistical analysis it was found that some of the statements measuring attributes, benefits and experiences in internet banking services were too skewed, and thus, were left out from further analyses. Altogether 22 statements remained. These statements were divided into seven dimensions of internet banking services and each dimension was condensed to one variable using one factor principal component analysis that practically corresponds into generating sum variables. The dimensions were named as (1) convenience, (2) security, (3) status, (4) auxiliary features, (5) personal finances, (6) investment and (7) exploration. Cronbach alphas of the dimensions varied between 0,558 and 0,754 (see Appendix 1.). According to Nunnally (1978), an acceptable range of alphas is between 0,50 and 0,80, and thus, the results can be considered as good or at least acceptable.

- **Convenience** in internet banking context involves saving time and increased service efficiency relative to branch banking. It constitutes the relative advantage of adopting the new service channel (Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003). Convenience in the form of time savings, 24/7 access and service quality, is often mentioned as one of the most beneficial features of internet banking (Daniel, 1999; Liao and Cheung, 2002), and a key determinant of consumer satisfaction (Yang et al., 2003). Ramsay and Smith (1999) argue that convenience is one of the dominating factors in transaction channel preferences (Ramsay and Smith, 1999). Devlin (1995) explains that as people become more time and leisure conscious, the convenience aspects of internet banking will be increasingly valued.

- **Security** refers to the reliability of internet banking and an overall belief on the part of the user that banking transactions can be completed confidentially and safely. According to Polatoglu and Ekin (2001), security comprises of three dimensions – reliability, safety, and privacy. Consumers’ concerns about security, which arise from the use of an open public network, have been emphasised as being the most important factor inhibiting the adoption and use of internet banking (Sathye, 1999; Daniel, 1999; Cox and Dale, 2001; Howcroft et al., 2002). Security issues have also been identified as significant determinants of internet banking quality (Liao and Cheung, 2002; Jun and Cai, 2001).
- **Status** relates to the instrumentality of internet banking in expressing and enhancing one’s self-concept. The notion of status dates back to Grubb and Grathwohl’s (1967) review of self-theory and symbolism. As a dimension of social desirability, status measures the impact of internet banking use on self-image (Gerrard and Cunningham, 2003). Status implies impression management, i.e., by consuming certain products or services consumers strive to influence their image in the eyes of other consumers (Holbrook, 1999). Status within the internet banking context could play a role in impression management as well as in self-definition (Solomon, 1983).
- **Auxiliary features** refer to attributes within the internet banking offering which contribute to the overall augmented product. For example, voice effects, virtual figures, and search agents can be used to improve the usability and interactivity of internet banking, thus enhancing user-friendliness and reducing perceived risk. These features are characterized as contributing to “multimedia friendliness” (Waite and Harrison, 2004). Dholakia and Rego (1998) argue that pictures, multimedia capabilities and enhancements enabling complex interactive messages help create an interesting electronic environment, thus enhancing the overall quality of the Internet experience. Auxiliary features contribute to experiential value by adding to the efficiency, enjoyment, visual appeal and entertainment aspects of internet banking (Mathwick et al., 2002).
- **Personal finances** are comprised of features that are useful when managing personal accounts and conducting online transactions. For example, a calculator for estimating savings possibilities or tools for creating charts and figures reflecting account transactions are practical augmented services. Zhu et al. (2002) suggest that such capabilities are important features underlying the quality of customer experience. Jun and Cai (2001) cite the compatibility of internet banking with software products such as Microsoft Money and Intuit Quicken as examples of effective money management tools.



- **Investment** refers to practical devices and advice that could assist and support in investment activities. Providing savings and investment services is an important part of a bank's product mix (Minhas and Jacobs, 1996; Ülegin, 1998; Beckett et al., 2000; Lee, 2002). Investment services are high involvement products (Aldlaigan and Buttle, 2001), and thus constitute an important part of internet banking services. Examples of investment features are an on-line investment course on the bank's website, availability of real-time investment information, and personal purchase recommendations. Investment attributes also include the offering of tailored personal services and customised interactions otherwise lacking in online services (Mattila et al., 2003; Long and McMellon, 2004).
- **Exploration** refers to "exploratory information seeking" as defined by Baumgartner and Steenkamp (1996). The authors explain that exploratory consumer behaviour is an intrinsically motivated consumption process that can be divided into two distinct dimensions: exploratory acquisition of products (EAP) and exploratory information seeking (EIS). The relevant conceptualisation for this study is EIS. Obtaining consumption-relevant knowledge out of curiosity includes activities like reading the daily news on the bank's site, while EIS in terms of browsing and window-shopping involves following various links on the site. Joining virtual discussion groups to exchange opinions about banking issues with other consumers also falls under EIS. While engaging in exploratory and curiosity-driven browsing, consumers' probability of exposure to advertising and other marketing communication tends to increase (Raman, 1997).

## 4 SUMMARY OF THE ORIGINAL ARTICLES

This chapter summarises the main results of the original manuscripts incorporated into this thesis. The papers are presented in the order of their positioning and relevance in the framework of the study. As each article constitutes an independent entity, their focus, theoretical perspective and terminology are not mutually congruent. Yet, each article contributes to the focus of the main research purpose and the use of theoretical concepts has advanced and been refined, as the research process has been proceeding. It is not that important to seize certain concepts, but instead, acknowledge the phenomenon behind words. This summary strives to emphasise the findings of the articles that carry weight relative to the purpose of the whole thesis.

### 4.1 Article I: Clustering the consumers on the basis of their perceptions of the Internet bank services

The article provides the template for a segmentation approach on the basis of user perceptions. In order to have a nuanced understanding of users and their perceptions, a post hoc clustering method of benefit segmentation has been utilised. Although segmentation as a concept has been blamed to be outdated and old-fashioned, (cf. Dawes and Brown, 2000; Lusch, 2007), its' actual value is clearly proved again in the outcomes of this research especially from the managerial point of view. The purposes of this article were to examine the dimensions of internet banking services to broaden the approach into a more experiential perspective, to identify user clusters formed on the basis of their perceptions of suggested dimensions of internet banking services, and to examine the characteristics of these user clusters.

The results revealed noteworthy differences in how the respondents perceived dimensions of internet banking indicating that some of the proposed dimensions gain more positive perceptions from the users, and that experiential elements do have relevance. Homogeneous user clusters with comparable perceptions of internet banking were identified by a non-hierarchical K-means cluster analysis.

Clustering was performed on the basis of the seven dimensions of internet banking services represented in chapter 3.2.4. All four clusters presented distinguishing characteristics: besides their differing perceptions of proposed service dimensions, user clusters diverged from each other also regarding their personal features, e.g. attitudes towards technology and consumption tendencies in general, as well as two demographic variables: age and education.

Users in cluster 1, the suspicious, were concerned about the security dimension and downgraded convenience of the services, while valuing the auxiliary services. They were relatively old and also quite well educated. Their attitude toward technology was fairly negative and consumption as such seemed not to have any self-expressive meaning to them. On the contrary, cluster 2, the eager, perceived all the dimensions very positively although the dimensions which were entertaining by nature were emphasized. They were comparatively young and poorly educated with low incomes. As to their consumption tendency, it gained very experiential and expressive features. The eager were the biggest user cluster.

The reluctant, representing the third cluster, were averse to the internet banking services: they conducted the necessary transactions on the internet only because they trusted the security. They were the oldest consumer group and they had the best educational background. Technology was not a problem for them although it seemed like they would prefer face-to-face services to internet banking. Finally the practical, cluster 4, liked internet banking due to its convenience, security and slight impact of status, while the rest of the suggested dimensions were deemed insignificant. They perceived the usage of new technology almost as positively as the eager and they express quite favourable attitudes toward excitement and unexpected experiences in life. In addition, they were the most convinced of their capabilities to control chaos in comparison to the other clusters.

## 4.2 Article II: Consumer perceptions of internet banking in Finland: the moderating role of familiarity

The article looked at the mediating role of familiarity in perceiving internet banking. Therefore, this exploratory study addressed three research questions: how do users with differing levels of familiarity perceive the various dimensions of an internet banking offering; do users with differing levels of familiarity differ in the extent of internet banking services used; and whether the differing levels of familiarity are related to differences in user demographics. For the purposes of this research

project, a scale measuring “the number of product-related experiences that have been accumulated by the consumer” (Alba and Hutchinson, 1987: 411), was created. Accordingly, the construct of internet banking familiarity was operationalised by using two variables, frequency and length of internet banking use.

The results indicate significant differences along four of the seven dimensions of internet banking services on the familiarity criterion. These were status, personal finances, investment and auxiliary features. The other three dimensions, namely convenience, security, and exploration, did not correlate significantly with internet banking familiarity. Particularly, the analysis uncovered findings in the perceptions of status, personal finances and investment that appeared to be U-shaped when plotted along the familiarity criterion. That is to say, low-familiar users record the highest preference for these three dimensions, whereas moderately familiar users attain the lowest mean. The previous research did not give any indication of such curvilinear relationships for that kind of presumptions in these data.

The findings regarding status suggested that the use of internet banking reinforces the self-image of low-familiar users as well as highly familiar users compared to moderate users. For the former, this might connote keeping up with the times, thus separating them from the users of branch banking services. For the latter, this might reflect their self-image as experts in internet banking matters. Further, responses along the dimension of personal finances depicted a U-shaped distribution. This implies that low-familiar users are more liable to use the personal finance attributes of internet banking services. Such activities lose their attractiveness as consumers become habituated with the services, and tend to gain interest again as familiarity reaches a level adequate for more seriously conducted personal financial management.

When scrutinising the investment dimension, it became evident that moderate users were different from the other two consumer groups with the lowest mean. In the highly familiar group, investment was the most valued dimension of all four dimensions. Interestingly, the low-familiar users scored the highest mean on the investment dimension, although their current use of investment services in internet banking was minimal as compared to that of the highly familiar users. In addition, low-familiar users attained the highest mean in auxiliary features. Their needs for online support are greater simply because they have not used internet banking as much as the other groups. Linear decrease in perceptions of auxiliary features seems to adapt to the learning curve.

It is remarkable that all three user groups expressed confidence in the security of internet banking: security was not a major concern for any group. It is also

encouraging to note that there were no significant differences when groups rate the convenience of internet banking. Exploration obtained parallel judgement in all user groups: unappealing. It seems that consumers do not want to spend more time with internet banking services than is absolutely necessary. The analysis revealed that statistical differences between the user groups existed regarding their gender and age distribution as well as annual income levels. The length and frequency of their Internet usage in general correlated clearly with their familiarity with internet banking. Also, the extent of the used internet banking services increased as the users gained more familiarity.

### 4.3 Article III: More hedonic versus less hedonic consumption behaviour in advanced Internet bank services

This article represents an exploratory analysis of hedonic consumer characteristics of Finnish users of internet banking. The purpose of this study was to explore whether the perceptions of users representing hedonic consumption behaviour differ from the perceptions of users with less hedonic consumption tendency in an internet banking context. And if there are differences, to compare their perceptions of the dimensions of internet banking services that are defined as part of this study. The more hedonic users in the study were defined as people who want to emphasize their personality through the services which they use (products representing self-images) (Firat and Shultz, 1997), seek excitement and experience during leisure time (subjective stimulating leisure time is like getting away from it all) (Unger and Kernan, 1983) as well as in life overall (Holbrook and Hirschman, 1982), as well as want to experience everything here and now (loss of commitment and involvement) (Firat and Shultz, 1997).

The results indicate that based on their experiential consumer characteristics, user perceptions do differ from each other. All dimensions of the internet banking services, excluding security, produced a significant difference between more hedonic and less hedonic consumers, with more hedonic consumers scoring a higher mean in each category than the less hedonic consumers. Particularly, it was found that more hedonic consumers valued convenience (e.g., time savings and service quality) and felt that the use of internet banking enhances their social status more than less hedonic consumers. They seem to distinguish themselves from consumers using branch services and creating an overall modern image of themselves and a feeling of superiority as progressive consumers. More hedonic consumers also valued auxiliary

features more than their less hedonic counterparts. Although this service dimension can serve the purpose of being practically useful and reassuring, entertaining and funny aspects surpassed. In addition, personal finances, investment and exploration were expected to have a practical and utilitarian inclination and ought to have appealed to the less hedonic consumers. However, the results did not reflect that. More hedonic consumers have paid more attention also to these dimensions of internet banking services than the less hedonic consumers.

To sum up the findings of analysis, it is indicated that among internet banking users, two distinct consumer types can be distinguished. They were more hedonic consumers, who like to be “telepresent” and constantly seek for various ways to occupy themselves in internet banking, and less hedonic consumers, who are functionally oriented and thus mainly interested in the core function of internet banking and its reliability. In particular, it was found that the more hedonic consumers expect more from internet banking than the less hedonic consumers. With the exception of security, the more hedonic consumers clearly perceived higher benefits of the proposed dimensions of internet banking and appreciated playful and entertaining service features. More hedonic consumers were found to be typically younger consumers with a lower income and a lower educational level and, hence may not appear as the most lucrative target market for banks. However, they will be the bank customers of tomorrow requiring diverse financial services.

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## 5 CONCLUSIONS

### 5.1 Summary of main results

The overall purpose of this study was to examine user perceptions in an internet banking context. User perceptions were analysed in three phases. The study was started by analysing the perceptions of the services by clustering the users on the basis of their pure perceptions without any moderating factors. Four clusters were identified and each cluster represented a user group with significant features. Suspicious users question the security and convenience dimensions of internet banking but find auxiliary features slightly useful. New technology is used quite unwillingly in general, and also, a suspicious user does not tend to emphasise personality features with the services used. An eager user perceives all the proposed dimensions positively, although feeling slight uncertainty when operating in internet banking. Attitudes toward new technology, exciting lifestyle and experiences breaking the daily routines are considerably more positive than with other customer roles.

The reluctant users represent the opposite behaviour to the eager users. Reluctant users perceive internet banking as inconvenient and do not value the benefit of enhanced social status or the usefulness of auxiliary features. Only the security dimension is recognised as positive. Respectively, the practical users value the dimensions of convenience and security the most. They seem to take advantage of the service utility whereas auxiliary features, personal finances, investment and exploration gained negative evaluations by the practical. They experienced new technology almost as positively as the eager users do, and the practical users also express quite favourable attitudes toward excitement and unexpected experiences in life. This user group is the most convinced of its capabilities to control chaos.

Next, the effect of user familiarity on perceptions was examined. Three user groups were identified, i.e. highly familiar users, moderately familiar users and low-familiar users. Significant differences in perceptions were found regarding four of the proposed dimensions. Of these status, personal finances and investment turned out to be U-shaped, which means that moderately familiar users had the lowest perceptions compared to the other two. The auxiliary features were perceived as

linearly decreasing as familiarity increased. Convenience, security, and exploration had no significant correlation with familiarity.

Finally, the other consumer characteristic, hedonic-orientation, was scrutinised. It was proved that the user's consumption orientation affects user perceptions, i.e. more hedonic consumers differ from less hedonic consumers also in a utilitarian service context. More hedonic users perceived clearly higher benefits of the proposed dimensions in comparison to their less hedonic counterparts. They also appreciated the playful and entertaining service features. Security was the only dimension where user groups did not differ from each other.

## 5.2 Theoretical contribution

This dissertation contributes to various theoretical discussions. Firstly, it participates in the broad and, considering the topical trend in banking, significant research stream of SST. The user generation is changing and all the users will ultimately belong in the generation that has grown up with the internet without any experience of bank service based on face-to-face encounters with the bank personnel. Their expectations and requirements will differ dramatically from the previous generation. The utilitarian nature of internet banking was emphasised in the cluster analysis. Experiential features were not greeted with applauses and excitement with the exception of one user cluster, namely the eager consisting of mainly young users, who are going to be the customers of tomorrow. Similar findings have been presented by e.g. Bauer et al. (2005) in their assessment regarding the quality factors of internet banking portals. Factors like enjoyment and entertainment were identified in the portal context. Further, the hedonic-orientation has been found to cause negative effects on the adoption of internet banking (Lassar et al., 2005; Ndubisi and Sinti, 2006; Gounaris and Koritos, 2008) supporting the general perceptions of users also in this research. However, the exception of the eager confirms the rule and opens a path to the other direction.

It was also interesting to find that the social dimension appeared clearly in this SST context in the form of status (cf. Solomon et al., 1985; Bitner et al., 1990; Grove and Fisk, 1997; Gerrard and Cunningham, 2003). Further, there were signs of change in the perception of convenience. Convenience in its traditional meaning turns into a matter-of-fact when users become habituated with the medium and start requesting for more, thus convenience must be reconceptualised (cf. Meuter et al., 2000; Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003; Poon, 2008).



Secondly, this research contributes to the academic discussion of consumer knowledge. Although use experience and familiarity have been studied in internet banking, the studies have neglected the moderating user group by concentrating only on novices and experts (cf. Erikson et al., 2005; Lassar et al., 2005). Thus the U-shaped form of perceptions regarding three dimensions of internet banking services has not been established before. Also outside the internet context, similar findings have not noticeably been made before. Further, one interesting finding was that security does not seem to be an issue after the decision of adopting the service has been made (cf. Flavián et al., 2004; Akinci et al., 2004; Shih and Fang, 2006; Mavri and Ioannou, 2006; Hernandez and Mazzon, 2007; Durkin, 2007). This finding was valid in all analyses, but especially, it is noteworthy when the level of familiarity with the service did not have a significant effect.

Thirdly, findings from the internet banking context relating to customer orientation and experiential dimensions affirm, enlighten and structure the views presented a quarter of a century ago by Holbrook and Hirschman (1982). Consumption tendency is a valid and effective construct independently of the service environment, although it became evident in different ways than in previous studies (cf. Lassar et al., 2005; Ndubisi and Sinti, 2006; Gounaris and Koritos, 2008). The perceptions of more hedonic consumers differed significantly from their less hedonic counterparts. Finally, the research provides insights on the principles of segmentation. The innovative use of essential and relative segmentation bases still holds a strong position in marketing thought and marketing strategy. The results are summarised in Table 8.

**TABLE 8.** Summary of the results of the research

<p><b>PHENOMENON OF INTEREST</b></p>	<p><b>CONTRIBUTION REGARDING USER PERCEPTIONS OF INTERNET BANKING</b>  Versatile analysis regarding user perceptions of convenience, security, status, auxiliary services, personal finances management and exploration.</p>	
<p><b>SEGMENTATION APPROACH</b></p>	<p><b>CONTRIBUTION REGARDING SEGMENTATION IN INTERNET BANKING</b>  Suspicious – negative perception of security, lowest perception of convenience, the only positive perception on auxiliary services  Eager – highest positive perceptions regarding five of the proposed dimension, second lowest perception on security dimension  Reluctant – the only positive perception regarding security, most negative perceptions in dimensions of status, auxiliary features, personal finances and exploration  Practical – highest positive perceptions on dimensions of convenience and security, negative perceptions on auxiliary features, investment and exploration</p>	
<p><b>CONSUMER CHARACTERISTICS</b></p>	<p><b>CONTRIBUTION REGARDING FAMILIARITY IN INTERNET BANKING</b>  highly familiar users, moderately familiar users, low-familiar users</p> <ul style="list-style-type: none"> <li>• status, personal finances, investment: U-shaped</li> <li>• auxiliary features: linear decrease</li> <li>• convenience, security, and exploration: no significant correlation</li> </ul>	<p><b>CONTRIBUTION REGARDING HEDONIC-ORIENTATION IN INTERNET BANKING</b>  more hedonic consumers:</p> <ul style="list-style-type: none"> <li>• clearly perceived higher benefits of the proposed dimensions</li> <li>• appreciated playful and entertaining service features</li> </ul>

The findings of this research can be reflected upon and discussed also within the arising theoretical discussion considering the reversal of customer roles as well as customers as active, operant resources in the value creation process (e.g. Vargo and Lusch, 2004, 2008; Lusch et al., 2007).

### 5.3 Managerial implications

Each partial publication has its own specific managerial implications to offer. The findings of this dissertation will help managers to design and develop new market offerings to customers, after conceptualising their target consumers. On the basis of Article I, it is justified to suggest two different development possibilities: the first one is to concentrate on the core function of internet banking and design the services in question to be as simple and practical as possible. This is the most cost-effective way to proceed with internet banking services; this is where the interest of banks and current consumers as maintainers converge. The second possibility is to adopt a more future-oriented approach and to invest in developing internet banking services that satisfy the needs of a growing consumer cluster of youngsters, who are the prospects of tomorrow. They are used to operating in the vivid and entertaining world of internet, and thus, it is reasonable to argue that they will require these elements along with the practical utilitarian service dimensions. It must be emphasised that while the basic services must be provided with absolute quality and efficiency, one should also have a long-term orientation and develop features in accordance with changing consumer expectations.

On the basis of the analysis in Article II, familiarity could easily be used for market segmentation (c.f. Johnson and Russo, 1984; Rao and Monroe, 1988). Banks have readily available information about the length and frequency of internet banking to segment their customer base. An assortment of financial services as well as marketing strategies can then be provided to customers with varying levels of familiarity. Further, since customers with differing levels of familiarity have different kinds of perceptions of internet banking, the possibility to personalise the services according to their personal needs, would assure a higher level of customer satisfaction.

Article III proved that more hedonic consumers (or consumers who prefer more experiential consumption) is a useful concept that may help redefine traditional demography-based consumers due to their diverse perceptions of service dimensions. Internet usage is expanding along with consumers' computer and internet literacy.

The consumer generation is also changing and the majority of bank customers in developed western countries will grow up as internet users.

Current bank sites are homogenous for the most part (in design, layout, and navigation) and technological sophistication appears to be uniformly applied to all sites regardless of the task required by the user (c.f. Lassar and Dandapani, 2003). The results of this study suggest that users prefer specific attributes in some categories of sites as opposed to others. Banks can increase satisfaction of online customers by improving and developing user interfaces allowing easier, more convenient and enjoyable use experiences (c.f. Pikkarainen et al., 2006) and by personalisation, which takes into account the divergent needs of different user segments (c.f. Easingwood and Stoney, 1996). Managerial focus on the proposed dimensions of internet banking services' direct antecedents of service quality – speed, reliability, enjoyment, and control – may be needed. For existing users, service providers should emphasise these factors in their internet banking service design and promotions to improve customer evaluations of service quality. Perceptions of an enjoyable service encounter can be managed by incorporating interesting features into the service design to make the utilisation of the service more interesting and entertaining, which influences the satisfaction perceived by the customers.

One possibility is to allow users to personalise the welcome page after they have successfully logged on. For instance, it is likely that most of the users repeatedly perform the same transactions. By allowing the users to customise the pages for example on the basis of their usage (c.f. Methlie and Nysveen, 1999; Pikkarainen et al., 2006), the users can immediately gain access to the options they are likely to use most often, thereby increasing the speed of the transactions, perception of convenience of the service and their enjoyment during the service encounter. Users of more sophisticated banking services would prefer a different user interface compared to a user of simple basic banking services. Service providers should recognise that by improving the consumer's perception of perceived value, they not only influence their likelihood of continued usage but also their satisfaction. Although this study did not consider users' quality perceptions or value perceptions as such, the previous discussion proves that perceptions of suggested dimensions of internet bank services do have an influence on these higher constructs at the basic level (c.f. Shamdasani et al., 2008).

## 5.4 Evaluation and limitations of the research, suggestions for the future

The purpose of this doctoral dissertation was to examine user perceptions of internet banking services and define user segments on the basis of the perceptions. Additionally, every report representing the results from a research experiment must include an assessment of the quality of the conducted study, so that readers can evaluate whether the study has achieved its purpose, i.e. do the results provide answers to the established research questions, how well they actually answer them and how useful are the acquired results. There are two decisive concepts to take into consideration when conducting research and evaluating the quality of the study: reliability and validity.

### 5.4.1 Reliability

Reliability is the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials (Carmines and Woods, 2005). Reliability is defined as the “accuracy or precision of a measuring instrument” (Kerlinger, 1980, 443). Thus, reliability refers to the degree to which a measure is free of variable error. The most common way to assess the reliability of the measurement instrument is to evaluate the internal consistency of items in a scale. Internal consistency is the degree of homogeneity among the items that constitute a measure. That is, the degree to which the items are interrelated and measure a single trait or entity (Brown 1970). Internal consistency is determined by a statistical examination of the results obtained, typically equated with Cronbach’s coefficient alpha. Cronbach’s alpha measures true variance over total variance. In this dissertation, Cronbach’s alpha is used to determine the reliability of the scales and results. According to Nunnally’s (1978) common guideline, an acceptable range of alphas is between 0,50 and 0,90. Alpha standards of reliability are 0.5–0.6 for early stage research, 0.7–0.8 in basic research, and 0.8–0.9 in applied settings (Nunnally, 1978). Thus, the results can be considered as good or at least acceptable. It is important to remember that reliability is not measured, it is estimated.

### 5.4.2 Validity

Validity is the degree to which an abstract concept is accurately measured (McDonald, 2005). Validity is concerned with whether the findings are really what they appear to

be; validity is the extent to which the measures give the correct answers (Saunders et al., 2003). Validity refers to the extent to which an instrument measures what it claims to or is intended to measure. In general, two types of validity can be identified: internal validity, which refers to the extent to which there are factors other than the independent variables that could cause an observed change in the dependent variable, and external validity, which means the generalisability and applicability of the results to the general population (e.g. Campbell and Stanley, 1966; Carmines and Zeller 1979). Thus, external validity refers to the extent to which the research results can be generalized to other settings, occasions, and populations. The results of this research can be generalised to other internet-based services to some extent, but outside of this context, generalisations must be made carefully. The population should not cause limitations since the data were collected from a representative sample of Finns. Nevertheless, internal and external validity are not in themselves detailed definitions of validity.

More specifically, while assessing the validity of this research, content validity and construct validity are utilised. Firstly, content validity is concerned with the degree to which the scale items represent the domain or the universe of the concept studied (Bearden et al., 1993; Davis, 2005). In this study, the degree of content validity was increased by carefully planning the questions on the basis of literature and pilot-testing the survey instruments. Specific attention was given to the wording of survey statements and questions. Secondly, construct validity stands for the degree to which the scale represents and acts like the concept being measured (Davis, 2005), i.e. is concerned with the relationship between the measure under consideration and theoretical expectations on other measures (Carmines and Woods, 2005). Construct validity consists of two components: discriminate validity and convergent validity. In order to evaluate the former one, a thorough review of the literature was undertaken to justify theoretical assessment, and also, an analysis of correlation was conducted. Correlations of internet banking dimensions varied between 0,564 and -0,075, and thus, discriminate validity is attested. The latter, convergent validity, can be assessed via internal consistency by the correlations among items constituting the scale, on the basis of the strength and significance of each item, or by using generally accepted, used, and proven valid scales in the field (Karjaluoto et al., 2008). In order to ensure the convergent validity, the latter way was utilised. This research was conducted by obeying the principles of modern empiricism, which state that absolute perfection in measurement cannot be achieved but it can be argued that all the measures used exhibit reliability and validity to an established extent.

### 5.4.3 Limitations and directions for the future

Like in any empirical research, this dissertation has certain key limitations that must be considered before further implications or generalisations can be suggested. Firstly, this dissertation is limited to a user perspective. The inclusion of a service provider perspective would provide new insights to the issue, but in the scope of this research, this limitation is arguable. Secondly, this research only investigated the current users of internet banking, and thus, non-users and their perceptions were left outside of the analyses. For future research, it would be interesting to include also non-users to the analyses. Although the non-users are not able to answer the questions as accurately as the actual users, the reasons for why they are not using internet banking is an issue worthy of conducting a study. This has been done to a certain extent (e.g. Lee et al., 2005; Ozdemir et al., 2008), but a broader approach to the issue, like this research has represented, would prove to be enlightening. Thirdly, this research is context-driven. The phenomenon of interest is examined within the context of internet banking, and the generalisation of the results must be done carefully.

The major limitation of this research is undeniably the research design, and due to that, the data. All constructs were measured in the same survey conducted during the same short period of time. Although the common method bias was minimized through survey design (e.g. all questions were separated and their order in the questionnaire was mixed), its' influence can be fully excluded only by conducting a longitudinal survey. Albeit quantitative analysis proved to be a good basis for examining user perceptions, for the future it would be useful to expand and deepen the results with more qualitative data. The qualitative part of this research was conducted with a fairly narrow scope especially concerning explorative interviews and their interpretation. The interviews were analysed by simply quantifying the data and categorising it roughly into themes. However, the role of exploratory interviews as a preliminary study must be emphasised. New and more profound qualitative research would be a fruitful endeavour. As a result, more versatile analyses could be conducted and broader conclusions drawn. Also a new quantitative study with a redesigned questionnaire would provide bases for modelling and stronger commitments. One important limitation concerns the statistical methods used. User perceptions could be tested with confirmatory factor analysis, which should follow a structural equation modelling. It would be a logical and advanced step from this exploratory study. Unfortunately, the design of the research variables measuring

user perceptions turned out to be deficient in that sense, and thus, the quality of the data did not allow for finer analyses.

In addition, interesting and challenging theoretical discussions such as value-in-use and customer roles in the service production process have emerged in the marketing literature, and without a doubt, they would be worth taking into account. The dominating paradigm in marketing is changing towards service-based logic, and thus, it would be useful to expand and rebuild the approach accordingly.



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PART II  
PUBLICATIONS



# Clustering the consumers on the basis of their perceptions of the Internet banking services

A reprint of an article published in  
*Internet Research*

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## **Reference to the original publication:**

Mäenpää, K. (2006). Clustering the consumers on the basis of their perceptions of the Internet banking services. *Internet Research*, 16 (3), 304–322.

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## **Abstract**

The purpose of the paper is to explore Internet banking services (IBS), consumers availing the services and the potential development possibilities of the services in the challenging operational environment. On the basis of exploratory interviews, previous Internet banking studies and relating literature, seven dimensions of IBS ranging from very practical to more hedonic are developed and explored. The users of IBS are examined by clustering them on the basis of differences in perceptions of the proposed service dimensions. Data set comprised of 300 computer-supported interviews. The major finding is that three of the consumer clusters do not value service dimensions containing experiential features, whereas the fourth cluster, comprising mainly of youngsters, perceived those service dimensions very appealing. Two alternative approaches are suggested to the developing and designing IBS. The cost-effective strategy for serving currently profitable customers is to adhere to basic IBS that they prefer. However, designing versatile and experiential IBS might prove to be lucrative investment for the future. The biggest consumer cluster comprising of youngsters, potential bank customers of tomorrow, preferred more diversified and even entertaining features. The study represents strategically interesting viewpoints to design and develop IBS in order to achieve optimal results in the future.

## Introduction

Inspecting the conditions facing the contemporary retail banking and financial services, Dawes and Brown (2000), concluded that traditional marketing thinking does not meet the requirements of changing consumer behaviour and operational environment. According to Vargo and Lusch (2004), the distinctions between providers and users are blurring and consumers appear as co-producers as products and services transform into mutual processes. The increasing role of the Internet as a service channel has removed the locus of power from service providers to consumers, and therefore, collaboration with and learning from consumers as well as adaptation to their individual and dynamic needs have become crucial. This involvement of the consumers in the production/consumption process requires re-evaluation of traditional segmentation principles as a base for service development and other marketing actions. The concept of segmentation, one of the essential ideas in marketing discipline, has evolved over time.

The concept was introduced in the 1950s (Palmer and Millier, 2004) and by the end of 1980s several segmentation principles with numerous methods to conduct segmentation were introduced (Beane and Ennis, 1987; Tynan and Drayton, 1987). However, Haley (1968) questioned the blind adherence to the process of segmentation relying on purely descriptive factors of consumers and suggested benefit segmentation as a tool in identifying factors with a causal relationship to future purchase behaviour. Contemporary operative environment requires sophisticated and sensitive segmentation methods, and segmentation has to keep abreast of new challenges in order to maintain its vitality as a tool for marketing. In order to have a more nuanced understanding of consumers, a post hoc clustering method of benefit segmentation has been utilised in this research.

In several studies (Alfansi and Sargeant, 2000; Machauer and Morgner, 2001; Beckett et al., 2000) the effect of technology has come up as an essential dimension of the financial service encounter and Internet banking has proved to be a crucial part of banks' delivery channel strategy (for a detailed summary of Internet banking related studies see, Akinci et al., 2004). As the adoption and usage of Internet banking services (IBS) increases, a certain maturation point will be reached in the following years. Therefore, basic IBS will no longer provide advantage as a differentiation factor from competitors and additional service features will gain in importance. Hence, the purposes of this article are:

- to examine the dimensions of IBS in order to broaden the approach to more experiential perspective;
- to identify consumer clusters formed on the basis of their perceptions of suggested IBS dimensions;
- to examine the characteristics of these consumer clusters; and finally
- to suggest managerial implications.

## Literature review

Since, its conception in the 1950s, for almost two decades market segmentation was studied and put into practice in various consumer and industrial markets. However, finan-

cial service providers began to capitalise its potential only from the early 1970s (Anderson et al., 1976; McKechnie and Harrison, 1995). Decades have not eroded the vitality of the original definition of segmentation:

...viewing a heterogeneous market as a number of smaller homogeneous markets, in response to differing preferences, attributable to the desires of consumers for more precise satisfaction of their varying wants (Smith, 1956, p. 5).

The strength of this definition derives from a genuine heterogeneity in consumer needs and wants across segments.

It has been argued (Frank et al., 1972; Loudon and Della Bitta, 1984; Baker, 1988; Kotler, 1988) that in order to be viable, segmentation should meet certain conditions. Following criteria are widely accepted as tools to assess the viability of segmentation:

- identifiability;
- substantiality;
- accessibility;
- stability;
- responsiveness; and
- actionability

Each potential segment should correspond to these requirements before distinct marketing operations are designed and directed according to them. In the increasingly competitive environment a well-planned segmentation enables banks to better understand and serve their customers (Meadows and Dibb, 1998a). A diverse customer base, where various needs and individually differing buyer behaviour challenge marketer's capabilities and well-developed tools that can deliver success are required (Meadows and Dibb, 1998b).

The accomplishments of segmentation in the financial sector have been well documented (Gwinn and Lindgren, 1982; Speed and Smith, 1992). In their critical review of financial services segmentation, Speed and Smith (1992) divided published researches into a priori and post hoc studies. A priori stands for analysis where decisions concerning segmentation principles is made before-hand according to the norms of consumer behaviour literature. This approach is the most widely used by researchers who use demographic information to determine the size and character of segments. The less widely used post hoc method does not define the number and type of segments in advance. Rather, segmentation principles are determined from the clustering of respondents according to their responses to particular concepts (Wind, 1978; Meadows and Dibb, 1998b).

Machauer and Morgner (2001) argue that the a priori segmentation methods currently employed in segmentation of bank markets have only little predictive power and hence, post hoc segmentation methods should be preferred. Benefit segmentation is probably the most widely used of the post hoc methods and its importance is well established in the literature (Tynan and Drayton, 1987; Loker and Perdue, 1992; McDougall and Levesque, 1994; Minhas and Jacobs, 1996). As Haley (1968, p. 31) argues:



It is the benefits which people are seeking in consuming a given product (which) are the basic reasons for the existence of true market segments.

In other words, consumers are classified according to their different requirements and therefore, segments are defined by somewhat causal factors. Benefit segmentation assists in developing products and services that reflect the actual needs and wants of consumers. It serves as a blanket term as the concept of benefit is used in a relatively broad sense. This conceptual variability can be found quite characteristic for several benefit segmentation studies but this does not thwart the usefulness of the method. For example, Machauer and Morgner (2001) combine different attitudinal dimensions to expected benefits and classify this method as a form of benefit segmentation. In the same vein, this research is conducted in the spirit of benefit segmentation even though a concept of dimension is preferred to benefit.

So far, few studies have specifically addressed the issue of benefit segmentation in the financial service sector (Minhas and Jacobs, 1996). The majority of these have focused on a comparatively small number of benefit related variables, initial selection criteria (Denton and Chan, 1991; Kaynak and Kucukemiroglu, 1992; Laroche and Taylor, 1988), dimensions of service quality (McDougall and Levesque, 1994; LeBlanc and Nguyen, 1988) and product-specific features (Burnett and Chonko, 1984). Calantone and Sawyer (1978) found that consumers' perceptions of benefits are quite permanent by repeating the research after two years. No notable changes occurred and hence, it can be claimed that benefit segments are relatively stable.

The discriminating power of benefit segmentation varies and it depends on the variables used in segmentation. For example, Alfansi and Sargeant (2000) identify eight bundles of benefits and after cluster analysis three segments are introduced: those that focus on relationships, those that are cost-sensitive and those that focus on service. However, disappointingly, the study has been unable to establish strong links between desired benefits and demographics. In contrast to Alfansi and Sargeant (2000), Machauer and Morgner (2001) generates four clusters based on attitudinal dimensions, which turns out to be superior in their homogeneity and profiled customers referring to demographic differences, i.e. the segments have strong discriminating power. It is obvious then that the application possibilities of descriptive variables must be evaluated individually on a case-by-case basis. What matters in terms of conceptual clarity is that both studies are represented under the heading of benefit segmentation even though the previous combines both attributes and benefits whereas the latter uses benefits derived from attitudinal dimensions.

As it is evident that traditional a priori segmentation and profiling tools are insufficient to identify consumer segments differing in their perceptions and experiences of IBS, a clustering-based post hoc method has been utilised in order to provide information for marketing procedures as well as product and service development.

## Research methodology

The study has been conducted in three phases. First, the key research themes and issues for the study were generated through elaborate open-ended exploratory interviews of 11 active users of IBS. Second, an extensive literature review was conducted and the outcome was compared to the results of exploratory interviews. This exercise supported the

setting of the guidelines for the questionnaire. The questionnaire was pilot tested with 20 undergraduate marketing students. The third phase, a quantitative study, involved data collection that was carried out as a part of a nation-wide consumer survey using personal interviews.

Quota sampling provided representative data of the Finnish population of 15-74 year olds. The data consisted of 1,031 computer-supported interviews made in consumers' homes. Of these, 300 consumers were active users of Internet banking and built the data set used. This agrees with the penetration rate of IBS in 2001 when the data were collected. Age, education and income distribution of the data corresponds to related studies of Internet banking users in Finland (Finnish Bankers' Association, 2004; Karjaluoto et al., 2002; Pikkarainen et al., 2004).

Altogether 22 statements measured the dimensions of IBS. As part of the study, questions about consumers' background information and statements measuring personal features were generated. The features were derived from the investigation of post-modern consumers by Firat and Shultz (1997, 2001). The participants respond to each statement indicating their level of agreement and disagreement using five-point Likert-scale 1-5.

### *Dimensions of IBS*

The statements represented seven dimensions of IBS:

- (1) convenience;
- (2) security;
- (3) status;
- (4) auxiliary features;
- (5) personal finances;
- (6) investment; and
- (7) exploration.

These dimensions reflect the results from exploratory interviews and literature review. Each dimension was condensed to one variable using one factor principal component analysis that practically corresponds to generating sum variables. Cronbach as of the dimensions varied between 0.558 and 0.754 (see Appendix). According to Nunnally (1967), an acceptable range of as is between 0.50 and 0.80, and thus, the results can be considered as good or at least acceptable. In this study:

- *Convenience* in IB context involves saving time and increasing service efficiency as compared to branch banking. It can be conceptualised as relative advantage of adopting the new service channel (Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003). Convenience, viewed as time savings, 24/7 access and service quality, is one of the most cited beneficial features of IB (Daniel, 1999; Liao and Cheung, 2002). It is one of the dominating factors in transaction channel preferences (Ramsay and Smith, 1999) and a key determinant of consumer satisfaction (Yang et al., 2003). Convenience is valued by IB consumers as people are prone to prefer more leisure-time and to dedicating less time to financial matters (Devlin, 1995) ( $\alpha = 0.643$ ).

- *Security* refers to the reliability of IB and an overall belief on the part of the user that banking transactions can be completed confidentially and safely. According to Polatoglu and Ekin (2001), security comprises of three dimensions – reliability, safety, and privacy. Consumers’ concerns about security, which arise from the use of an open public network, have been emphasised as being the most important factor inhibiting the adoption and use of IB (Sathye, 1999; Daniel, 1999; Cox and Dale, 2001; Howcroft et al., 2002). Security issues have been identified as significant determinants of IB quality (Liao and Cheung, 2002; Jun and Cai, 2001) ( $\alpha = 0.558$ ).
- *Status* reflects the perceived social significance of practising IB as a means to express and enhance one’s self-concept. This discussion can be traced back as far as Grubb and Grathwohl (1967) review on self-theory and symbolism. As a dimension of social desirability, status measures the impact of IB use on self-image (Gerrard and Cunningham, 2003). This dimension implies to impression management, i.e. by consuming certain products or services consumers strive to influence their image in the eyes of other consumers (Holbrook, 1999). The intention here is to probe whether consumers perceive the use of IB affecting positively on their social status and self-concept. We contend that while consumers often use products and services for impression management (products as responses), products may also be used for self-definition (products as stimuli) (Solomon, 1983) ( $\alpha = 0.602$ ).
- *Auxiliary features* refer to attributes that can be designed into the Internet bank in order to improve the overall augmented product. For example, voice effects, virtual figures, and search agents can be added to improve the usability and interactivity of IB, thus enhancing user-friendliness and reducing the perceived risk. These features often contribute to multimedia friendliness (Waite and Harrison, 2004). Dholakia and Rego (1998) argue that pictures, multi-media capabilities and enhancements that enable complex and interactive messages help create an interesting electronic environment, thus enhancing the overall quality of the Internet experience. Auxiliary features contribute to experiential value by increasing efficiency, enjoyment, visual appeal and entertainment aspects of IB (Mathwick et al., 2001) ( $\alpha = 0.643$ ).
- *Personal finances* constitute features that are useful when managing personal accounts and conducting online transactions. A calculator for assessing savings possibilities or providing tools for compiling charts and consolidating figures for account transactions are practical augmented services. Zhu et al. (2002) suggest that such multifunctional capabilities are important features underlying the quality of customer experience. Jun and Cai (2001) cite the compatibility of IB with software like Microsoft Money and Intuit Quicken as examples of effective money management tools. They considered compatibility as an important determinant of “ease of use” ( $\alpha = 0.754$ ).
- *Investment* refers to practical devices and advice that could assist and support in investment activities. Providing savings and investment services is an important

part of banks' product mix (Minhas and Jacobs, 1996; Ullengin, 1998; Beckett et al., 2000; Lee, 2002). Investment services are high involvement products (Aldlaigan and Buttle, 2001), and thus constitute an important part of IB services. Examples of investment attributes are an online investment course on the bank's web site, availability of real-time investment information, and personal purchase recommendations. Investment attributes also include the offering of tailored personal service and customised interactions otherwise lacking in online services (Mattila et al., 2003; Long and McMellon, 2004) ( $\alpha = 0.617$ ).

- *Exploration* refers to "exploratory information seeking" as defined by Baumgartner and Steenkamp (1996). Exploratory consumer behaviour involves intrinsically motivated consumption processes that can be divided into two distinct dimensions: exploratory acquisition of products and exploratory information seeking (EIS) (Baumgartner and Steenkamp, 1996). The relevant conceptualisation for this study is the EIS. Obtaining consumption-relevant knowledge out of curiosity includes activities like reading the daily news on the bank's site, while EIS in terms of browsing and window-shopping involves probing the various links on the site. Joining virtual discussion groups in order to exchange opinions about banking issues with other consumers also falls under EIS. While engaging in exploratory and curiosity-driven browsing, the consumers' probability of exposure to advertising and other marketing communication tends to increase (Raman, 1997) ( $\alpha = 0.670$ ).

## Data analysis and results

### *Consumer clusters*

In order to identify homogeneous consumers clusters with the same kinds of perceptions and opinions of IBS, a non-hierarchical K-means cluster analysis was performed on the basis of the seven dimensions of IBS represented above. Clustering based on individual perceptions and opinions of IBS was preferred because present-day consumers are unwilling to settle to conventional a priori segmentation (Dawes and Brown, 2000). It is crucial to identify consumers' personal tendencies to value different dimensions of IBS and the purposes of these services for each consumer individually. Thus, a better compatibility with the requirements set by prevailing operational environment facing the banks is achieved. The results are shown in the following table.

Table I. Consumer clusters

	SUSPICIOUS n=48 (16%)	EAGER n=115 (38 %)	RELUCTANT n=78 (26%)	PRACTICAL n=59 (20%)
CONVENIENCE	-0,92	0,43	-0,68	0,82
SECURITY	-1,42	0,14	0,30	0,48
STATUS	-0,36	0,67	-0,78	0,03
AUXILIARY FEATURES	0,11	0,72	-0,74	-0,50
PERSONAL FINANCES	-0,48	0,82	-0,69	-0,29
INVESTMENT	-0,29	0,76	-0,52	-0,54
EXPLORATION	-0,21	0,86	-0,70	-0,57

The first consumer cluster comprised of 48 (16 per cent) consumers having the most sceptical attitude towards IBS: they are the only group that represent a negative cluster centre value regarding security dimension. They disagree about the privacy that IBS ought to offer, i.e. they have doubts about the safety of information processing in banking transactions and they think that mistakes will occur more easily in IBS than at a bank office. Consequently, this cluster is named the suspicious. Auxiliary services are the only dimension that gained positive value. It provides features that help and assist the usage of IBS by contributing to more assuring and thus, more pleasant usage experience. The suspicious have quite negative perceptions of IBS and they turn out be the cluster, which has the lowest value in the convenience dimension. That illustrates fairly well their initial stance towards IBS given that convenience is the feature that has been regarded as one of the unquestionable strengths of Internet services in general.

The second consumer cluster with 115 (38 per cent) members represents almost a total opposite of the suspicious. Their perceptions of IBS dimensions are all quite positive; they have the highest cluster centre values in five dimensions of IBS. Hence, this cluster is named the eager. They are the only consumer group gaining positive values regarding dimensions of personal finances, investment and exploration and also, finding auxiliary features appealing to them. The eager have the second lowest value in security dimension and although the value is positive, it is reasonable to argue that they feel a bit uncertain and insecure when conducting their bank transactions on the Internet. Convenience achieves the second highest value in this cluster. Further, they experience that the usage of IBS enhance their social status by differentiating them from consumers using traditional bank services.

Altogether 78 (26 per cent) consumers formed the third cluster that is named the reluctant due to their very unambiguous attitude towards IBS. The only reason why they seem to use IBS is that they rely on the security dimension, which is the only dimension

gaining positive value. Also, it is the second highest value in comparison to other consumer clusters. The reluctant have the most negative perceptions in dimensions of status, auxiliary features, personal finances and exploration. In other words, they do not experience any kind of social appreciation in the usage of IBS, nor do they value any kind of entertaining features of the services. Besides, dimensions of convenience and investment receive negative valuations.

Characteristic of the fourth cluster with 59 (20 per cent) consumers is their practice-oriented perception of IBS. They have the highest value in dimensions of convenience and security, whereas their perceptions of auxiliary features, investment and exploration are negative. They prefer Internet services to bank office services because the required information is more easily available on the Internet, the quality of services is better and as a consequence of using IBS, they have more time to spend with their families, friends and hobbies. In addition, if they need advices from bank personnel, they prefer to use e-mail apposed to visiting bank office. Consequently, this cluster is named the practical. They think that IBS are safe to use and privacy issues are maintained when using these services. They also have confidence in themselves when conducting bank transactions on the Internet; they are not afraid of making mistakes. The practical are the other consumer cluster with the eager, who perceive the status dimension as slightly positively.

#### *Cluster profiles*

The identified consumer clusters differ from each other regarding the basic demographic variables of age and education, whereas there are no statistically significant differences in gender or annual incomes. The z-values in Table II indicate the pivotal differences between expected and realized numbers of consumers in each category (for the calculation formula see Agresti and Finlay (1997, pp. 261-2).

Table II. Demographics of consumer clusters

		Consumer characteristics % within clusters				$\chi^2$
		SUSPICIOUS n=48 (16%)	EAGER n=115 (38 %)	RELUCTANT n=78 (26%)	PRACTICAL n=59 (20%)	
GENDER	female	60,4 (1,47)	48,7 (-0,54)	43,6 (-1,45)	55,9 (0,90)	4.22
	male	39,6 (-1,47)	51,3 (0,54)	56,4 (1,45)	44,1 (-0,90)	
AGE	under 25 years	18,8 (-0,42)	<b>33,9</b> (3,98)	<b>7,7</b> (-3,65)	15,3 (-1,21)	<b>26.56</b>
	25-34 years	31,2 (-0,17)	29,6 (-0,74)	33,3 (0,24)	37,3 (0,91)	
	35-44 years	29,2 (0,72)	20,0 (-1,45)	25,6 (0,17)	30,5 (1,09)	
	over 44 years	20,8 (-0,15)	16,5 (-1,57)	<b>33,3</b> (3,17)	16,9 (-0,98)	
EDUCATION	comprehensive school	8,3 (-1,17)	<b>23,5</b> (3,59)	10,3 (-1,11)	<b>3,4</b> (-2,57)	<b>32.74</b>
	secondary school	25,0 (-1,77)	43,5 (1,86)	30,8 (-1,29)	39,0 (0,47)	
	college/polytechnics	<b>47,9</b> (2,10)	<b>26,0</b> (-2,26)	35,9 (0,29)	39,0 (0,78)	
	university	18,4 (0,71)	<b>7,0</b> (-2,92)	<b>23,1</b> (2,40)	18,6 (0,79)	
ANNUAL INCOME	under 20 000 €	15,2 (-0,69)	<b>25,2</b> (2,08)	12,0 (-1,77)	19,3 (0,09)	13.01
	20 000-33 500 €	21,8 (-1,11)	34,0 (1,56)	29,3 (0,19)	22,8 (-1,06)	
	33 501-47 000 €	39,1 (1,37)	<b>20,4</b> (-2,83)	34,7 (0,89)	36,8 (1,14)	
	over 47 000 €	23,9 (0,33)	20,4 (-0,52)	24,0 (0,47)	21,1 (-0,21)	
z-values in parentheses 5% significant values represented in bold						

There are no differences in the gender distribution. Young consumers, i.e. those under 25 year-olds, do not belong to the cluster of reluctant or suspicious but rather to the eager. Also, there is more over 44 year-olds in the reluctant cluster than it was expected. A look to the educational differences between the clusters reveals that higher degree educated are accentuated in the clusters of suspicious and reluctant. Most of the suspicious have college/polytechnic degrees whereas university degrees are more common among the reluctant than in other consumer clusters. Consumers with poor education belong mostly to the eager cluster, while the amount of comprehensive school degrees is the smallest among the practical. Finally, even if cross-tabulation does not reveal statistical differences in annual income, z-values brought out interesting information about income levels. Annual incomes are the smallest among the eager and this result is congruent with the distribution of education.

In order to gain a more profound picture of the consumer clusters, a further statistical analysis was conducted regarding the personal features of the consumers. The results are represented in Table III.

Table III. Personal features of consumer clusters

		Personal features % within clusters				$\chi^2$
		SUSPICIOUS n=48 (16%)	EAGER n=115 (38 %)	RELUCTANT n=78 (26%)	PRACTICAL n=59 (20%)	
I have always used willingly new technology in everyday chores.	complete disagreement	<b>12,5</b> (3,55) 20,8 (1,32) 10,4 (-0,51) 43,8 (0,22)	<b>0,9</b> (-2,03) <b>9,6</b> (-1,97) 10,4 (-0,92) 43,5 (0,32)	3,8 (0,10) 16,7 (0,58) 17,9 (1,63) 43,6 (0,26)	1,7 (-0,90) 16,9 (0,55) 11,9 (-0,21) 37,3 (-0,88)	<b>29,84</b>
	complete agreement	<b>12,5</b> (-2,42)	<b>35,7</b> (2,77)	<b>17,9</b> (-2,02)	32,2 (1,07)	
I think there must be excitement and adventures in life.	complete disagreement	8,3 (1,16) 14,6 (0,20) 14,6 (-0,02) 35,4 (-0,66)	<b>1,7</b> (-2,04) <b>5,2</b> (-3,36) 15,7 (0,38) 40,9 (0,34)	6,4 (0,66) <b>26,9</b> (3,96) 14,1 (-0,16) 38,5 (-0,25)	6,8 (0,70) 11,9 (-0,45) 13,6 (-0,27) 42,4 (0,47)	<b>29,67</b>
	complete agreement	27,1 (0,01)	<b>36,5</b> (2,93)	<b>14,1</b> (-2,98)	25,4 (-0,30)	
During my leisure time I look for strong experiences and impressions that help me to loosen from everyday life.	complete disagreement	10,4 (-0,58) 27,1 (0,19) 22,9 (0,97) 22,9 (-1,22)	8,7 (-1,75) <b>14,8</b> (-3,49) 19,1 (0,40) <b>39,1</b> (2,61)	<b>20,5</b> (2,29) 35,9 (2,32) 16,7 (-0,36) 23,1 (-1,62)	13,6 (0,14) 33,9 (1,54) 13,6 (-0,99) 28,8 (-0,28)	<b>30,41</b>
	complete agreement	16,7 (0,91)	<b>18,3</b> (2,30)	<b>3,8</b> (-2,72)	10,2 (-0,64)	
I want to emphasize certain features of my personality with the services I use.	complete disagreement	<b>50,0</b> (2,04) 20,8 (-1,61) 18,8 (-0,36) 8,3 (-0,42)	<b>20,0</b> (-4,81) 33,0 (0,70) <b>31,3</b> (3,59) 13,0 (1,39)	<b>53,8</b> (3,58) 26,9 (-0,83) 10,3 (-2,64) 9,0 (-0,35)	37,3 (0,05) 39,0 (1,55) 15,3 (-1,15) 6,8 (-0,92)	<b>35,74</b>
	complete agreement	2,1 (0,25)	2,6 (1,00)	0,0 (-1,34)	1,7 (0,02)	
It is important for me to belong to groups where people think in the same way that I do.	complete disagreement	<b>41,7</b> (2,05) 27,1 (-0,69) 10,4 (-1,38) 16,7 (-0,13)	<b>21,7</b> (-2,28) 29,6 (-0,52) 21,7 (1,59) 20,0 (0,96)	29,5 (0,03) 38,5 (1,58) 16,7 (-0,18) 14,1 (-0,88)	33,9 (0,86) 28,8 (-0,47) 15,3 (-0,47) 16,9 (-0,09)	<b>13,94</b>
	complete agreement	4,2 (-0,18)	7,0 (1,48)	1,3 (-1,65)	5,1 (0,17)	
I am capable to control disorder caused by several simultaneous events.	complete disagreement	<b>8,3</b> (1,88) 8,3 (-0,26) 10,4 (-1,32) 39,6 (-0,82)	<b>0,9</b> (-2,03) 6,1 (-1,52) 20,9 (1,41) <b>53,9</b> (2,45)	2,6 (-0,60) 11,5 (0,78) 20,5 (0,96) 43,6 (-0,29)	6,8 (1,42) 13,6 (1,24) 10,2 (-1,56) <b>33,9</b> (-1,91)	<b>24,82</b>
	complete agreement	33,3 (1,45)	<b>18,3</b> (-2,13)	21,8 (-0,76)	<b>35,6</b> (2,10)	

z-values in parenthesis

5% significant values represented in bold

Positive attitude towards new technology characterise the eager, whereas the attitude is negative among the suspicious. The statements measuring opinions about excitement and adventures in life generally and experience seeking especially during leisure time have a positive focus in the eager cluster. With regards to these consumer orientations, the reluctant represent the opposite tendencies. Personal propensity to emphasise certain personality features with the services used divide the clusters very clearly. Half of the suspicious and a bit over half of the reluctant disagree completely with this personal feature, as apposed to every fifth of the eager express a strong disagreement. Belonging to groups with similar thoughts is significantly unimportant for the suspicious, whereas a bit over 20 per cent of the eager articulated less extreme disagreement. Finally, as consumers ca-



pable to control disorder caused by several simultaneous events belong most likely to the cluster of suspicious, the eager are the opposite.

## Discussion

To enhance our knowledge of consumers' perceptions and opinions about IBS as well as in order to assess possibilities to employ benefit segmentation, seven dimensions of IBS with versatile and slightly experiential features have been investigated. In addition, four consumer clusters differing in regard to proposed dimensions have been identified and the consumer profiles in terms of basic demographic information and personal features have been analysed. The results reveal noteworthy differences in Consumer characteristics per cent within clusters valued IBS dimensions indicating that some of the proposed dimensions gain more importance to the consumers. Furthermore, the consumer clusters differ notably representing the usability of proposed post hoc segmentation procedure and the insights proposed by Vargo and Lusch (2004) are taken into consideration.

Perceptions of security and auxiliary features turn out to be intertwined in a way that implies a broader meaning for the latter one that is initially expected. It is estimated that auxiliary features of IBS, such as voice effects, virtual figures and search agents would be considered mainly entertaining and amusing experiential features with certain amount of practical importance. When analysing the responses of the dimension in relation to perceptions of security, it is found that the former can serve the purpose of being mainly reassuring. For uncertain and insecure consumers like the suspicious in this research, voice effect signals successful bill-payment, virtual agent helps in problem solving and search agent looks for useful information. More confident consumers like the eager, may form their opinions of these features on the basis of auxiliary features' which have confirmative and assisting nature as well as their entertaining aspects. Roughly speaking, almost half of the respondents do not value auxiliary features at all.

The results of cluster analysis clarify and refine the picture of consumers using IBS. The smallest cluster, the suspicious, is formed by consumers who question the security and convenience dimensions of IBS but find the auxiliary features slightly useful. A fifth of them is over 44 years old and quite highly educated. They are quite unwilling to use new technology in general and they are averse to emphasise their personality features with the services they use. In addition, they find it unimportant to belong to groups or communities with people having congruent thoughts. Also Alfansi and Sargeant (2000) found a cluster where security issues of banking in general were determinant.

The eager are the biggest cluster comprising of youngsters; over one third is aged less than 25 years. The eager perceive all the proposed dimensions positively, although they are slightly uncertain when operating in IBS. Their attitudes toward new technology, exciting lifestyle and experiences breaking the daily routines are significantly more positive than in other consumer clusters. In addition, they may use services to express their personality features and they feel capable to control chaos caused by several simultaneously happening events.

The reluctant are the second biggest cluster and they represent the consumer type that is quite the opposite of the eager. They find IBS inconvenient and they do not perceive the benefit of enhanced social status or the usefulness of auxiliary features. The security dimension is the only positively recognised dimension. The reluctant are the oldest consumer cluster with over one third are over 44 years old. Also, they have the

best educational background: almost 60 percent of them have either college/polytechnic or university level education. They use new technology rather willingly, but they are not so eager to experience adventures or strong impressions in general and nor do the services they consume have any self-expressional meaning. This cluster resembles the cluster defined by Machauer and Morgner (2001), that prefers personal service to electronic banking.

The fourth consumer cluster, the practical, value the dimensions of convenience and security the most. They seem to take out the best utility of the services whereas auxiliary features, personal finances, investment and exploration gain negative cluster centre values. Mainly 25-34 year-olds belong to this cluster and almost 80 per cent of them have either secondary or college/polytechnics education. They have slightly positive value in status dimension. Their opinion of new technology is almost as positive as the eagers' and they express quite favourable attitudes toward excitement and unexpected experiences in life. This group is the most convinced of their capabilities to control chaos, although they are distributed most equally among all classes.

### Managerial implications

Managerially, the results provide interesting application possibilities. At first glance, it may look like the simpler and more practical the IBS are the better. Three out of four clusters do not value additional services with slightly entertaining features. Certain consumer clusters just want to take care of their basic bank transactions, i.e. pay bills and check the account transactions as fast and fluently as possible. Thus, it may seem reasonable to suggest that any extra service elements are useless and unnecessary in IBS. As a first conclusion, it can be argued that there is no reason to invest resources in developing experiential and entertaining dimensions to IBS given that maintaining the entire Internet system requires significant investments.

Surprisingly, the dimension of convenience has also negative connotations. Hence, it may be beneficial to stress usability and user friendliness when designing the services. Perceptions of convenience may be improved by enhancing the possibilities to get personal service on the Internet and by enriching available information in IBS. In addition, the possibilities to save time for family, friends and different free-time hobbies by using IBS may be an impressive argument when planning the advertising for IBS. Emphasising the benefits gained from using IBS in contrast to branch banking is also an effective plan for advertising. Naturally, the advertising arguments and claims must be redeemed by actual services.

Further, responses regarding dimensions of auxiliary features and security reveal an interesting interdependency. It can be concluded that auxiliary features enhance the Internet banking experience for insecure and uncertain consumers by ensuring guaranteed and reliable assistance. Developing and advertising the auxiliary features of IBS may be an affirmative measure in order to convince the consumers about the security of IBS. These product development and marketing operations can be supported also by delivering delicate personal communication directly to consumers.

Finally, a broader and more future-oriented approach is suggested. It can be argued that young consumers would expect more from IBS than older consumers. They discern the proposed dimensions of IBS very evidently in comparison to other consumer clusters: they value the versatile and experiential service dimensions and it may seem like they will also find playful and entertaining service features useful. The youngsters have

significantly low educational level and relatively a large portion of them belong to the lowest income group. The eager, i.e. young consumers, do not appear as the most attractive target group at the moment and thus, it may seem justifiable to impugn any argument to develop IBS according to their needs. It must be remembered that the eager are the biggest cluster and they are potential customers in the future when they finish their studies, establish their position in work life and start their own families. Because the current competitive environment facing the banks is harsh, developing versatile and pleasing bank services for future potential customers could be a profitable investment in the long run. The findings represent a true strategic challenge for managers: it is time for decisions regarding how to direct the available resources in order to achieve optimal results in the future.

## Conclusions

Internet usage is expanding along with consumers' computer and Internet literacy. The consumer generation is also changing and the majority of bank customers in developed western countries will grow up with the Internet. On the basis of this study, it is justified to suggest two different development possibilities: the first one is to concentrate on core function of IBS and design the services in question to be as simple and unhindered as possible. This is the most cost-effective way to proceed with IBS; this is where the interest of banks and current consumers as maintainers converge.

The second possibility is to adopt more future-oriented approach and to invest in developing IBS that satisfy the needs of growing consumer cluster of youngsters, who are the prospects of tomorrow. They are used to operating in the vivid and entertaining world of Internet, and thus, it is reasonable to argue that they will require these elements along with the practical utilitarian service dimensions. It must be emphasised that while the basic services must be provided with absolute quality and efficiency, one should also have a long-term orientation and develop features in accordance with changing consumer expectations.

In this paper, the behaviour and perceptions of consumers using IBS has been examined. It has been found that consumers can be divided into four clusters according to their needs and behaviour. Furthermore, it has been found that the clusters differ according to age and education. Our findings give a challenge for further research regarding expanding ways to develop existing products and services, to design new market offerings and especially, to take into consideration emerging consumer generations.

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## Appendix.

Table 1. Principal components describing dimensions in Internet-banking

Principal component	Variables loading on principal component	Mean Response	Variable Loadings	Cronbach's alpha
CONVENIENCE	I get all the information I need for taking care of my banking transactions more conveniently from Internet bank than from bank office.	3.48	0,439	0,643
	By using IB I get better service than from bank office.	2.76	0,412	
	By using IB I have more time for my family/friends/hobbies.	4.01	0,363	
	I would take care of all my loan issues in Internet bank if it only were possible.	3.26	0,340	
	When I want more information or advices from bank personal I prefer e-mail or message services in Internet bank than visit at or take a phone call to bank office.	2.43	0,521	
SECURITY	By using IB I keep my privacy so that other people won't know about my bank transactions.	3.94	0,539	0,558
	IBS are safe, my bank information won't fall into the wrong hands	3.800	0,658	
	I am not afraid that in Internet bank mistakes occur more easily than at bank office.	3.61	0,426	
STATUS	By using IB I give a modern impression of myself to other people.	3.23	0,715	0,602
	By using IB I stand out of ordinary people who use traditional bank services.	2.39	0,715	
AUXILIARY FEATURES	It would be nice to have different voice effects in the Internet bank, for example signalling that the bill is successfully paid	2.82	0,608	0,643
	It would be fun to have a virtual figure in the Internet bank from whom I could ask help when problems occur.	2.76	0,622	
	It would be useful to have a search agent in the Internet bank who would search for me information about topics I have chosen.	3.20	0,521	
PERSONAL FINANCES	It would be fun if I could count useful and funny things like when I would be a millionaire with certain monthly savings.	2.54	0,672	0,754
	It would be fun if I could make illustrative charts and figures of my account transactions.	2.56	0,689	
	It would be useful to follow how my personal economy develops like the ratio between my incomes and expenses within certain time period.	3.47	0,651	
INVESTMENT	It would be useful to practice making investments by taking an investment course in Internet bank.	3.21	0,509	0,617
	I could pay for getting detailed information about investments like real-time stock exchange rates and tips about stock issues and purchase recommendations.	2.14	0,583	
	I could give more information about myself if I got just for me focused services, like investment tips suitable for my portfolio, in return.	2.67	0,609	
ENTERTAINMENT	It would be useful to change opinions with other people in discussion groups about topics related to banking issues in Internet bank.	2.22	0,499	0,670
	Sometimes it is fun just to browse around and see what can be found in bank's websites.	2.64	0,635	
	I would like to read versatile daily news in bank's websites.	2.36	0,680	



# More hedonic versus less hedonic consumption behaviour in advanced internet bank services

A reprint of an article published in  
Journal of Financial Services Marketing

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## Reference to the original publication:

Mäenpää, K., Kanto, A., Kuusela, H., Pallab, P. (2006). More hedonic versus less hedonic consumption behaviour in advanced internet banking services. *Journal of Financial Services Marketing*, 11 (1), 4– 16.

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## Abstract

Finnish internet banking can be considered as one of the most advanced in the world. This paper presents an exploratory analysis of the consumer characteristics in this sector. In the context of internet bank services the paper compares and contrasts two sets of consumers: those who prefer a more experiential view of consumption (more hedonic consumers) with those who believe in a less experiential view of consumption (less hedonic consumers). It was found that important differences exist between these two groups of consumers. Specifically, more hedonically orientated consumers place greater value on almost every proposed service dimension than the less hedonic consumers. These more hedonic consumers tend to be younger people, however, with lower education and income level, and thus, they do not appear to be an appealing target market for banks. In contrast, less hedonic consumers are found to be a more lucrative target market, even though they prefer basic services that concentrate on the core function of internet banking. The results have profound implications for internet bank services. Banks should fo-

cus on an improved functional operation of the services on the internet and cater more to the customers who find it effective and efficient.

## Introduction

During the past two decades, research in the area of consumer behaviour has acknowledged the co-existence of information-processing and experiential views of consumption. While the information-processing view concentrates on decision-making processes and portrays consumers as rational problem solvers (utilitarian consumers), the experiential perspective focuses on the symbolic, hedonic and aesthetic nature of consumption (hedonic consumers). By establishing the experiential perspective, Holbrook and Hirschman<sup>1</sup> have redefined consumption behaviour and legitimised consumers' pursuit of fantasies, feeling and fun. As proposed by traditional models of consumer behaviour, consumers differ from each other by their demographic and socio-economic backgrounds. But a focus on experiential perspective also takes into account the fact that consumers are distinct individuals with emotions and different personalities. Based on this distinction, this paper attempts to segment the internet banking consumers along the dimension of experiential consumption so that banks can develop more effective strategies.

Most of the research with a focus on an experiential view of consumers has been conducted in shopping-related contexts and recreational activities, which have inherent experiential dimensions<sup>1,2</sup>. This study diverges from this trend by exploring experiential characteristics in a mainly utilitarian service environment, namely internet bank services (IBS) whose prominence is increasing rapidly. It is suggested that banking is primarily a utilitarian activity<sup>3</sup> whereas the internet use has been shown to deliver hedonic satisfaction<sup>4</sup>. Thus internet banking is an activity that provides the opportunity to explore the interplay between these two consumer orientations. Nordic countries constitute one of the most technologically advanced e-banking markets in Europe, having the highest e-banking penetration rate.<sup>5</sup> For instance, Finland is one of the pioneering countries where 60 per cent of its 5.2 million population entered into electronic banking relations in 2004.<sup>6</sup> Therefore, IBS in Finland offer an interesting case study for assessing the difference between more and less hedonic consumers.

Thus, the purpose of this study has been to explore whether there are distinct groups of more hedonic and less hedonic consumers in the internet banking services (IBS) industry. And if there are, to compare them on the dimensions of IBS that the authors undertake to define as part of this study. Based on these findings, suggestions are provided as to how the banks should formulate strategies for internet banking (IB).

## Experiential consumption

Experiential consumption emphasises 'fantasies, feelings and fun'<sup>1</sup> or 'experience, entertainment, exhibitionism and evangelising'<sup>7</sup> and concentrates mainly on playful leisure activities, sensory pleasures, daydreams, aesthetic enjoyment and emotional responses. Novak, Hoffman and Duhachek<sup>2</sup> have summed up experiential consumption as intrinsically motivating, ritually oriented and sustainable involving consumption behaviour with hedonic gratification. Experiential consumption is phenomenological and it regards consumption as a primarily subjective state of consciousness where a variety of symbolic meanings, hedonic responses and aesthetic criteria gain significance.<sup>1</sup> This view can be interpreted as being almost analogical with hedonic consumption that designates 'those facets of consumer behaviour that relate to the multi-sensory, fantasy and emotive aspects of one's experience with products'.<sup>8</sup> Hence, the authors have chosen to designate con-

sumers who prefer a more experiential consumption as being more hedonic consumers (and the opposite of that are, of course, less hedonic consumers.)

In their seminal work on information processing and experiential views of consumer behaviour, Holbrook and Hirschman<sup>1</sup> have identified individual differences as a significant input in consumer analysis. While the information-processing view focuses on general customer characteristics like demographics, socioeconomic status and psychographics, the experiential approach emphasises the differential meanings that arise out of differences in consumer personalities. Sensation seeking, creativity, religious worldview and personal tendency to allocate time among work and leisure activities are named as some of the experientially relevant personality constructs. Furthermore, after examining socio-psychological characteristics of consumers, Hirschman<sup>9</sup> has categorised different consumer groups into cognition seekers, sensation seekers, novelty seekers and experience seekers (the last embodies the combination of the former three). This research establishes that while consumers may differ in their consumption orientation, they all seek an experience at the end.

### Elements of internet services

In comparison to traditional channels, internet services have established a relative advantage through ease of use, convenience, time savings and a wide range of options.<sup>10</sup> Endeavours to identify the key determinants of successful internet services and the factors influencing the use and adoption of the internet have been researched during the past few years. Ease of use,<sup>11-13</sup> convenience<sup>14,15</sup> and issues relating to security, privacy and trust<sup>16-18</sup> have emerged as the critical factors from most of the internet studies. In fact, security concerns have been proved to be the main barriers to adoption of internet services, especially in the banking sector.<sup>19,20</sup>

Although rational and utilitarian factors are crucial in internet services, researchers have acknowledged the importance of attributes like visual appeal and attractiveness,<sup>11,21</sup> aesthetics<sup>13,22</sup> and sensation<sup>23</sup> affecting interactive experience. Dholakia and Rego<sup>24</sup> have suggested variety (number of changes), links from and to a website, compatibility and extensiveness (pictures, multi-media capabilities, enhancements and advertisements) as determinants of popular websites.<sup>25</sup> Childers, Carr, Peck and Carson<sup>4</sup> have examined the utilitarian and hedonic motivations of online shopping behaviour and found that instrumental and hedonic aspects are almost equally important predictors of online attitudes. Thus, usefulness, ease-of-use and enjoyment affect the formation of interactive consumer experience simultaneously.

Entertainment and enjoyment can be interesting features of any internet service. Chen and Wells<sup>26</sup> have named entertainment as one of the three critical dimensions measuring attitude towards a website. Mathwick, Malhotra and Ridgdon<sup>22</sup> have defined entertainment as a dimension of the aesthetic response offering immediate pleasure for its own sake. Entertainment represents consumers' reactive intrinsic experience while enjoyment illustrates active intrinsic experience stemming from playfulness.<sup>21,22</sup> Further, intrinsic enjoyment is essential for flow experience, enriching internet use and enabling compelling consumption experience.<sup>27-29</sup> Enjoyment has a direct positive effect on usage intention<sup>11</sup> and consumer satisfaction.

Although former research has focused mainly on the online shopping environment, it provides interesting insights worth considering in this study. While banking appears to be more goal-oriented consumption than retail shopping, it still does not exclude the possibility of being influenced by both utilitarian and hedonic perspectives. It is thus essential to approach IBS from a broad perspective, which acknowledges both utili-

tarian and experiential dimensions of use experience. As Novak *et al.*<sup>28</sup> have argued, flow can be experienced in both goal-directed and experiential activities on the internet.

### Internet banking services (IBS) dimensions in this research

There is a strong consensus among scholars about the increasing importance of the internet in the contemporary, competitive and increasingly global banking environment.<sup>30–35</sup> Newly emerged electronic distribution channel sets challenge banks' strategic channel decisions<sup>36–40</sup> and at the same time, consumers perceive the service quality differently for this new medium.<sup>41</sup> Research in internet banking (IB) has, thus far, been focused on the utilitarian aspects of banking and on the factors affecting the adoption of IB by consumers.<sup>3,19,20,42</sup>

IBS have been selected as the research context here because of their utilitarian nature and their prominent role in the area of internet services — a prominent factor in contemporary business. Experiential factors have, however, been included in the statements defining dimensions of IBS so that the research question can be answered. Such a novel characterisation of the IBS has been based on exploratory interviews of active users of IBS as well as an extensive literature review. Finally, a questionnaire has been designed following these guidelines.

## Methodology

### Research design

Data were collected in two different studies. The first was a pilot study that intended to develop the principal statements that would measure the characteristics of hedonic consumers. It had a sample size of 20 undergraduate marketing students who completed a questionnaire that helped the authors to develop the principal statements. It is acknowledged that using such a convenience sample makes it difficult to be able to generalise the findings. Given the exploratory nature of the pilot study, however, such practice is acceptable in the field.<sup>43</sup> In addition, using student subjects can actually be strength of this research as they typically form a proportionately large group of internet users and can provide important insights.

Following the pilot study, the main study was undertaken where data have been collected as part of a nation-wide consumer study conducted by a major Finnish research institute through the method of personal interviews. This broad study sampled the Finnish population (15 – 74-year-olds) in a representative way and produced 1,031 computer-assisted interviews conducted at the consumers' residences. Of these, 300 consumers turned out to be active internet bank users and they thus became part of the study. It was found that 47 per cent of the respondents are over 35 years old, which corresponds with the penetration rate of IBS in 2001 (when the data were collected). Age, education and income distribution of the subjects correspond to that of previous studies on IB users in Finland.<sup>6,44,45</sup>

### Pilot study

Although free-time activities comprise an essential source of experiential consumption, the characteristics of a more hedonic consumer are drawn from a review of related literature. The common underlying themes in consumption of experiential leisure are typically the following: a search for excitement and adventures, escaping from daily routines and several social dimensions.<sup>46–49</sup> As pointed out by Hopkinson and Pujari,<sup>47</sup> the social context for experiential consumption is defined by post-modern conditions which then

has implications for a post-modern marketing perspective. Firat and Schultz 50 have summarised these postmodern contexts in ten basic statements, which are the starting point for this study (see Appendix I).

In order to portray the characteristics of a consumer who believes in a more experiential aspect of consumption, the authors conducted a pilot study using these ten statements. After an initial factor analysis, four variables were chosen to compose a principal component measuring these consumer characteristics. The results are shown in Table 1.

Table 1: Statements measuring a more hedonic consumer characteristics

Principal component	Code	Variables loading on principal component	Item source	Mean response	Variable loadings	Cronbach alpha
More hedonic consumer characteristics	i1	I think I am impatient – I want everything here and now.	Firat & Schultz II, 1997 <sup>12</sup>	2.51	0,356	0,665
	i2	I think there have to be excitement and adventures in life.	Holbrook & Hirschman, 1982 <sup>1</sup>	3.70	0,608	
	i3	I look for strong impressions and experiences in my free-time, they help me to loosen from everyday life.	Unger & Kernan, 1983 <sup>8</sup>	3.04	0,678	
	i4	I want to emphasize certain features of my personality by services I use.	Firat & Schultz II, 1997 <sup>12</sup>	2.09	0,377	

Although in the table the variable loadings of statements 1 and 4 are considerably lower than that of 2 and 3, they all are acceptable loadings to the principal component. The principal component has attained a Cronbach alpha of 0.665.

The data are divided then into quartiles according to the constructed principal component. In order to achieve the definitional accuracy in comparing two groups of consumers who are totally different in terms of how they like to consume, the quartiles are preferred to simply splitting the data. The lowest quartile of the principal component represents consumers who prefer less experiential consumption (less hedonic consumers), while the highest quartile indicates consumers who like more experiential consumption (more hedonic consumers). The quartile sizes are different because of a tie. The second and the third quartiles represent hedonically neutral consumers and thus, are irrelevant in this study and are left out of the analysis. Consequently, the more hedonic consumers in the study are defined as people who:

- want to emphasise their personality by services which they use (products representing self-images)<sup>50</sup>
- seek excitement and experience during leisure time (subjective stimulating leisure time is like getting away from it all) 46 as well as in life overall (overall experience including attention, interest, excitement and so forth)<sup>1</sup>
- want to experience everything here and now (loss of commitment and involvement).<sup>50</sup>

## Main study

Altogether 22 statements measure the dimensions of IBS in five-point Likert scales (1 = complete disagreement and 5 = complete agreement). The statements represent seven dimensions: (1) convenience; (2) security; (3) status; (4) auxiliary features; (5) personal finances; (6) investment; and (7) exploration. It was expedient to limit the study to the actual attributes and benefits of IB due to enhanced practical implications. Each dimension has been condensed to one variable using one factor principal component analysis that practically corresponds to generating sum variables. Cronbach alphas of the dimensions vary between 0.558 and 0.754 (see Appendix II) and thus, fall within the acceptable limit (0.50 and 0.80), suggested by Nunnally.<sup>51</sup>

The definitions of these seven dimensions used in this study are provided below:

- *Convenience* means saving time, 24/7 access and increasing the quality of service in comparison to branch banking. In fact, service quality is one of the most cited beneficial features of IB.<sup>17,52</sup> It also appears to be the dominating factor in transaction channel preferences<sup>40</sup> and the main service factor resulting in consumer satisfaction.<sup>53</sup> Since consumers have been found to prefer more leisure time to dedicating time to financial matters,<sup>54</sup> convenience gains priority for the consumer when he or she selects a bank transaction channel. Overall, convenience can be conceptualised as the relative advantage of adopting a new service channel.<sup>55,56</sup>
- *Security* stands for the reliability of IBS and that banking transactions can be completed confidentially and completely in privacy. According to Polatoglu and Ekin,<sup>56</sup> security is defined and measured along the lines of reliability, security and privacy dimensions. Consumers' concerns about security, which arise from the use of an open public network, have been emphasised as the most important factor inhibiting the adoption and use of IBS.<sup>20,52,57,58</sup> In addition, security issues are essential for IB 12 and have been identified as significant quality attributes of IB.<sup>13,17</sup>
- *Status* reflects the social significance of internet bank use in relation to branch banking as a means of expressing and enhancing one's self-concept. As a dimension of social desirability, status measures relative advantage of IB use.<sup>49</sup> It contributes to impression management, i.e. by consuming certain products or services consumers strive to influence their self-image in the eyes of other consumers.<sup>59</sup> This argument can be traced back as far as Grubb and Grathwohl's<sup>60</sup> review on self-theory and symbolism. The authors' intention is to probe whether consumers perceive the use of IB as having a positive effect on their social status and self-concept. While consumers often use products and services for impression management (products as responses), they may also be used for self-definition (products as stimuli).<sup>61</sup>
- *Auxiliary features* indicate attributes that can be designed for IBS in order to assist consumers in IB. Voice effects, virtual figures and search agents can improve the usability and interactivity of IBS, which increases user friendliness while reducing perceived risk. These features can be placed under the heading of multi-media friendliness.<sup>62</sup> Dholakia and Rego<sup>24</sup> have specified complexity and extensiveness as two determinants of popularity of websites. Pictures, multi-media capabilities and enhancements enabling complex and interactive messages create an

interesting electronic environment, thus enhancing overall use experience. Auxiliary features contribute to experiential value<sup>21</sup> by increasing the efficiency, enjoyment, visual appeal and entertainment value of IBS. They make IB more vivid.

- *Personal finances* include features that are useful when managing personal accounts and transactions. For example, a calculator for assessing saving possibilities and a tool for compiling illustrative charts and figures of account transactions are practical and augmented services. Zhu *et al.*<sup>15</sup> have suggested that multifunctional capabilities are supplemental services that may be important features in satisfying consumers' needs. Thus the money management features in banks' websites need further investigation. Jun and Cai<sup>13</sup> have argued that compatibility (between IBS with software like Microsoft Money and Intuit Quicken) is a unique characteristic for the 'ease of use' dimension.
- *Investment* represents practical devices and advice, which assist and support investment activities. Providing saving and investment services is an important part of banks' product mix.<sup>63-66</sup> In addition, investment services have been identified as high involvement services,<sup>67</sup> and thus, it is worth examining them in this study. Investment covers issues like a course on investment on the bank's website, real-time investment information and personal purchase recommendations. These advisory and informative functions of IBS also enable tailored personal service and interaction that may otherwise be missing on the internet.<sup>68,69</sup>
- *Exploration* refers to exploratory information seeking defined by Baumgartner and Steenkamp.<sup>70</sup> Exploratory consumer behaviour involves intrinsically motivated consumption processes that can be categorised into two distinct dimensions: exploratory acquisition of products (EAP) and exploratory information seeking (EIS).<sup>70</sup> For this study, a close look at the latter (ie EIS) is more relevant. Finally, participating in a virtual discussion group in order to exchange opinions about banking issues with other consumers corresponds to Baumgartner and Steenkamp's enjoyment of talking to other consumers about their purchases and consumption experiences. While engaging in exploration and curiosity stimulates browsing, the interesting thing to note is that it also increases the probability of being exposed to advertising and other marketing communication.<sup>71</sup>

### Comparison of more hedonic and less hedonic consumers

Based on these seven dimensions of IBS, consumers have been compared using analysis of variance in order to contrast between more hedonic and less hedonic consumers. This is essentially similar to a t-test of difference in means. The results are shown in Table 2.

Table 2: Contrasting more hedonic and less hedonic consumers

Principal Components	Means		t value	Significance
	Less hedonic	More hedonic		
CONVENIENCE	-0,254	0,362	<b>3,845</b>	0,000
SECURITY	0,189	-0,105	-1,796	0,074
STATUS	-0,398	0,494	<b>5,721</b>	0,000
AUXILIARY FEATURES	-0,231	0,308	<b>3,345</b>	0,001
PERSONAL FINANCES	-0,397	0,476	<b>5,589</b>	0,000
INVESTMENT	-0,403	0,485	<b>5,693</b>	0,000
EXPLORATION	-0,469	0,416	<b>5,666</b>	0,000

The results indicate that based on their experiential view of using IB, consumers do differ from each other. All dimensions of the IBS have produced a significant difference between more hedonic and less hedonic consumers (except security), with more hedonic consumers scoring a higher mean in each category than the less hedonic consumers.

The results indicate that the examination of the IB consumers based on their preference of consumption (more experiential versus less experiential) has been worthwhile. More hedonic consumers (who prefer a more experiential view of consumption) perceive the dimensions of IBS very differently from the less hedonic consumers (who take a less experiential view of consumption). In particular, it was found that more hedonic consumers value convenience (e.g. time savings and service quality) more than less hedonic consumers. In addition, more hedonic consumers have been found to use the IBS to enhance their social status. They distinguish themselves from other consumers (who use branch services), in order to create an overall modern image for themselves. They see IBS as something special that gives them a feeling of superiority as progressive consumers by differentiating them from branch bank customers.

It was found that more hedonic consumers like the auxiliary features of IBS such as voice effects, virtual figures and search agents more than less hedonic consumers. Auxiliary features can be considered as entertaining and funny, but they can also serve the purpose of being reassuring. For example, a voice effect signals successful bill payment, a virtual agent helps in problem solving and a search agent looks for useful information. More hedonic consumers may have liked these features due to their confirmative and assisting nature as well as their entertaining aspects.

Surprising results are found for the next three dimensions. These dimensions (personal finances, investment and exploration) are more likely to have a practical and utilitarian inclination and should have appealed to the less hedonic consumers. However, the results do not reflect that (see Table 2). More hedonic consumers have paid more attention to these aspects of IBS than less hedonic consumers. This implies that more hedonic consumers like to tinker with their personal account information in IBS (calculate when they will reach a goal with certain monthly savings, draw illustrative diagrams of account transactions and follow the personal cost and income ratio). They are also interested in detailed information about investments and sharing more information about themselves in order to get tailored investment advice. Finally, these consumers



have shown interest in exploration (in terms of browsing, participating in discussion groups and reading daily news on a bank's website).

It is notable that security has not been a significant point of difference between the two consumer groups under study. Several studies have indicated that Finnish internet bank customers<sup>6,44,45</sup> are concerned about security issues in IBS,<sup>20,21</sup> therefore it is not surprising that both more hedonic and less hedonic consumers have similar attitudes towards security. To sum up, the results indicate that IB consumers can be categorised in two distinct types:

- More hedonic consumers, like to telepresent<sup>27,28,72</sup> and they constantly seek for various ways to occupy themselves in IBS
- Less hedonic consumers are functional and are thus mainly interested in the core function of IB and its reliability.

Finally, in order to describe these more hedonic and less hedonic consumers and to create their profiles, the relevant demographic and psychographic variables are examined using cross-tabulation. The results are shown in Table 3.

Table 3: Background variables of more hedonic and less hedonic consumers

		Consumer characteristics % within group			$\chi^2$
		Less hedonic	Neutral	More hedonic	
GENDER	Female	60,8	46,4	49,3	4,222
	Male	39,2	53,6	50,7	
AGE ***	under 25 years	2,7	17,2	46,7	64,706
	25-34 years	23,0	38,4	29,3	
	35-44 years	33,8	27,2	12,0	
	over 44 years	40,5	17,2	12,0	
EDUCATION ***	comprehensive school	6,8	11,3	25,3	23,248
	secondary school	28,4	39,1	38,7	
	college/polytechnics	39,2	34,4	30,7	
	University	25,7	15,2	5,3	
ANNUAL INCOME **	under 20 000 €	4,3	21,4	28,4	17,770
	20 000-33 500 €	26,1	28,3	31,3	
	33 501-47 000 €	42,0	29,0	22,4	
	over 47 000 €	27,5	21,4	17,9	
USAGE FREQUENCY OF INTERNET	at least 4 times per week	45,9	52,3	44,0	12,456
	1-3 times per week	6,8	13,2	8,0	
	2-3 times per month	28,4	28,5	36,0	
	once a month or more seldom	18,9	6,0	12,0	
TOTAL TIME OF INTERNET USAGE	under 1 year	18,9	16,6	14,7	2,487
	2-3 years	35,1	35,8	45,3	
	over 3 years	45,9	47,7	40,0	

On investigating the differences between these groups, it was found that when it comes to gender and internet usage there is no significant difference. Significant differences do exist in the following areas, however:

- Age: less hedonic consumers are typically older
- Education: less hedonic consumers are typically more educated
- Annual income: less hedonic consumers are typically richer.

## Discussion and conclusion

This study found interesting differences between more hedonic and less hedonic consumers in the context of IB. More hedonic consumer characteristics are defined as a personality feature of people who want to emphasise their personality by the services they use, who experience everything here and now and who also seek excitement and generally. Altogether seven perceived dimensions of consumers' experiential characteristics of IBS are proposed. The dimensions are convenience, security, status, auxiliary features, personal finance, investment and exploration. The research shows that all of these dimensions (except security) prove to be statistically significant in differentiating more hedonic consumers from less hedonic consumers. Thus the findings of this research extend previous knowledge on IB consumers and help to segment and target them and finally to position the IBS for the appropriate market.

In particular, it was found that more hedonic consumers expect more from IBS than less hedonic consumers. With the exception of security, more hedonic consumers clearly perceive higher benefits of the proposed dimensions of IBS and appreciate playful and entertaining service features. More hedonic consumers are found to be typically younger consumers with lower income and lower educational level and, hence may not be the best target market for banks for IB. Thus IBS may not necessarily be developed primarily according to the needs of more hedonic consumers.

More profitable consumer groups for banks (older, richer and more educated) seem to be less hedonic by nature: they do not value vivid and versatile IBS the way more hedonic consumers do. Therefore one can argue that there is no reason for banks to invest resources in developing experiential and entertaining IBS, since developing and maintaining such an internet system requires significant investment. Instead, banks perhaps need to concentrate on the core function of IBS and design the services in question as effectively and efficiently as possible. Such an approach should create an overlap between the interests of the bank and those of the customers they consider lucrative.

This research is exploratory by nature. It is necessary to discuss the limitations of the sample and how this might have an impact on the findings the authors were sampling young adults who can be considered a hedonistically driven group. The pilot study only involved young adults but the main study had 300 representative consumers (aged 15 – 74 years). Its findings will help the design and development of new market offerings for banks, after a conceptualisation of their target consumers. More hedonic consumers (or consumers who prefer a more experiential consumption) is a useful concept that may help to redefine traditional demography based consumers due to their diverse perceptions of service dimensions. The outcome of this research will have relevance beyond this particular context and can be extended to other utilitarian and hedonic service environments. The instrument to measure the concept of more hedonic consumer characteristics developed in this exploratory study has provided an interesting insight; however, a variety of other methods (for instance, participant observation) may be used in conjunction with future studies.

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## APPENDIX I

### Principal components describing dimensions in Internet banking

Principal component	Variables loading on principal component	Mean Response	Variable Loadings	Cronbach alpha
CONVENIENCE	I get all the information I need for taking care of my banking transactions more conveniently from Internet bank than from bank office.	3.48	0,439	0,643
	By using IB I get better service than from bank office.	2.76	0,412	
	By using IB I have more time for my family/friends/hobbies.	4.01	0,363	
	I would take care of all my loan issues in IB if it only were possible.	3.26	0,340	
	When I want more information or advice from bank personnel I prefer e-mail or message services in IB to visiting or calling bank office.	2.43	0,521	
SECURITY	By using IB I keep my privacy so that other people won't know about my bank transactions.	3.94	0,539	0,558
	IBS are safe, my bank information won't fall into the wrong hands.	3.800	0,658	
	I am not afraid that in IB mistakes occur more easily than at bank office.	3.61	0,426	
STATUS	By using IB I give a modern impression of myself to other people.	3.23	0,715	0,602
	By using IB I stand out of ordinary people who use traditional bank services.	2.39	0,715	
AUXILIARY FEATURES	It would be nice to have different voice effects in the IB, for example signalling that the bill is successfully paid.	2.82	0,608	0,643
	It would be fun to have a virtual figure in the IB from whom I could ask help when problems occur.	2.76	0,622	
	It would be useful to have a search agent in the IB who would search information for me about topics I have chosen.	3.20	0,521	
PERSONAL FINANCES	It would be fun if I could calculate useful and funny things in the IB, e.g. when I would be a millionaire with certain monthly savings.	2.54	0,672	0,754
	It would be fun if I could make illustrative charts and figures of my account transactions.	2.56	0,689	
	It would be useful to follow how my personal economy develops, e.g. the ratio between my incomes and expenses within certain time period.	3.47	0,651	
INVESTMENT	It would be useful to practice making investments by taking an investment course in IB.	3.21	0,509	0,617
	I could pay for getting detailed information about investments, e.g. real-time stock exchange rates and tips about stock issues and purchase recommendations.	2.14	0,583	
	I could give more information about myself if I got in return services focused just for me, e.g. investment tips suitable for my portfolio.	2.67	0,609	
EXPLORATION	It would be useful to exchange opinions with other people in discussion groups about topics related to banking issues in IB.	2.22	0,499	0,670
	Sometimes it is fun just to browse around and see what can be found on bank's website.	2.64	0,635	
	I would like to read versatile daily news on bank's website.	2.36	0,680	