1 INTRODUCTION

The WWW changed from a purely information retrieval function towards a place where customers are increasingly buying products and services. The figures estimated for the US growth in online purchases during the time period 2004 to 2008 amount to 18.5%. For some European countries like the UK, Germany, France, Italy and Spain the estimation of growth is even much higher with 41% for the same time period 2004-2008 (eMarketer, 2005).

On the one hand, people use the Internet more and more for purchasing goods. On the other hand, there is an overwhelming amount of information about products and services constituting the need for improved functions to help internet users being efficient. Personalised systems and recommender systems offer the useful functionality to provide search results and proposals tailored to the individual preferences and constraints of the user. Personalisation (or customisation) is defined as a technique proposing individualised content for each customer (Greer & Murtaza, 2003). Personalised and recommender systems filter out relevant items for a customer according to his or her previously stated preferences and needs (Thompson, Göker, & Langley, 2004).

Compared to stand-alone web sites those kind of online systems offer the advantage for the customer to reduce search costs (Lynch & Ariely, 2000). Furthermore, personalised systems help to decrease information overload and to increase user loyalty (Perugini, Gonçalves, & Fox, 2004).

1.1 Problem statement

Research investigating Human-Computer Interaction (HCI) concepts applied to personalised systems and recommenders is very limited disregarding the fact that the significance of those systems increases more and more. Additionally, new factors, like trust emerge, whose significance was not that high in the past. Purchase activities require websites which provide the user with a feeling of security if required to give away personal and sensitive data like credit card information. The influence of trust was considered in various studies, e.g. Koufaris and Hampton-Sosa (2004), Gefen and Straub (2004). Their findings suggest that trust has a significant impact on online purchase intentions.
Another important development is that people are more and more experienced when using the Internet. Rising internet experience leads to higher expectations and satiation effects. Not only utilitarian but also hedonic benefits are sought. It is not enough anymore to have a website offering necessary information which can be easily found. Satiation effects require additional appeals, e.g. fun during the purchasing process. Purchasing and browsing activities on the Internet should fulfil a kind of entertainment function as well. There are already a number of studies investigating the effect of fun, enjoyment, playfulness or pleasurefulness. Yi and Hwang (2003) highlighted the importance of enjoyment as antecedent of usefulness, ease of use and self-efficacy. Van der Heijden (2003) added the construct perceived enjoyment to ease of use and usefulness (which are the two factors of the Technology Acceptance Model (TAM)). Chung and Tan (2004) investigated the antecedents of perceived playfulness which are among others, speed, content, variety, focused attention. Teo, Lim et al. (1999) found out that most importantly, the Internet is regarded useful for task fulfilment and second, there is surprisingly already enjoyment together with ease of use.

Technical and skill barriers did have a significant influence on the use of and on the satisfaction with the Internet. However, these influencing factors are diminishing more and more; technical and skill barriers are less and less inhibitors to use the Internet for purchase activities. Bandwidth is constantly being improved. More and more people have access to the Internet and therefore become more skilled. Together, these factors contribute to a rapid change in the Internet “environment”. Thus, the goal of this study is to combine those changing and emerging factors in a common model for explaining satisfaction with personalised internet applications.

This study distinguishes from already existing ones by the following aspects: First, the focus will not be on the measurement of general WWW satisfaction and its influencing factors. Instead, three particular personalised internet applications are investigated. The satisfaction is measured directly after the users have experienced the system and have finished a predetermined task simulating real problem solving and purchasing activities. When measuring such emotional constructs like exploratory browsing or enjoyment it is crucial to conduct an evaluation immediately after the experience with a particular web site has taken place because memories are fading. An explanatory model for the satisfaction with personalised internet applications was proposed, elaborated and tested in the course of this study. Furthermore, the influencing factors trust and exploratory...
browsing behaviour were added in the satisfaction model additionally to ease of use and usefulness.

1.2 Objectives of the study

The predominant goal pursued with this study is to develop a comprehensive model which is appropriate to evaluate satisfaction with personalised internet applications. What are the main factors driving satisfaction which in turn influences commitment (the intention to revisit the web site or to recommend it to others)?

Furthermore, the study has several sub goals. First, literature is reviewed to identify similar studies and relevant approaches from other web site studies, information systems (IS) and Human-Computer Interaction (HCI) studies. The main objective of this step is to identify possible influencing factors. Second, a research model is proposed based on those influencing factors. For each of the model dimensions measurement items are developed either by literature review or in an exploratory manner (by proposing new items and pre-testing them). Third, the research model is tested among users (test persons) involving three different personalised internet applications stemming from different areas. The reason for that is the objective to develop a model covering influencing factors for a wider range of personalised internet applications. The survey will be Internet based because test persons are asked to experience the web site before evaluating it. A major concern is that a certain kind of involvement is created by proposing them to accomplish a pre-determined task and to reduce extraneous variance. The goal was to collect a rather large sample size of more than 1000 test persons to be able to analyse the survey data with structural equation modelling, to employ multiple group analysis and to discover differences among the personalised internet applications.

1.3 Structure of the book

This study aims to investigate the influencing factors on satisfaction with personalised internet applications. The book consists of six chapters starting with the introduction. The theoretical background relevant to this study is described next. The research model, the study methodology and the results are presented in
the following chapters. Finally, the conclusion drawn from this study as well as implications for practitioners and future research are outlined.

The theoretical background chapter starts with a classification of personalised internet applications. What is the difference to ordinary web sites or more sophisticated systems like recommenders? Research traditions and theories relevant to this study are reviewed with the goal to consider theories which might be useful but are not obviously helpful at first glance, e.g. domestication research. Next, the concept of customer satisfaction in general is investigated. The following sub-chapter “Human-Computer Interaction” consists of a review of relevant approaches to explain satisfaction (or usage, acceptance), e.g. the well-known Technology Acceptance Model (TAM) or the concept of Flow. Finally, user interface design aspects and system evaluation methods are discussed.

In chapter three the conceptual model is developed which is the main focus of the study. Each of the dimensions hypothesised to have an influence on satisfaction with personalised internet applications is outlined.

Chapter four presents the study methodology used to identify the degree of influence each of the hypothesised factors has on satisfaction with personalised internet applications. The operationalisation of the respective constructs is described and how the survey instrument was developed. The internet applications used to validate the model are briefly delineated. Finally, the approach how study participants were encouraged to participate in the user survey is outlined.

Chapter five focuses on the results starting with the descriptive analyses and moving on to structural equation modelling. First, an overview of the demographic distribution of the sample is given. Second, the study participants are classified according to personal characteristics such as attitude towards online information search or internet familiarity. Finally, the participating personalised internet applications are compared in terms of the results they achieved when study participants evaluated them. The structural equation modelling part of the dissertation covers general issues such as model fit and the distinction between measurement and structural model. Next, results for an overall structural model as well as for multiple group analyses are presented. The final part of chapter five deals with results of expert interviews conducted to give additional insights and an outlook for future possible developments.
The final chapter six provides a conclusion of the main results and a discussion of the findings. Limitations of the study are outlined and implications for future research as well as for practitioners are given.