

Summary

Electronic commerce is fundamentally changing the way consumers search and buy goods and services. E-commerce is informing, promoting, buying and/or selling of products or services over electronic media such as the Internet. E-commerce has become a critical factor for competitiveness and productivity growth. Companies in all sectors are increasingly using the Internet to do business. These new circumstances have forced managers to seek guidelines on how to act effectively in the electronic marketplace. However, not all website investments lead to increased performance and the search for ways to make the web profitable is therefore still on. In fact, to sustain the profitability of any business, keeping the customer repurchasing products or services is essential. To keep e-clientele, e-commerce has to be customer focused. In order to develop customer-oriented e-commerce strategies, it is essential for managers to understand what the customers' needs are in the online environment.

Using knowledge of customers needs in their purchase process may provide essential insights for e-commerce strategy. The main goal of this thesis is to provide insights into *how online customers' needs structured in the customer purchase process affect website development and e-commerce performance*. Such strategies should be based on customer needs in the online setting. Hence, customer behavior theory, in particular the customer purchase process, is used in this thesis to attain the stated goal. The thesis consists of three studies. The conceptual models of studies 1 and 2 are tested in an empirical setting with data from 380 firms with commercial websites. The sample is obtained from a wide range of industries in the Netherlands. The conceptual model of study 3 is empirically tested using a cross-European (15

countries) survey, which allows for generalization and international comparison of the findings.

In study 1 '**Stages of website advancement: assessment based on goals to support the customer purchase process**', the objective is *to determine the stages of website advancement based on the hierarchy of website goals*. A goal hierarchy implies that different firms pursue website goals in the same fixed order. Moreover, we explore whether the degree of website advancement differs depending on various firm and industry characteristics. We examine website advancement stages based upon the support the website provides to customers.

We contribute to existing literature by formulating website goals based on the customer purchase process. Next, we adopt an innovative modeling approach, namely a latent class extension of the generalized partial credit model (Muraki, 1992; Vermunt, 2001) that combines latent class analysis and item response theory. This methodology permits us to test whether a single hierarchy exists or if the data is better described by distinguishing multiple hierarchies. The results suggest two separate dimensions of website development, one for transactional and another for relational website functions. The website goal hierarchy for the transactional dimension is the following: product selection, ordering, delivery, after-sales service, order progress and payment. For the relational dimension the hierarchy consists of the following goals: image building, strengthening relationships, after-sales service, and order progress. These hierarchies assume that websites that have realized simpler goals may or may not pursue more advanced goals, but that all websites at the advanced level also pursue the more basic goals. The firm characteristics that influence the level of website advancement include having a separate marketing department and the industry type.

The two hierarchies we derive based on website goals are in line with previous research using different approaches. Daniel et al. (2002) identified four sequential stages of e-commerce adoption, where firms at a specific stage undertake all the activities of the previous stages and some in addition. Lee and Grewal (2004) discussed adopting the Internet as a communication channel and

as a sales channel. Similarly to Daniel et al. (2002) they perceive the communication channel as an initial step before adopting a sales channel. Our study deviates from these and other studies by specifying two separate dimensions of website development. Our empirical findings indicate that website advancement should be treated as two related but different sequences of e-commerce adoption: transactional and relational aspects. Identification of these hierarchies has important implications for website development. It may guide firms in their continuous search for improvement of their website, and it may also enhance our understanding of their current Internet use as a phase in an extended process. By showing how website goals can be derived from the various stages of the customer purchase process we offer managers a tool to support the development of customer-oriented websites. Managers can determine which features or functions could support customers better at each stage. Also, managers can use the model to review their current website: it reveals the major strengths and weaknesses of their website in terms of supporting customers in their decision process. Above all, these results allow a firm to determine its current status of advancement and suggest which goals could be pursued given at that website stage. Thus, the results of this study can serve as a benchmark and as a tool for screening, evaluating, designing, and improving websites.

Study 2 ‘**Transactional and informational functions of websites: What is more important for success?**’, provides new theoretical and empirical insights into *the relative importance of the informational and transactional functions of company websites. This is achieved by the chain of effects from website features, through informational and transactional success towards overall website and company performance.* By establishing this chain of effects three important contributions are made. First, we are able to determine the relative importance of the informational and transactional functions of a website. Second, by linking features to success measures, we identify which website features impact website success. Third, by establishing the chain of effects we link website features (the content of the site) through a number of intermediate performance measures ultimately to the financial performance of a

company. By empirically validating these links we provide an important argument for the e-commerce accountability debate. For practitioners, a better understanding of whether and how the transactional and relational functions connect with success would allow them to use resources more effectively and improve the return on their Internet-related investments.

Our results indicate that both the informational and the transactional functions contribute to the success of websites. This finding is in contrast to Lee and Grewal (2004), who studied Internet adoption as a communications channel and as a sales channel. Only in the first case did they find a positive effect on firm performance. Although both functions contribute to website success, the informational function has a considerably greater effect than the transactional function. Moreover, we found that both informational and transactional features sets have a positive impact on their respective website functions' success. This result partly differs from Saeed et al. (2003) who found no support for the relationship between website features in the acquisition (our transactional function) and ownership stages (our informational function), and performance. This divergence might be due to different approaches in classifying website features into stages of purchase process.

Managers can use the features sets proposed in study 2, as a starting point for website improvement. The chain of effects (starting with website features and ending with financial performance) is helpful for managers since an established link with financial performance is essential in e-commerce accountability debates. Furthermore, our findings imply that there is, in general, no reason to limit Internet activities to information, communication or interaction-related tasks. Providing relevant support in the transaction stage also contributes to greater overall website success.

Next, in study 3 '**The Effect of Complaint Behavior and Service Recovery Satisfaction on Intentions to Repurchase on the Internet**', we give insights into online customers' needs in the post-purchase stage of the purchase process. The goal is *to investigate the impact of consumers' complaint behavior and service recovery satisfaction on the intention to repurchase on the Internet channel*. We study whether consumers complaints followed by satisfaction with

complaint handling impact consumer intentions to buy on the Internet. The literature on traditional (offline) commerce (e.g. Dunning et al., 2004) indicates that even a dissatisfied customer is willing to repurchase if the complaints were well handled. Hence, proper service recovery actions can win the consumer back, while poor recovery efforts may move consumers to another retailer (Schneider and Bowen, 1999). However, complaint behavior and this so-called service recovery paradox (De Matos et al., 2007) has hardly been addressed in the e-commerce literature. Customers dissatisfied with an online purchase may not only switch to another online retailer, but they may discard the Internet channel for future shopping.

In general, our findings show that negative experiences and complaints do not automatically lead to disadoption of the Internet as a purchase channel. Consumers with negative experiences who complained about them and were satisfied with the complaints handling, have higher repurchase intentions than consumers who did not have a reason to complain and consumers who did not complain about their negative experiences (silent complainers). Thus, we empirically demonstrate the service recovery paradox for the online purchase setting.

Our results also reveal that for repurchase intention on the Internet, complaining internally is better than complaining externally, see Goetzinger et al. (2006). Customers who decided to complain to an external organization and were satisfied with the response also demonstrated high purchase intention. However, if they were unsatisfied with the response to the complaint, the percentage of repurchase intention drops considerably. To conclude, our findings add important insights to the existing literature through an empirical comparison of different complaint behavior groups on their intentions to repurchase online. Our results underline the importance of service recovery and satisfying complaint handling for electronic commerce.

Managers may win back dissatisfied customers by providing accurate responses. It is most optimal when customers complain directly to the e-tailer. Therefore, management should encourage customers to complain internally. With successful internal complaint management, the e-tailer not only gets direct

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feedback from the consumer but also increases the likelihood of repurchase. Regarding external complainers, it is crucial to ensure that they are satisfied with the response to the complaint. External complaints should therefore be carefully monitored and handled. What is more, companies should encourage silent complainers to voice their complaints, as their repurchase intention is otherwise relatively low.

