

MASTER

Customer relationship management and technology acceptance Scientific research in an online business-2-consumer environment

van Veghel, R.P.J.

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Customer Relationship Management And Technology Acceptance

Scientific Research in an Online Business-2-Consumer Environment

**NIET
UITLEENBAAR**

<i>Date</i>	November 13, 2003
<i>Author</i>	Remco van Veghel (s461695)
<i>TU/e supervisors</i>	Prof. Dr. Martin G.M. Wetzels Dr. Ir. Adam Lindgreen

Abstract

➤ English

Exchange relationships between online vendors and their customers consist of organization-customer and customer-Web site interaction. The dual character of these relationships is examined by extending the TAM with CRM concepts. It is found that concepts from both fields are significant determinants of the desired outcome of CRM, namely customer loyalty.

➤ Dutch

Relaties tussen Internet verkopers en hun klanten bestaan uit verkoper-klant en klant-website interacties. Deze studie onderzoekt het duale karakter van deze relaties door het TAM uit te breiden met CRM concepten. De conclusie is dat concepten uit beide gebieden significante determinanten zijn van de gewenste uitkomst van CRM, namelijk klantloyaliteit.

**NIET
UITLEENBAAR**

Summary

This study follows from the recognition of the dual character of the interaction between organisations and customers over the WWW. This dual character consists of the “traditional” relationship between the organisation and the customer, and the context in which this relationship evolves, namely one that is facilitated by information technology (the WWW). The latter characteristic makes relationships on the WWW different from traditional relationships between brick-and-mortar organisations and their customers, which develop through face-to-face interaction.

It has been argued in the literature that customer loyalty is of critical importance to online businesses, and therefore our consideration of relationships between online vendors and their customers focuses on customer loyalty. And as Srinivasan et al. (2002, p. 41) say, “e-retailers need to develop a thorough understanding of the antecedents of e-loyalty [since] such an understanding can help e-retailers gain a competitive advantage by devising strategies to increase e-loyalty”. Accordingly, the objective of this study may be described as follows:

Examine how e-loyalty can be explained from a TAM and CRM perspective, and thereby extend current insights on e-loyalty and its determinants

In order to achieve this objective, this study answers the following research question:

What, if any, are the determinants of e-loyalty, and how do these determinants interact?

The way this study went about answering this research question is as follows. First, an extensive literature review was conducted, covering the most important issues in this study in order to provide a clear background and an overview of current insights in these issues. A conceptual model was drawn up from the findings in the literature. Then, an online questionnaire was used to collect data from experience online consumers. With this data, the hypotheses that followed from the conceptual model were tested. The outcomes of these tests are the basis for the answer to the research question. This summary is structured according to the structure of this study.

Literature Review

The role that the WWW plays in the purchasing process of consumers is becoming more and more important in today’s market place. This is especially interesting from a CRM perspective because the exchange relationship between online vendors and consumers evolves in an environment that differs from traditional settings. This study focuses on one particular characteristic that differentiates these relationships from traditional relationships between brick-and-mortar organisations and their customers: the interaction is computer-mediated, and not face-to-face. A Web site is, in essence, an IT (Gefen et al., 2003; Moon and Kim, 2001), and interacting over the WWW therefore implies not only interacting with an online vendor, but also with an IT. It has been suggested that this change in interaction interface affects relationship characteristics (e.g. Bauer et al., 2002), and it thereby seems to create a new environment for customer relationship management (CRM) research. The dual character of this interaction demands a dual approach in examining relationships in this context, covering both the CRM and the IT dimension.

At the heart of this exchange, is the relationship between an organisation (the online vendor) and a customer. Therefore, the first dimension of our dual approach is CRM.

CRM can be considered a specific instance of Relationship Marketing, which Morgan and Hunt (1994, p.22) refer to as "all marketing activities directed towards establishing, developing, and maintaining successful relational exchanges". Within this field, CRM is concerned with the relationship between organizations and their final customers. It can be considered "a way of linking the tried and tested discipline of customer segmentation to determine which consumers you want to 'CR' – create relationships with – and which you want to 'CM' – cost-manage" (Gillies *et al.*, 2002, p. 74). This can be done successfully either with or without information technology tools (Gillies *et al.*, 2002). However, a broad array of IT is available in today's market place, with CRM tools that provide support to product configuration or help an organisation track online customer data and select and approach customers (Maselli, 2001; Whiting, 2000).

According to Sheth (2002), the Internet is probably the most significant antecedent to affect relationship marketing in the coming decade, especially in situations of direct interaction between organizations and consumers. This impact may result from WWW characteristics such as the constant availability of information, the possibility to complete transactions on a 24/7 basis, and the easy comparison of multiple suppliers (Bauer *et al.*, 2002; Sharma, 2002). Several researchers have found that the WWW indeed does influence specific relationship characteristics such as customer satisfaction, trust, and commitment (e.g. Anderson and Srinivasan, 2003; Bauer *et al.*, 2002)

To cover for this IT dimension in the interaction between online businesses and their customers, this study applies the technology acceptance model (TAM) (Davis, 1986). This model, that is based on the Theory of Reasoned Action (Ajzen and Fishbein, 1980), has been developed in an organizational context to "provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behaviour across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified" (Davis *et al.* 1989, p. 985). Over time, it has been applied, empirically verified, and extended in several settings, and more recently researchers have applied it to the WWW context (Gefen *et al.*, 2003; Lederer *et al.*, 2000; Moon and Kim, 2001). Moon and Kim (2001) extend the original TAM with a concept called perceived playfulness, which indicates the extent to which an individual perceives that his attention is focused on the interaction with the WWW, the extent to which the person is curious during the interaction, and the extent to which he finds the interaction intrinsically enjoyable or interesting. In turn, Gefen *et al.* (2003) extend the original TAM with a concept from the field of CRM, namely trust. Considering their model as a successful integration of a CRM concept into the TAM, we use it as a basis for our conceptual model; taking an extended TAM (adopting the extensions suggested by Gefen *et al.*, 2003, and Moon and Kim, 2001) as a basis, this study again extends it with concepts from the field of CRM.

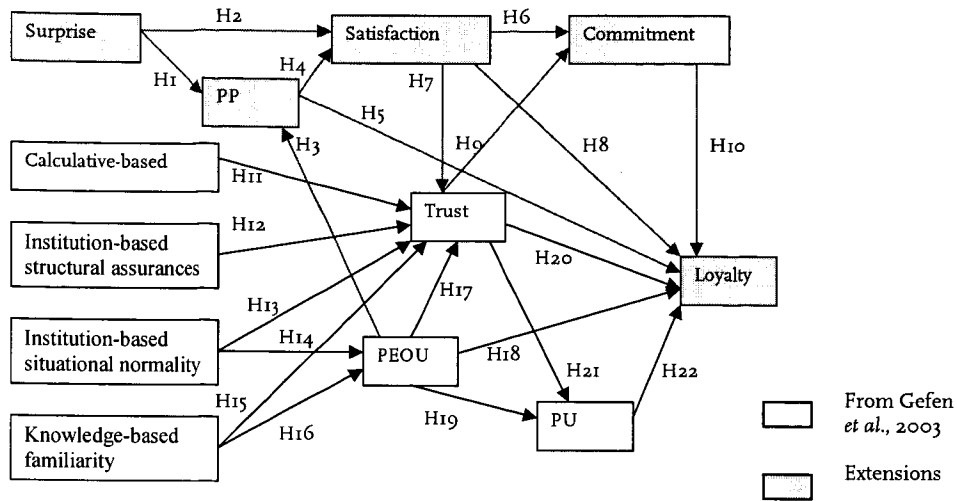
The first concept that we add to the model is customer loyalty, which can be defined as a customer's favourable attitude toward an electronic business resulting in repeat buying behaviour (Anderson and Srinivasan, 2003, p.125). Customer loyalty has been shown to be one of the fundamental drivers of company profitability (Reichheld and Kenny, 1990), and several researchers have emphasised the potential value that a loyal customer base can have for an organisation selling products or services (e.g. Reichheld, *et al.*, 2000a; Reichheld *et al.*, 2000b; Reichheld and Kenny, 1990; Srinivasan *et al.*, 2003). Based on its potential value, especially in online environments (Reichheld and Scheffer, 2000), customer loyalty is the focus of our conceptual model. More specifically, our model examines what the determinants of customer loyalty are, and how these determinants interact.

One of the concepts that we hypothesise to be a determinant of customer loyalty is the concept of trust. Trust has been conceptualised in several ways (e.g. Kumar *et al.*, 1995; Moorman *et al.*, 1992; Morgan and Hunt, 1994), and to assure consistency with the Gefen *et al.* (2003) model, their conceptualisation of trust as “a specific set of beliefs” (including integrity, benevolence, ability, and predictability) is adopted here. As Lindgreen (2003, p. 313) notes, researchers have suggested that trust is “central to successful relationships leading to higher levels of loyalty to the bargaining partner and thus to increased profitability”. Reichheld and Scheffer (2000, p. 107) also emphasise the impact of trust on loyalty when saying “in order to gain the loyalty of customers, [one] must first gain their trust”. Several other researchers have found support for the relationship between trust and customer loyalty as well (e.g. Anderson and Srinivasan, 2003; Lindgreen, 2003; Sirdeshmukh *et al.*, 2002). Trust thus seems to be a very important characteristic in relationships between organisations and customers.

Other determinants of customer loyalty that originate from the field of CRM are satisfaction and commitment. Satisfaction may be defined as “the extent to which benefits actually received meet or exceed the perceived equitable level of benefits” (Bauer *et al.*, 2002, p. 156). Commitment refers to an implicit or explicit pledge of relational continuity between exchange partners (Dwyer *et al.*, 1987). In the literature, the discussion on commitment evolves around two types of commitment, namely calculative and affective (De Ruyter and Wetzels, 1999; Geyskens *et al.*, 1996). Calculative commitment suggests that commitment is a calculative act, “an act in which costs and benefits are traded off” (De Ruyter and Wetzels, 1999, p. 59). According to Geyskens *et al.* (1996,), calculative commitment measures “the extent to which channel members perceive the need to maintain a relationship”. The affective dimension, however, “represents an affective orientation toward and value congruence with the business partner” (De Ruyter and Wetzels, 1999, p. 59), and “expresses the extent to which channel members like to maintain their relationship with specific partners” (Geyskens *et al.*, 1996, p. 303). In the context of this study, the relationship between online vendors and their customers, switching costs are proposed to be seemingly irrelevant. It is suggested that the only “costs” incurred when switching from one online vendor to another involve a few mouse clicks and filling in personal information for billing purposes (which normally should not take longer than a couple of minutes). Calculative commitment is therefore not included in this study, as commitment is conceptualised as an affective matter.

A final concept that we include in our study is the concept of surprise. Surprise may be defined as “a short-lived emotion that results in a specific pattern of reactions” (Lindgreen and Vanhamme, 2003, p. 225). Although the emotion of surprise in itself is neutral, it may be succeeded by another emotion that colours it positively (e.g. feelings of joy) (Lindgreen and Vanhamme, 2003; Vanhamme and Snelders, 2001). In line with suggestions in recent studies (Lindgreen and Vanhamme, 2003; Rust and Oliver, 2000; Vanhamme and Snelders, 2001) we propose that surprise is an antecedent of satisfaction. Based on the suggestion that surprise may lead to emotions of joy we further suggest that surprise may positively affect perceived playfulness (which may result from an “enjoyable” interaction).

The conceptual framework is graphically depicted in the figure below. All relationships in the model are hypothesised to be of a positive magnitude.



Relationships in Conceptual Model ^a

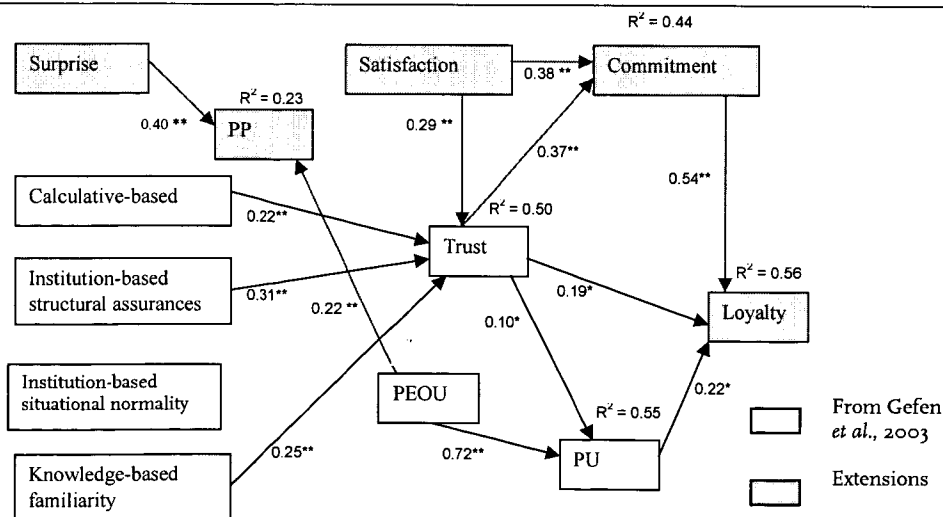
^a PU=Perceived Usefulness, PEOU=Perceived Ease of Use, PP=Perceived Playfulness

Empirical Research

The research was conducted by means of an online questionnaire among experienced online shoppers. The respondents were asked to assess the last online vendor whom they had bought a CD, book, or video from. Multi-item scales were employed based on previously published scales (e.g. Davis, 1989; Kumar *et al.*, 1995; Schurr and Ozanne, 1985; Zeithaml *et al.*, 1996) and where needed these were adapted for the current context. In total, 315 students answered to the request sent by email, and participated in this research. Eventually, 246 responses were used in data analysis using PLS.

Findings

We estimated the parameters in the structural model using PLS analysis as implemented in PLS-Graph Version 3.0 to test the substantive relationships as laid down in the conceptual model. This analysis led to the rejection of 9 hypotheses. The hypotheses that could not be rejected may be found in the figure below.



Conceptual Model with Parameter Values ^a

^a PU=Perceived Usefulness, PEOU=Perceived Ease of Use, PP=Perceived Playfulness

* Significant at P < 0.05

** Significant at P < 0.01

R² Variance explained by variables in the model (0 < R² < 1)

These results show that the effect of surprise in this study is limited. Although the positive relationship between surprise and perceived playfulness is found to be significant ($\beta = 0.40$), no support is found for the effect of surprise on satisfaction. Furthermore, no significant effect of the concept of perceived playfulness on other concepts (satisfaction, customer loyalty) was found in this study.

Regarding the effect of satisfaction, our results reveal a positive effect on both trust ($\beta = 0.29$) and commitment ($\beta = 0.38$), but no significant direct effect on customer loyalty was found. Only three of the trust antecedents from the Gefen *et al.* (2003) model were actually found to have a significant affect on trust. The effect of institution-based situational normality could not be validated, whereas its effect on PEOU is also not significant. Furthermore, the proposed effects of PEOU on trust and loyalty are also found to be not significant. PEOU does influence perceived playfulness ($\beta = 0.22$). Trust itself is found to positively affect commitment ($\beta = 0.37$), perceived usefulness ($\beta = 0.10$), and customer loyalty ($\beta = 0.19$). Perceived usefulness is further affected by PEOU ($\beta = 0.72$), and in addition to the effect of trust, customer loyalty is also positively affected by commitment ($\beta = 0.54$) and perceived usefulness ($\beta = 0.22$).

Discussion and Conclusion

The hypotheses that were not rejected in this study reveal some interesting insights. The aim of this study was examining how e-loyalty can be explained from a TAM and CRM perspective. As can be seen in the figure above, customer loyalty is directly affected by perceived usefulness, trust, and commitment. The extent to which online customers are loyal to a particular e-vendor may therefore be explained by these three concepts and their antecedents. The strongest influencer of customer loyalty is commitment. The addition of satisfaction and commitment in particular, and the strong relationships that have been found between these concepts and the concepts in the Gefen *et al.* (2003) model, make the model that has been developed in this research a more complete model than the one that Gefen *et al.* (2003) presented.

The most important thing is that we found an answer to the research question that was posed. The figure above may be considered our answer to this question. It shows the direct and indirect determinants of customer loyalty and the relationship between these determinants. The fact that both concepts from the field of CRM (trust and commitment), and from the TAM (perceived usefulness) have such statistically significant direct influence on customer loyalty justifies the combination of a TAM perspective and a CRM perspective. Apparently, the online environment actually affects the relationship between online businesses and their customers. Online businesses should therefore take the contextual influences into consideration in their attempt to enhance loyalty among customers, because the traditional insights may not be sufficient here. It seems important to focus on making sure that consumers perceive a Web site as being easy to use and useful in their activities, and at the same time focus on satisfying these consumers and enhancing their trust and commitment towards the vendor.

In terms of theoretical implications, we can say that the model that has been developed in this study is a more complete model that can be used to explain and predict customer loyalty in an online environment. The fact that the effect of commitment is so strong, suggests that the Gefen *et al.* (2003) model may be somewhat simplistic when attempting to explain customer loyalty. In addition, the rejected hypotheses provide some interesting opportunities for further research. First of all, the link between surprise and satisfaction still needs additional research to validate the suggested relationship. Furthermore, it seems interesting to find out whether or not the effect of satisfaction on customer loyalty

can indeed be fully mediated by trust and commitment. It also seems interesting to examine whether or not perceived playfulness is a more general characteristic that has no distinguishing power to affect the consumers' choice of an electronic vendor.

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Remco van Veghel
November 2003

Chapter 1. Introduction

Today, millions of people around the world use the Internet for purposes ranging from communicating and seeking for information to applying for jobs and making financial transactions (GeR, 2002). In this respect, the role that the Internet plays in the purchasing process of consumers is becoming more and more important (TNS NIPO, 2002).

What makes this latter aspect of the use of the Internet so interesting is that it involves an exchange relationship between organisations and their customers in an environment that differs from traditional settings. At the heart of this exchange, there is the relationship between an organisation (the online vendor) and a customer. However, this relationship differs from traditional relationships between brick-and-mortar organisations and their customers in that the interaction is mediated by an information technology, namely the Internet. In other words, "the primary interface with an e-vendor is an information technology (IT), a Web site" (Gefen *et al.*, 2003, p. 52), and not a salesperson in a store. It has been suggested that this change in interaction interface affects relationship characteristics (e.g. Bauer, Grether, and Leach, 2002), and it thereby seems to create a new environment for customer relationship management research.

Besides the CRM characteristics that may be applied to characterize the relationship between an online business and its customers, the acceptance of the IT in question (the Internet) may be a relevant aspect to affect the interaction in this context. In the past, extensive research has been devoted to technology adoption, and one particular theory in this field that has received a lot of attention is the Technology Acceptance Model (TAM) (Davis, 1986). This model has been developed in an organizational context, but has been applied and extended in several other contexts such as the World Wide Web (e.g. Gefen *et al.*, 2003; Lederer, Maupin, Sena, and Zhuan, 2000; Moon and Kim, 2001). The current research uses the TAM as the foundation of its research model, while expanding it with concepts from the field of CRM.

Of the set of concepts in CRM that have gained a lot of attention in the CRM literature, this study particularly focuses on customer loyalty in an online environment as researchers have argued that loyalty is of vital importance to businesses in this environment (e.g. Reichheld and Kenny, 1990; Reichheld *et al.*, 2000a; Reichheld *et al.*, 2000b).

The objective for this research is:

- *Examine how e-loyalty can be explained from a TAM and CRM perspective, and thereby extend current insights on e-loyalty and its determinants*

The research question that this study tries to answer is:

- *What, if any, are the determinants of e-loyalty, and how do these determinants interact?*

In order to explore the insights in the existing literature in the fields of interest, chapter 2 will provide a literature review. In chapter 3, the research model will be discussed. Hypotheses will be drawn up, and the research methodology will be described. The results of this study will be discussed in chapter 4, and chapter 5 covers the conclusions that can be drawn from these findings.

Chapter 2. Literature Review

The aim of this chapter is to provide a clear background for the study, and an overview of what research findings have been published in the fields that this study focuses on. The current study will use these findings as a foundation for its research, and it will try to add insights to what is currently available in the literature.

In section 2.1, the construct of customer relationship management will be discussed. Section 2.2 focuses on the World Wide Web, an information technology that may influence the relationship between organisations and their customers. Then, in section 2.3, the technology acceptance model will be discussed. The TAM will form a basis for the research model that the current study uses. Sections 2.4, 2.5, and 2.6 will discuss a number of concepts that characterise the relationship between an organisation and its customers. These concepts will eventually be combined with insights from the TAM field to develop the research model for this study in chapter 3.

2.1. Customer Relationship Management

This first section deals with customer relationship management, one of the two perspectives that will be applied to examine the concept of customer loyalty and its determinants in an online environment. First, the term relationship marketing will be discussed in section 2.1.1. From this, the term customer relationship management (CRM) follows in section 2.1.2. Section 2.1.3, discusses the use of information technology in today's CRM practice.

2.1.1. Relationship Marketing

The term relationship marketing appeared in marketing literature for the first time in 1983, when Leonard L. Berry presented his paper "Relationship Marketing" (Berry, 1983) at the American Marketing Association's Services Marketing Conference. Berry defined the term as "attracting, maintaining and – in multi-service organisations – enhancing customer relationships".

The reason for Berry (1983) to write an article about relationship marketing was that he signalled that, with regard to marketing, service firms devoted most of their resources to attracting new customers, whereas the efforts to retain existing customers were minimal at that time. Acknowledging the importance of keeping valued customers with the organisation, he suggested that the attraction of new customers is merely the first step in the marketing process, and that transforming indifferent customers into loyal customers should be part of that process as well. Focusing only on attracting new customers, Berry (1983) says, is needlessly restrictive and potentially wasteful.

Berry's conceptualisation of the term relationship marketing focuses on relationships between organisations and customers. But, as Morgan and Hunt (1994) show, there are many other important relationships that organisations need to manage (see Figure 1).

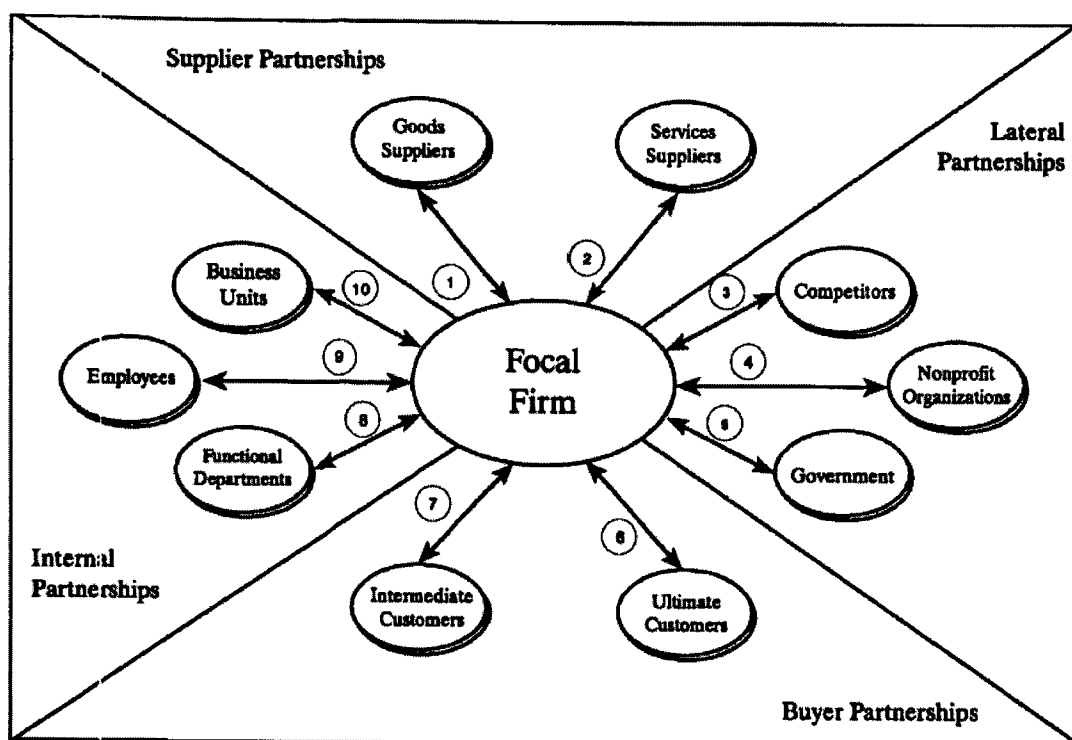


Figure 1 – Relationship Marketing (Morgan and Hunt, 1994, p. 21)

In this framework, the conceptualisation of Berry (2002) corresponds to the relationship between the focal firm and its ultimate customers (arrow 6). More will be said about this particular relationship in the next section, as this is the relationship of interest for this study.

Looking at Morgan and Hunt's (1994) visualisation of relationship marketing, we can say that relationship marketing encompasses all relationships between the organisation and its surrounding parties including supplier partnerships, lateral partnerships, buyer partnerships and internal partnerships. As Morgan and Hunt (1994, p. 22) put it, relationship marketing refers to "all marketing activities directed towards establishing, developing, and maintaining successful relational exchanges", where relational exchange, as compared to a single discrete transaction, "traces to previous agreements [and] is longer in duration, reflecting an ongoing process" (Dwyer, Schurr, and Oh, 1987, p. 13).

According to Brodie *et al.* (1997), the most commonly accepted view of marketing has been that marketing involves the integrated analysis, planning, and control of the "marketing mix" variables (the 4 P's; product, price, place, and promotion). They say that the "new" paradigm, relationship marketing, views marketing as an integrative activity involving personnel from across the organisation, with emphasis on facilitating, building and maintaining relationships over time. The latter view focuses more on longer-term relationships. Grönroos (1990, p.138) defines the purpose of marketing in this new context as follows: "to establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of the partners involved are met. This is achieved by a mutual exchange and fulfilment of promises."

2.1.2. Customer Relationship Management

Just like Berry (1983) did when he first introduced the term relationship marketing, this study will focus on the relationship indicated by arrow number 6 in figure 2.1: the relationship between organisations and their final customers. To clearly distinguish from the broad range of relationships included in the construct of relationship marketing as defined by Morgan and Hunt (1994), we will use the term Customer Relationship Management (CRM) to indicate the specific relationship between organisations and customers. Even though this distinction between CRM and relationship marketing may seem straightforward, researchers have used the term relationship marketing when actually focussing on the relationship between an organisation and its customers only (e.g. Berry 2002, Dwyer *et al.* 1987). While there appears to be no specific date, book or article marking the introduction of the “customer relationship” concept into business and academic thinking (Crosby 2002), it seems important to identify CRM as only one of the several areas of interest in relationship marketing. Using both terms to denote the exact same field of interest may lead to unnecessary confusion.

Over time, the term Customer Relationship Management has been defined in various ways by many researchers and organisations Table 1 on page 18 provides an overview of some of these definitions.

Although these definitions are all different, they share the same main idea. The term “business strategy” seems very important, appearing in most of the definitions found. It seems relevant to note here that CRM is not a synonym for an information technology tool (as the definition by Zikmund *et al.* (2003) might suggest). Rather, CRM technology should be considered an enabler, which may advance relationship marketing and customer retention when it is used to make the service encounter more effective (Webber, 1998). More will be said about the use of information technology in CRM in section 3 of this chapter.

A high number of scientific papers on CRM deal with concepts that are believed to be vital in the relationship between an organisation and its customers. The most important concepts that can be found in these papers will be discussed in depth in sections 2.4, 2.5 and 2.6.

Table 1 – Definitions of CRM

Source	Definition
Crosby (2002, p.217/218)	Customer Relationship Management is a comprehensive business strategy, which should be aimed at cementing long-term, collaborative relationships with customers based on mutual trust
Swift, (2002, p. 12)	Customer Relationship Management is an enterprise approach to understanding and influencing customer behaviour through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer profitability
Gillies, Rigby and Reichheld (2002, p. 74)	CRM is a way of linking the tried and tested discipline of customer segmentation to determine which customers you want to 'CR' – create relationships with – and which you want to 'CM' – cost-manage
Zikmund, McLeod and Gilbert (2003, p. 11)	CRM is a business strategy that uses information technology to provide an enterprise with a comprehensive, reliable, and integrated view of its customer base so that all processes and customer interactions help maintain and expand mutually beneficial relationships
Feinberg <i>et al.</i> (2002, p. 470)	CRM is a comprehensive business and marketing strategy that integrates technology, process, and all business activities around the customer
Webber (1998, p. 257)	Relationship marketing involves creating a relationship between producer and individual client, interacting with the client and collecting information about him/her, adapting products more closely to the client's needs, and maintaining two-way communication with the client, so that the client becomes loyal and feel ownership of the product
CRM UK Ltd.(2003)	Customer Relationship Management is the establishment, development, maintenance and optimisation of long-term mutually valuable relationships between consumers and organisations. Successful CRM focuses on understanding the needs and desires of the consumer and is achieved by placing these needs at the heart of the business by integrating them with the organisation's strategy, people, technology and business processes
ERPWEB (2001)	Customer Relationship Management is a customer-focused business strategy designed to optimise revenue, profitability, and customer loyalty. By implementing a CRM strategy, an organisation can improve the business processes and technology solutions around selling, marketing and servicing functions across all customer touch-points (for example: Web, e-mail, phone, fax, in-person).
BusinessWeek Online (2002)	Customer Relationship Management (CRM) is a business strategy to select and manage customers to optimise long-term value. CRM requires a customer-centric business philosophy and culture to support effective marketing, sales, and service processes. CRM applications can enable effective Customer Relationship Management, provided that an enterprise has the right leadership, strategy, and culture

A successful implementation of CRM into the organisation may result in a number of benefits for the organisation. Zikmund *et al.* (2003, p. 6) identify four "potential benefits to the organisation": customer focus, customer retention, share of customer, and long-term profitability. They further identify potential benefits for customers, such as continuity and personalised service.

It is important to note, however, that researchers have also identified a number of potential drawbacks of CRM in practice. One of the major downsides of CRM that has been pointed out in the literature is the large upfront investment in a company's infrastructure that CRM implementation requires (Zikmund *et al.*, 2003). Gillies, Rigby and Reichheld (2002, p. 73) argue that "[m]ore than half of all CRM programmes fail to

pay back their return on an investment that can be as high as US\$130 million." They therefore recommend that an organisation analyse, with regard to their CRM programme, whether customer loyalty could be better promoted by "a low- or no-tech solution". This way, organisations can prevent engaging in unnecessarily high investments. Recent research by Giarte (2003) shows that Dutch organisations mostly blame the CRM software implementers, rather than the CRM software itself, for the long payback period they experience after investing in CRM programmes.

A second potential downside of CRM may be found in a paper by Moorman *et al.* (1992), who suggest that long-term relationships foster relational dynamics that dampen the positive impact of trust, commitment, and involvement on use. This suggestion parallels findings by Grayson and Ambler (1999) who conclude that longer-term relationships have benefits but also inherent drawbacks. One of these drawbacks can be that building trust and commitment will not always have a simple and positive effect on clients' use of the organisation's services.

Probably the most significant "cost" for customers that is identified in the literature, is the potential loss of privacy (Zikmund *et al.*, 2003). Privacy, along with concerns about online security, has been argued to be a crucial issue in Internet use by consumers (see Luo, 2002, and section 2.2.1 of this report). Organisations may try to reduce these concerns by providing for example third-party seals of approval, and clear privacy statements.

2.1.3. CRM and the use of Information Technology

Sheth (2002, p. 591) states that "probably the most significant antecedent [to affect relationship marketing in the coming decade] is the impact of the Internet and information technology (IT), especially in all situations where there is a direct [...] customer relationship". Other literature on CRM also discusses the use of information technology (e.g. Crosby 2002; Gillies *et al.*, 2002; Law, Lau, and Wong 2003; Zikmund *et al.*, 2003), thereby indicating the relevance of information technology in contemporary CRM practice.

There are multiple approaches as to how an organisation practices customer relationship management. Coviello *et al.* (1997) identify three types of marketing that fall into the category of relational marketing (as they focus on marketing towards customers, the term CRM would be in place here): database marketing, interaction marketing and network marketing. Database marketing involves the use of information and technology-based tools, with the intent to retain customers over time. The focus is on the market transaction, and involves both economic and information exchange. Interaction marketing implies face-to-face interaction within relationships; personal contacts are made, and individual relationships established. Network marketing refers to the totality of relationships in a market or industry.

Having witnessed the emergence of information technology in the past decade, a follow-up study by Coviello *et al.* (2001) identifies a fourth approach in relational marketing, e-marketing, which reflects an approach to the market that is facilitated and mediated by the application of information technology, beyond databases, to enable interactivity. They believe that IT has revolutionised marketing practice by enabling the emergence of first database marketing, and now e-marketing.

Although the rest of this study will concentrate on CRM efforts that indeed include the use of information technology, and the Internet specifically (e-marketing), it is important

to emphasise once more that CRM is not synonymous to information technology. Crosby (2002) even calls the idea that CRM is only about information technology a myth. In reality, according to BusinessWeek Online (2002) CRM is “not about technology any more than hospitality is about throwing a welcome mat on your front porch”. There are examples of successful CRM programmes at each point in the technology spectrum – no, low and high (Gillies *et al.*, 2002).

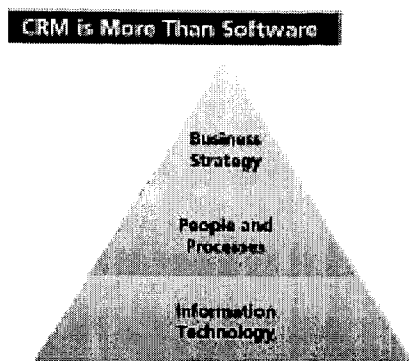


Figure 2 – CRM and IT (BusinessWeek Online, 2003)

A broad array of IT is available in today's market place, with CRM tools that provide support to product configuration or help track online customer data and selecting and approaching customers (Maselli, 2001; Whiting, 2000). CRM tool providers even launch IT that claims to enhance customer privacy (Kemp, 2001). However, as Starkey and Woodcock (2002, p. 274) put it, “technology is merely one of the enabling and supporting elements of CM [(customer management)] and will not, by itself, cure other shortcomings”. The most significant part of CRM is the human aspect – the long-term relationship between the customer and the company (Law, Lau and Wong 2003). Along with people and processes, information technology should be aligned with the business goals of building, maintaining and enhancing customer relationships (Gillies *et al.*, 2002).

2.2. The World Wide Web

It has been argued in the previous section that information technology (IT) may play an important role in an organisation's CRM programme. This section will deal with one particular IT that may significantly affect the interaction between an organisation and its customers. This IT, called the World Wide Web (WWW), is currently being used by millions of people worldwide, and its popularity as a purchase channel is growing. The current study focuses on relationships between organisations and their customers that develop through interaction over the WWW.

In the first section, the use of the WWW by consumers is discussed to illustrate the importance of this IT in today's interaction between organisations and their customers. Section 2.2.2 then discusses the potential impact that interaction over the WWW may have on the relationship between these two parties.

2.2.1. Use of the World Wide Web

A research by TNS NIPO (2002) concluded that the role that the Internet plays in the purchasing process of consumers is becoming more and more important. During the

process leading to the purchase of a product or service, these consumers may use the WWW in several ways. On the one hand, the WWW may be used as a source of information prior to purchasing through traditional channels. In this light, a research by TNS Interactive found that 15 per cent of all Internet users have bought goods or services outside the Internet as a direct result of information found online. On the other hand, consumers may buy products directly from the Web. This study focuses on behaviour and attitude of the latter group of consumers.

The results from a research by TNS Interactive into Internet usage and online shopping in 37 countries worldwide in the year 2002 may be found in the Global eCommerce Report (GeR) 2002 (GeR, 2003). From this report, the following figures on Internet use and online shopping worldwide, and in the Netherlands specifically, can be derived. Key data may be found in appendix A.

❖ *Internet usage*

The findings from this research by TNS Interactive show that, on average, 34 per cent of all people in these 37 countries had used the Internet at least once during the last 4 weeks prior to the TNS Interactive research. In Canada, the Netherlands, the USA and Denmark, more than 60 per cent of the population age 16 and up used the Internet at least once during that same period. The country average of 34 per cent is a growth of 10 percent compared to the year 2001 (31 per cent), even though some countries (such as Norway) have seen a drop. TNS Interactive states that the future looks bright for the Internet, as Internet usage growth has been strongest in the under 20 age group.

❖ *Online shopping*

Of particular interest for this study, is the extent to which people use the Internet as a shopping channel. The GeR 2002 focuses on four aspects of online shopping, namely the number of people that engage in online shopping, the products that these people buy online, the amount of money spend online, and the reasons why people do not purchase products online. These aspects will be discussed briefly below.

◆ *Number of people shopping online*

As in the year 2001, the USA retains its position as the nation with the greatest proportion of online shoppers with 32 per cent of all Internet users shopping online in the year 2002. For the Netherlands this figure is 20 per cent, for Australia 14 per cent. The global average is 15 per cent. As spending power increases with age (up to 40 years of age), shopping online continues to be an increasingly popular option with age (up to the age of 40). The low percentage of people in the youngest age group (under 20) is likely to be due to the non-availability of credit (and cards), rather than any difference in attitude and willingness.

TNS Interactive found that 28 per cent of Internet users globally have either shopped online in 2002, or planned to do so in the next 6 months. Countries with a higher percentage of people that use the Internet have a greater proportion of present and future shoppers. TNS Interactive states that the future of online shopping continues to look healthy in many countries.

◆ *Products purchased online*

Books and CDs have been the most popular items to purchase online for the past three years. These products may be characterised as "low-risk" items, since the financial risk is relatively low (small amounts of money) and the products are homogenous (so shoppers know what they will receive). The increase in acquisition of higher price items appears to imply a growing confidence in online shopping and ordering.

- ♦ *Reasons not to shop online*

The main reasons for people not to purchase online are security related. Other important reasons for not purchasing online are the perceived ease and/or fun of buying in a store, and the feeling that "you don't know what you get" when buying from a Web site. Younger people are more likely to consider the perceived high price of online goods and services as a barrier to purchase as compared to older people.

- ♦ *Money spent online*

47 per cent of online shoppers had spent between €1 and €100 online in the last 4 weeks prior to the TNS Interactive research. More than 1 in 20 online shoppers spent over €1,000 in the same time. The increase in the online sales of high value items may imply an increased confidence in online shopping and ordering. Men, on average, spent substantially more online than women online - €606 vs. €345.

- ❖ *The Netherlands*

In addition to the global figures, some interesting figures on the use of the Internet and online shopping in the Netherlands may be subtracted from the GeR:

Internet usage in the Netherlands increased by 9 per cent in 2002 (61 per cent) as compared to 2001 (52 per cent). The percentage of online shoppers amongst Internet users has only increased by 2 per cent over the last year. TNS Interactive suggests that this is due to the fact that new Internet users tend to be more conservative in terms of online shopping.

Men and the 30-39 age group are the biggest online shoppers amongst Internet users. Online shoppers above the age of 40 spend most money online. They buy expensive products online, such as holidays and PC hardware. Just like the global results, books and music/CD's are the most popular products bought online

Looking at WWW use from another perspective, researchers have examined the extent to which businesses use the WWW in their activities towards customers (Arnott and Bridgewater, 2002; Rowley, 2001; Sharma, 2002). In a paper that replicates and extends a study by Basu and Muylle (2002), Muylle and Basu (2003) examine the extent to which companies in various industries are supporting online processes through their retail Web sites. Amongst their many findings are a number of interesting findings that deserve to be noted here.

- ❖ First of all, Muylle and Basu (2003, p. 5) find that "companies operating in the online marketplace still dedicate most of their efforts to facilitate the product search process (77 per cent), search-related support services (55 per cent), display price information (67 per cent), and offline logistics (60 per cent [...]), [while] support for almost all other commerce processes is growing." They further state that 78.4 per cent of the Web sites they examined supported online sales.
- ❖ With regard to the opportunities that the WWW has to offer, "[w]eb retailers still do not seem to be exploiting the power of the Internet to offer personalised discounts or other ways of tailoring prices to individual customer's levels of price sensitivity, instead continuing to rely on traditional fixed pricing mechanisms" (Muylle and Basu, 2003, p. 6)
- ❖ Comparing the results from the study by Basu and Muylle (2002), Muylle and Basu (2003, p.8) find that "the biggest increase in support was observed for customer service".

2.2.2. Potential impact of the World Wide Web on CRM

Numerous researchers have discussed the impact that the World Wide Web may have on the characteristics of the relationships between organisations and their customers (i.e. Anderson and Srinivasan, 2003; Bauer *et al.*, 2002; Rowley, 2001; Sharma, 2002). According to Sheth (2002, p. 591), the World Wide Web may turn out to be “the most significant antecedent to affect relationship marketing in the coming decade”.

Moon and Kim (2001) suggest that the WWW has such potency that it has made individuals change their information access methods and organisations change their business strategy. According to Arnott and Bridgewater (2002), the Internet may have the potential to result in a marketing revolution. For example, they say, the Internet might have this impact if the potential to interact with customers allows marketers to replicate a “one-to-one”, personal selling relationship that previously existed only in markets that had small numbers of buyers. If such replication is possible, then it may enable marketers “to build strong, sustainable relationships with their customers and enhance brand loyalty” (Arnott and Bridgewater, 2002, p. 86).

The impact that the World Wide Web may have on marketing practice and the relationships between organisations and their customers results from a number of characteristics that make the World Wide Web different from traditional marketing channels. These characteristics will be discussed below.

First of all, the World Wide Web affects the availability of information. “The Internet can instantaneously provide specific and detailed information to a business firm’s employees, suppliers, and customers” (Sharma, 2002, p. 78), and it can do so at any time (24/7), on a global scale (Bauer *et al.*, 2002; Rowley, 2001; Sharma, 2002;). Bauer *et al.* (2002) point out that since the information is electronic, not physical, it can be transferred to any country in the world in just seconds using the worldwide network of data lines. Hereby, the Internet can reduce “dependence on time norms while encouraging non-temporal relationships across time zones” (Sharma, 2002, p. 78). The information that is provided to people visiting a Web site can be personalised to that particular consumer. This is called individualisation (Bauer *et al.*, 2002). The availability of information may be limited as a result of a server (that feeds web pages) being out of service, or due to a temporary overload of the feeding process (Bauer *et al.* 2002). Once contact has been made, customers may be individually identified and targeted (Rowley, 2001).

Another advantage resulting from the 24/7 platform that the Internet provides, is that firms and customers can complete transactions on a 24/7 basis (Bauer *et al.*, 2002; Sharma, 2002). The World Wide Web facilitates ordering products and services directly, and the automation of the process of order taking enhances marketing effectiveness while reducing the time and errors associated with traditional order taking (Rowley, 2001).

Closely related to the constant availability and universal accessibility of information, is the effect that the World Wide Web may have on the so-called switching costs for customers. Switching costs can be defined as the effort (monetary and non-monetary) it takes for a customer to switch from a certain supplier to one of its competitors. A full comparison of two competing suppliers or service providers has become very easy on the Internet. As Anderson and Srinivasan (2003, p. 124) put it, “competing businesses are only a mouse-click away in E-commerce settings”. According to them, the reduction in search costs not only increases the likelihood that customers will compare prices, but also enables the customers “to compare the array of benefits that they will derive from the products or services that they buy” (Anderson and Srinivasan, 2003, p. 128). For numerous products

customers can even compare different suppliers on the market on one single website. For instance, a well known website that offers this facility is <http://www.kelkoo.com> (Kelkoo.com, 2003), which even provides multiple websites for customers from different countries. On this website, people can compare suppliers for a wide array of products, including CD's, DVD's, TV's, cell phones and even cars. Intuitively one may suggest that, as the comparison of various competitors on the market becomes easier, customers may tend to switch between competitors more easily as well.

Finally, the relationship between organisations and their customers may be affected by the fact that interaction through the World Wide Web involves computer-mediated interaction. This type of interaction between exchange partners differs from the traditional face-to-face contact that takes place for instance in shops and offices. A clear example of this changing interface type may be found in the retail banking industry, where more and more interaction between banks and their clients takes place over the Internet (De Telegraaf, 2003; Rabobank, 2003; Trendbox, 2003; WebWereld, 2003). It seems intuitive that face-to-face interaction relates to a closer social distance between exchange partners than does computer-mediated interaction. Chan (2003) points out that perceived honesty in exchange relationships is inversely related to social distance. This means that relationships managed at a distance, where social interaction is limited, may result in a lower amount of trust in the relationship.

2.3. Technology Acceptance Model

A Web site is, in essence, an information technology (Gefen *et al.*, 2003; Moon and Kim, 2001). Interacting with an organisation over the WWW therefore implies interacting with an IT instrument. To cover for this second dimension in the relationship between online businesses and their customers, a technology perspective should be applied. In this regard, the technology acceptance model is introduced into this study.

The technology acceptance model, TAM, was designed by Davis in 1986 (Davis, 1989) to explain and predict an individual's acceptance of information technology. With the setting of interest in this study being an IT-mediated interaction, the TAM may be applicable here. This section will argue that it should be possible to explain online purchase intentions of consumers by using the TAM.

First, we will discuss the Theory of Reasoned Action, as this theory forms the foundation for the TAM. Then section 2.3.2 will focus on the TAM itself, followed by a discussion of the application of TAM in relationship with other phenomena, i.e. the World Wide Web and the field of CRM in sections 2.3.3 and 2.3.4.

2.3.1. Theory of Reasoned Action

The Technology Acceptance Model (Davis, 1989) is based on the Theory of Reasoned Action (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975). The TRA originates from the field of social psychology, and is concerned with the determinants of consciously intended behaviours. According to TRA, a person's performance of a specified behaviour is directly affected by his behavioural intention (BI) to perform the behaviour, which in turn is affected by two determinants: the person's attitude (A) and subjective norms (SN) towards the behaviour in question. Behavioural intention reflects the strength of one's intention to perform a specified behaviour. Attitude towards behaviour is defined as an individual's positive or negative evaluation of performing the target behaviour, whereas subjective norms refer to "the person's perception that most people who are important to

him think he should or should not perform the behaviour in question” (Fishbein and Ajzen, 1975, p. 302). A visualisation of the TRA may be found in Figure 3.

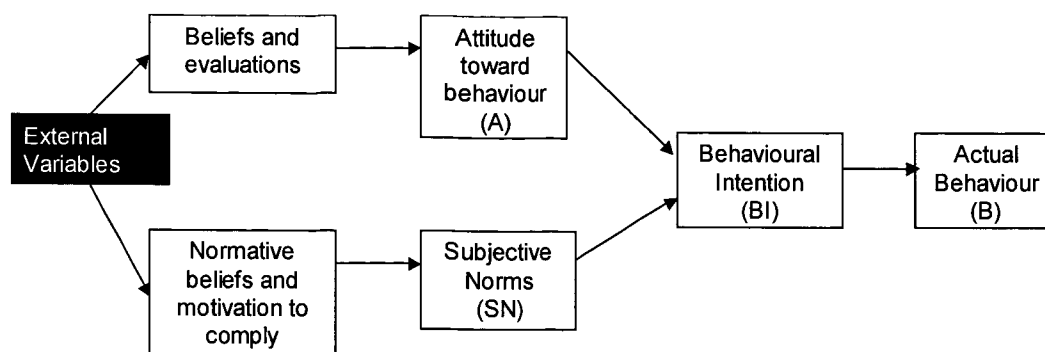


Figure 3 – Theory of Reasoned Action (adapted from Ajzen and Fishbein, 1980, p. 84)

According to the TRA, a person’s beliefs and evaluations influence his attitude toward a behaviour. An individual’s subjective norms are suggested to be determined by his normative beliefs, i.e. perceived expectations of specific referent individuals or groups, and his motivation to comply with these expectations (Fishbein and Ajzen, 1975; Davis *et al.*, 1989). Together, the person’s attitude towards the behaviour and his subjective norms determine his intention to perform the behaviour, which eventually leads to performing or not performing the actual behaviour.

According to Ajzen and Fishbein (1980, p. 4), TRA has been “designed to explain virtually any human behaviour”, which illustrates that the TRA is thus a very general model.

2.3.2. The Technology Acceptance Model

The Technology Acceptance Model (TAM), introduced by Davis (1986), is an adaptation of the original TRA specifically tailored for modelling user acceptance of information systems (Davis *et al.*, 1989). The goal of TAM is “to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behaviour across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified” (Davis *et al.* 1989, p. 985).

Figure 4 gives a graphical representation of the TAM. Davis (1986) identifies two beliefs, perceived usefulness (PU) and perceived ease of use (PEOU), which are of primary relevance for computer acceptance behaviour (Davis *et al.* 1989). Perceived usefulness is defined as “the prospective user’s subjective probability that using a specific application will increase his or her job performance within an organisational context” (Davis *et al.* 1989, 985). Perceived ease of use refers to “the degree to which the prospective user expects the target system to be free of effort” (Davis *et al.* 1989, 985).

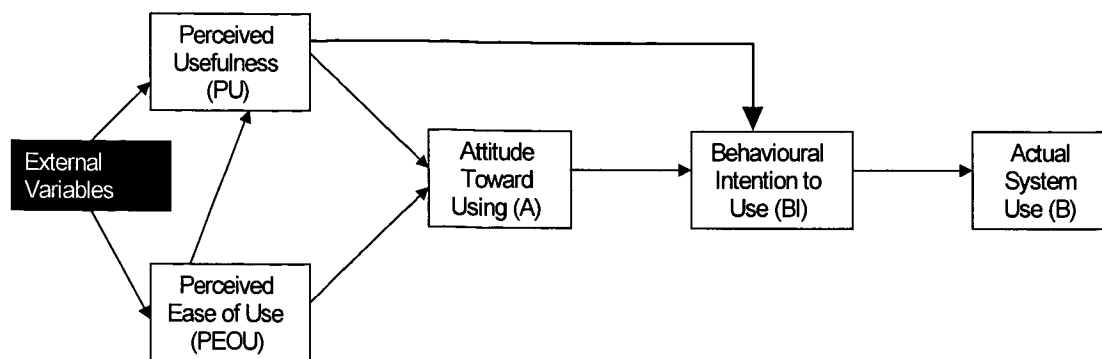


Figure 4 – The Technology Acceptance Model (adapted from Davis *et al.*, 1989, p. 985)

Like in the TRA, the TAM conceptualises that actual behaviour (in the case of TAM, actual computer usage) is determined by an intention to perform this behaviour (BI). The difference lies in the determinants of BI: TAM postulates that BI is determined by the person's attitude toward using (A) and perceived usefulness of the system (PU). These two latter concepts are believed to be affected by the person's beliefs about how easy it is to use the system (PEOU). According to Davis *et al.* (1989, p. 986), the TAM does not include TRA's subjective norm (SN) "because of its uncertain theoretical and psychometric status".

Davis *et al.* (1989) also explain that TAM and TRA differ in several theoretical aspects. One of these aspects comes from the way the determinants of A are modelled. TRA suggests that "salient beliefs are elicited anew for each new context", whereas "TAM's PU and PEOU are postulated *a priori*, and are meant to be fairly general determinants of user acceptance" (Davis *et al.*, 1989, p. 988). This approach attempts to arrive at a belief set that more readily generalises to different computer systems and user populations (Davis *et al.*, 1989).

A study by Davis *et al.* (1989) shows that the TAM compares favourably to TRA. In a study on the use of a computer system by students at the University of Michigan (USA), TAM explained the variance in both BI and A better than TRA did. These results suggest that the TAM does indeed fit the context of human behaviour in relationship to information technology better than the more general TRA.

2.3.3. TAM and the World Wide Web

Davis (1989, p. 334) argued that "future research is needed to address how other variables relate to usefulness, ease of use, and acceptance". Factors contributing to the acceptance of a new IT are likely to vary with the technology, target users, and context (Moon and Kim, 2001).

In this light, several studies have been conducted in which the TAM was applied in different contexts. For instance, recent studies have tested the TAM in settings such as the use of the World Wide Web (Gefen *et al.*, 2003; Lederer *et al.*, 2000; Moon and Kim, 2001; Teo, Lim and Lai, 1999). According to Moon and Kim (2001), "research on the acceptance of the WWW will enhance our understanding of the individual's beliefs or motives to use the WWW and to show how these factors affect the individual's acceptance of using of the WWW". Lederer *et al.* (2000, p. 269) say that "an understanding of the predictors of Web usage could serve a multitude of stakeholders by helping them recognise how to promote usage"

Lederer *et al.* (2000) have tested the TAM in a WWW context and they have tried to identify, in addition to the measures of ease of use and usefulness, antecedents specific to the Web. Their study focused on individuals who use the Web for work-related tasks. Their research findings provide support for TAM; "it confirms that use of Web sites depends on the usefulness and ease of use of the site" (Lederer *et al.*, 2000, p. 277). They also show that ease of understanding and ease of finding affect perceived ease of use, and that information quality predicts perceived usefulness of a Web site.

In their study on Internet usage, Teo, Lim, and Lai (1999) focus on intrinsic and extrinsic motivation for the use of the Internet. Davis *et al.* (1992) defined extrinsic motivation as the performance of an activity because it is perceived to be instrumental in achieving valued outcomes that are distinct from the activity itself, such as improving job performance, pay, etc. Intrinsic motivation reflects the performance of an activity for no apparent reinforcement other than the process of performing the activity *per se* (Davis *et al.*, 1992). The two concepts from the TAM, perceived usefulness and perceived ease of use can be seen as forms of extrinsic motivation.

Like Davis *et al.* (1992), Teo, Lim and Lai (1999) include in their model the concept of perceived enjoyment as a form of intrinsic motivation that influences a person's Internet usage. They propose that people may engage in a particular behaviour if it yields fun and enjoyment, and that implies that individuals may adopt technology because its use is enjoyable. Previous research by Davis *et al.* (1992) found that perceived enjoyment indeed significantly affects a person's intention to use a word processing program. Teo *et al.* (1999) find that perceived enjoyment is positively related to frequency of Internet usage and daily Internet usage. However, it is also found that perceived usefulness plays a more significant and stronger role in determining the acceptance and usage of the Internet.

Closely related to the conceptualisation of perceived enjoyment as a determinant of intended use, Moon and Kim (2001, p. 218) propose the playfulness concept as "an individual's intrinsic salient belief to explain the individual's intrinsically motivated behaviours", and test the TAM which is extended with the concept of perceived playfulness (see figure 2.5). They define three dimensions of perceived playfulness: (a) the extent to which the individual perceives that his attention is focused on the interaction with the WWW; (b) the extent to which the person is curious during the interaction; and (c) the extent to which he finds the interaction intrinsically enjoyable or interesting. In terms of (a), perceived playfulness refers to a state in which the individual "loses self-consciousness, becomes absorbed in the activity, and be more intensely aware of mental processes" (Moon and Kim, 2001, p. 219). Moon and Kim (2001) note that, while these three dimensions are linked and interdependent, they do not necessarily occur together in practice.

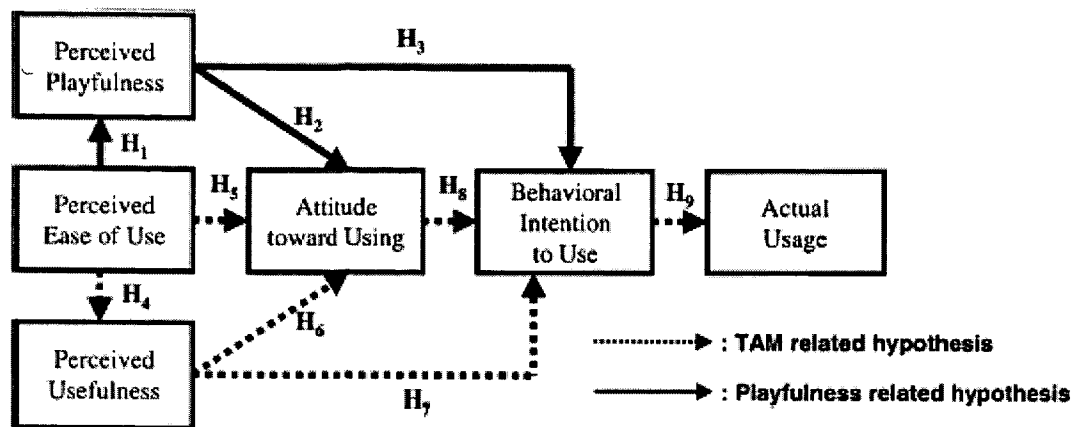


Figure 5 – TAM and Perceived Playfulness (Moon and Kim, 2001, p. 220)

Their study among US graduate school students provides results that support their extension of the traditional TAM. Their findings show that “the extended TAM explains the individual’s WWW acceptance behaviours better than TAM” (Moon and Kim, 2001, p. 226).

Comparing the studies by Teo *et al.* (1999) and by Moon and Kim (2001), one could say that the concept of perceived playfulness encompasses the concept of perceived enjoyment, and more. The scale items that these researchers used in their questionnaires show a significant overlap. For instance, one of the items used to measure perceived playfulness reads “Using WWW gives enjoyment to me for my task” (Moon and Kim, 2001, p. 228).

2.3.4. TAM and Customer Relationship Management

Another extension of the original TAM has been one proposed by Gefen, Karahanna and Straub (2003). They introduce a concept from the field of CRM, namely trust, into TAM, and conceptualise it as a determinant of perceived usefulness and intended use.

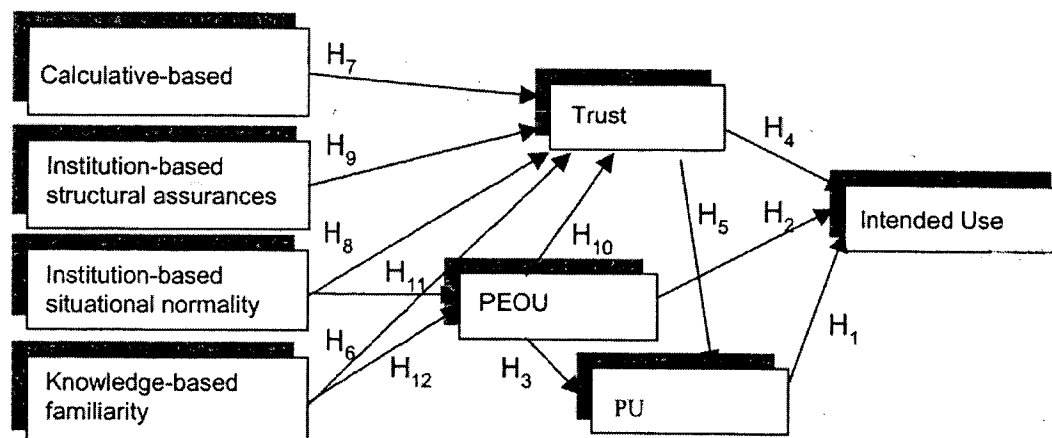


Figure 6 – TAM and Trust (Gefen *et al.*, 2003, p. 53)

Based on the recognition that customer loyalty is a financial imperative for electronic vendors, and that a vital key to retaining customers is maintaining their trust in the e-

vendor (Reichheld and Scheffer, 2000), Gefen *et al.* (2003) examine customer trust as a primary reason for why customers return to an electronic vendor. In addition to trust as an explanatory variable, they adapt the TAM perspective to predict and explain WWW use; "A web site is, in essence, an information technology. As such, online purchase intentions should be explained in part by the technology acceptance model, TAM" (Gefen *et al.*, 2003, p. 53).

To gather data, Gefen *et al.* (2003, p. 66) administered a questionnaire to "experienced online shoppers asking them to assess the last online book or CD vendor from whom they had made a purchase". These "experienced shoppers" were students at a business school in the United States. Their findings support the conceptualisation of trust as a determinant of perceived usefulness and intended use. Consumer decisions to return to an e-vendor are affected by both the consumer's trust in the online vendor, and technological aspects of the Web site interface (perceived ease of use and perceived usefulness). Considering this model as being a successful integration of a CRM concept into the TAM, it will be used as a basis for the research model for the current study (see chapter 3).

2.4. Customer Loyalty

Taking the TAM as a basis for this research, it is now time to identify which concepts from the field of CRM should be combined with this model to create a complete picture covering both perspectives. This section focuses on the concept of customer loyalty. Throughout the literature on relationship marketing and CRM, customer loyalty takes an important place, and it has been argued that customer loyalty should be the main goal of all CRM efforts.

After defining the term customer loyalty in section 2.4.1, the importance of customer loyalty for organisations on- and offline will be discussed in section 2.4.2.

2.4.1. Defining Customer Loyalty

As with most concepts in CRM, various definitions of customer loyalty may be found in the literature. A selection of these definitions is provided in Table 2 below.

Table 2 – Definitions of Loyalty

Source	Definition
Dick and Basu (1994, p. 100)	The relationship between relative attitude toward an entity (brand/service/store) and repeat patronage.
Bettencourt (1997, p. 385)	Customer behaviours indicating allegiance to and promotion of the organisation's interests beyond individual interests.
Oliver (1997, p. 392)	A deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour.
Srinivasan <i>et al.</i> (2002, p. 42)	A customer's favourable attitude toward the e-retailer that results in repeat buying behaviour.
Zikmund, McLeod, and Gilbert (2003, p. 69)	A customer's commitment or attachment to a brand, store manufacturer, service provider, or other entity based on favourable attitudes and behavioural responses, such as repeat purchases.
Anderson and Srinivasan (2003, p. 125)	The customer's favourable attitude toward an electronic business resulting in repeat buying behaviour.

Looking at a customer's loyalty towards a particular brand (often referred to as brand loyalty), the first researchers focussed on the behavioural aspect of this concept only (Caruana, 2002). Tucker (1964, p. 32) states that "no consideration should be given to what the subject thinks nor what goes on in his central nervous system, his behaviour is the full statement of what brand loyalty is." Caruana (2002) refers to a review by Jacoby (1971), which confirms that the focus in prior research has been entirely on behavioural outcomes, ignoring consideration of what went on in customers' minds. He further says that brand loyalty was simply measured in terms of its outcome characteristics (Caruana, 2002).

Kotler (1997) notes that apparent brand loyalty can in fact be simply evidence of habit, indifference, a low price, a high switching cost or non-availability of other brands. Applying a purely behavioural perspective on customer loyalty may therefore be considered too simplistic. Later studies have emphasised that research on customer loyalty (whether that is loyalty towards a specific brand (brand loyalty), or towards a particular store or service provider) should adopt a wider perspective (Dick and Basu, 1994; Caruana, 2002; Srinivasan *et al.*, 2002; Yi and Jeon, 2003). A two-dimensional conceptualisation of customer loyalty has been proposed, consisting of a behavioural and an attitudinal component. Including an attitudinal perspective "allows us to gain supplemental understanding of loyal behaviour" (Zins, 2001, p. 270). Yi and Jeon (2003, p. 231) underline the need for both attitudinal and behavioural loyalty measurements, as they say that "research findings support two-dimensional measurements as more accurate in determining a customer's future behaviour".

The definitions by Anderson and Srinivasan (2003) and Srinivasan *et al.* (2002) include a behavioural as well as an attitudinal component, and are specifically defined for an online environment. Therefore, we combine and adopt their definitions for customer loyalty in this study; *Customer loyalty refers to a customer's favourable attitude toward an electronic retailer resulting in repeat buying behaviour.*

2.4.2. Importance of Customer Loyalty

Customer loyalty has been shown to be one of the fundamental drivers of company profitability (Reichheld and Kenny, 1990), and several researchers have emphasised the potential value that a loyal customer base can have for an organisation selling products or services (e.g. Reichheld, *et al.*, 2000a; Reichheld *et al.*, 2000b; Reichheld and Schefter, 2000; Reichheld and Kenny, 1990; Srinivasan *et al.*, 2003). An illustration of the importance of customer loyalty for an organisation may be found in the text box below.

"[In a WWW environment,] customer choice is no longer bound by constraints such as geographic distance or accessibility of information. Buyers have automatic access to the full spectrum of potential suppliers and are informed by a wealth of data [...], all available at a mouse-click. [...] Where, in the past, customer loyalty was just one weapon to use against competitors, today it has become essential to survival." (Reichheld *et al.*, 2000b, p. 178/179)

The importance of customer loyalty has been especially stressed for businesses that engage in electronic commerce activities. Reichheld, Markey Jr and Hopton (2000a, p. 134) say that in today's business environment, "the advantages of market share, cost position and service quality no longer guarantee success". "The unique economics of e-business make customer loyalty more important than ever", Reichheld and Schefter (2000, p. 105) say. "In fact, the general pattern – early losses, followed by rising profits –

is actually exaggerated on the Internet. At the beginning of a relationship, the outlays needed to acquire a customer are often considerably higher in e-commerce than in traditional retail channels. [...] In future years, though, profit growth accelerates at an even faster rate" (Reichheld and Schefter, 2000, p. 106). See the figure below for an illustration of the so-called customer life-cycle economics for a number of product categories.

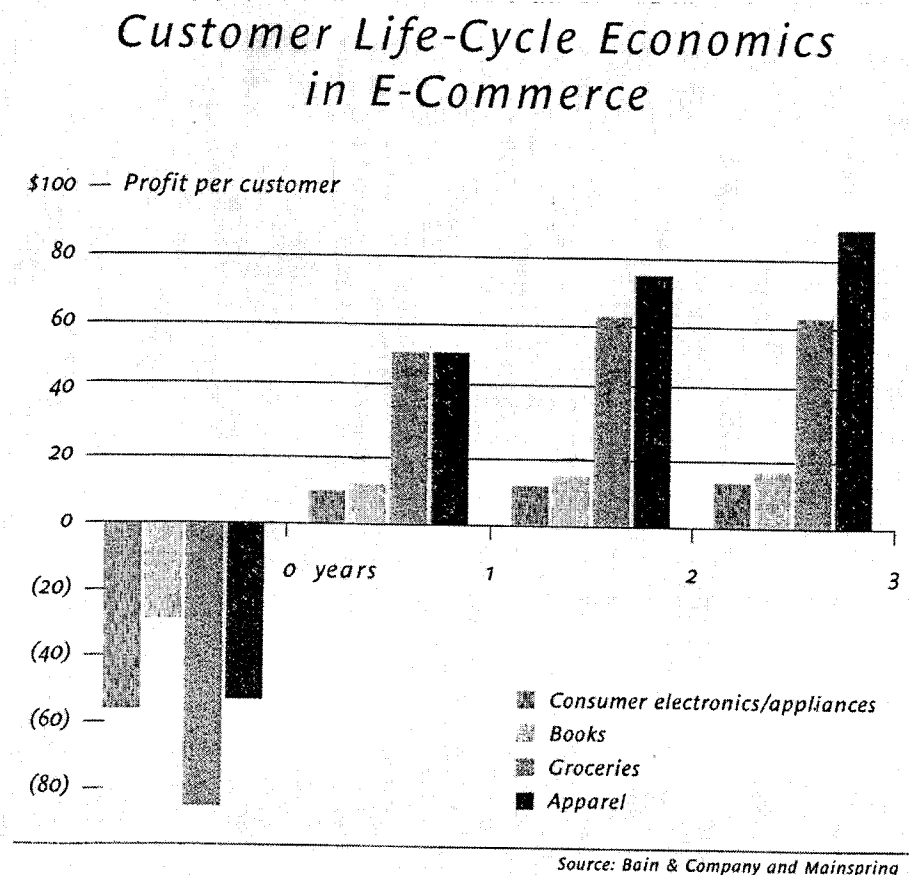


Figure 7 – Customer Life-Cycle Economics (Reichheld and Schefter, 2000, p. 107)

Reichheld *et al.* (2000a) further say that relative retention explains profits better than market share, scale, cost position or any of the variables usually associated with competitive advantage. For instance, their research has shown that “in business after business, 60-80 per cent of customers who defect to a competitor said they were satisfied or very satisfied on the survey just prior to their defection” (Reichheld *et al.*, 2000a, p. 137).

The claim that customer loyalty is an important determinant of a companies' profitability, is supported by Reichheld *et al.* (2000b, p. 173), who state that “successful online sellers base their marketing strategy on the pursuit of loyal, profitable customers”. They further say that leading e-commerce executives are concluding that the importance of customer loyalty holds more than ever, due to a number of characteristics of this new business environment. For instance, due to low barriers for new businesses that want to enter the electronic market, costs for online customer acquisition “skyrocketed”. As a result of this, only the retailers that attract “long-term, repeat-purchase customers” will be able to cover the costs of acquiring them (Reichheld *et al.*, 2000b, p. 174). The same is argued by

Reichheld and Schefter (2000, p. 106), who state that “acquiring customers on the Internet is enormously expensive, and unless those customers stick around and make lots of repeat purchases over the years, profits will remain elusive.”

Perhaps the most illustrative findings about the potential value of customer loyalty are those published in a paper by Reichheld and Kenny (1990). They measured the impact of customer retention on over two dozen service businesses, and concluded that a five-point improvement in customer retention can lead to profit swings of 25per cent to 80per cent. Besides the clearly observable advantages of margins and growth, they also found hidden advantages resulting from improved customer retention: it shifts the competitive battlefield from the open market, over which they have limited control, to inside their own branches, where they have much greater control. They illustrate their findings by exemplifying the advantages of a higher customer retention rate for retail banks: “if a bank loses fewer customers than its competitors, it needs to replace fewer customers before it starts growing. As a result, its marketing initiatives yield more net new relationships than a bank that has a larger deficit of lost customers to fill. At the same time, the balances of the retained customers continue to grow” (Reichheld and Kenny, 1990, p. 20).

Srinivasan *et al.* (2002) focused on a number of other potential beneficial effects that customer loyalty can have for an organisation, and they find evidence that supports Dick and Basu’s (1994) findings that loyalty is positively related to word-of-mouth behaviour among customers. Reichheld and Schefter (2000, p. 107) suggest that the Internet amplifies the lucrative effect of referrals, since “word of mouse spreads even faster than word of mouth”. Srinivasan *et al.* (2002) also find that loyal online customers are willing to pay more to continue doing business with their preferred retailers.

2.5. Determinants of Customer Loyalty: Trust

The CRM perspective mentioned in the research objectives involves examining what CRM concepts can be considered determinants of customer loyalty. The first determinant that this study identifies is trust. This concept will be discussed in this section. Other determinants of customer loyalty will be discussed in section 2.6.

2.5.1. Definition of Trust

The term trust has been used extensively in the literature discussing relationships between parties of all kind (e.g. colleagues, suppliers, buyers) and as Gefen *et al.* (2003, p. 55) note, “trust has been conceptualised in a variety of ways”. To prevent confusion and miscommunication, it seems important to clarify what the term trust exactly implies in this particular study. Before defining what trust means in this study, prior research on this topic will be discussed. Table 2.C provides an overview of a number of conceptualisations that have been displayed in prior research.

Table 3 – Definitions of Trust

Source	Definition
Mayer, Davis, and Schoorman (1995, p. 712), also adapted by Jarvenpaa <i>et al.</i> (1998, p. 31)	The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party
Morgan and Hunt (1994, p. 23)	When one party has confidence in an exchange partner's reliability and integrity
Moorman, Zaltman, and Deshpande (1992, p. 315)	A willingness to rely on an exchange partner in whom one has confidence
Gefen (2000, p. 726)	The confidence a person has in his or her favourable expectations of what other people will do, based, in many cases, on previous interactions
Lindgreen (2003, p. 313)	A partner, who trusts another partner, has confidence in that partner and relies on that partner as an exchange partner
Zikmund, McLeod and Gilbert (2003, p.75)	The willingness of the customer to rely on the organisation or brand to perform its stated function
Sirdeshmukh, Singh, and Sabol (2002, p. 17)	The expectations held by the consumer that the service provider is dependable and can be relied on to deliver on its promises
Rousseau <i>et al.</i> (1998, p. 395)	A psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another
Crosby, Evans, and Cowles (1990, p. 70)	A confident belief that [the exchange partner] can be relied upon to behave in such a manner that the long-term interest of the customer will be served

Moorman *et al.* (1992, p. 315) identify two general approaches to trust in the existing literature: the first approach views upon trust as “a belief, sentiment, or expectation about an exchange partner’s trustworthiness that results from the partner’s expertise, reliability, or intentionality”, while the second approach sees trust as “a behavioural intention or behaviour that reflects a reliance on a partner and involves vulnerability and uncertainty on the part of the trustor”. They then combine these two views into one definition of trust (see table 2.C).

Other researchers centre their discussion of trust on terms like honesty, benevolence (e.g. Kumar *et al.*, 1995; Sirdeshmukh *et al.*, 2002) and trustworthiness (e.g. Mayer *et al.*, 1995). Mayer *et al.* (1995) suggest that benevolence, together with integrity and ability can be seen as factors of perceived trustworthiness of the other party. Morgan and Hunt (1994, p. 23) say that “the literature on trust suggests that confidence on the part of the trusting party results from the firm belief that the trustworthy party is reliable and has high integrity, which are associated with such qualities as consistent, competent, honest, fair, responsible, helpful, and benevolent”.

In order to create structure in this field of inconsistent perceptions of trust, an analysis by Gefen *et al.* (2003) may be considered to be useful. Gefen *et al.* (2003) identify four main views of trust that can be found in the literature. Researchers that adopt the first view look upon trust as a specific set of beliefs dealing primarily with the integrity, benevolence, and ability of another party. A second stream of researchers views trust as a general belief that another party can be trusted, while the third view conceptualises trust as a feeling of affect towards the other party. The fourth stream adopts a combination of these elements. Gefen *et al.* (2003, p. 60) adopt the first view, namely “the conceptualisation of trust as a set of specific beliefs”, including integrity, benevolence, ability, and predictability. They

hereby go along with a “separation between trust and actual behavioural intentions in the ongoing relationship of customers and e-vendors”, which they say is “consistent with the theoretical foundations of TAM [...] (i.e. the theory of reasoned action)” (Gefen *et al.*, 2003, p. 60). Trusting the other party may lead to behavioural intentions, but is not synonymous for these intentions. This view is also in line with what Morgan and Hunt (1994, p. 24) say: “just as behavioural intention is best viewed as an outcome of attitude and not as part of its definition (Fishbein and Ajzen, 1975), “willingness to rely” should be viewed as an outcome [...] of trust and not as a part of how one defines it”.

The research by Gefen *et al.* (2003) has been discussed in section 2.3.4, which showed that their study incorporated the concept of trust into the original Technology Acceptance Model (TAM). The current study will focus on combining concepts from the field of CRM with the insights from the TAM as well, with the Gefen *et al.* (2003) model as the basis for the research model for this study. Therefore the conceptualisation of trust that Gefen *et al.* (2003) use in their research will be adopted here.

2.5.2. Importance of Trust

Trust has been shown to be a vital factor in the relationship between exchange partners. As Lindgreen (2003, p. 313) notes, researchers have suggested that trust is “central to successful relationships leading to higher levels of loyalty to the bargaining partner and thus to increased profitability, because trust encourages partners to co-operate, seek long-term benefits and refrain from opportunistic behaviour”. Dwyer, Schurr and Oh (1987) call trust a pivotal facet of expectation development, Gefen (2000, p. 725) suggests that it is “a major factor influencing the successful proliferation of E-commerce”. Reichheld and Scheffer (2000, p. 107) also emphasise the significance of trust when saying that “in order to gain the loyalty of customers, [an organisation] must first gain their trust”.

As the particular environment of interest for this study is the World Wide Web, it is especially relevant to know how important trust is in the online world. The text below leaves no doubt in this regard.

On-line, customers can't look a sales clerk in the eye, can't size up the physical space of a store or office, and can't see and touch products. They have to rely on images and promises, and if they don't trust the company presenting those images and promises, they'll shop elsewhere. [...] Price does not rule the Web; trust does.” (Reichheld and Scheffer, 2000, p. 107)

According to Hoffman, Novak and Peralta (1999, p. 80), “the reason more people have yet to shop online or even provide information to Web providers in exchange for access to information, is the fundamental lack of faith between most businesses and consumers on the Web today. In essence, consumers simply do not trust most Web providers enough to engage in “relationship exchange” involving money and personal information with them.”

Illustrative for the importance of trust in e-commerce, and in line with what Hoffman *et al.* (1999) say, are the figures from the report that has already been mentioned in section 2.2.1. According to the GeR 2002 (GeR, 2003, p. 13), “the biggest reasons for not purchasing online continue to be security related with 30 per cent of abstainers stating that they didn't want to give credit card details and 28 per cent citing general security concerns”. Another 15 per cent of the respondent that had never bought a product directly from a website indicated that they do not engage in purchasing products or

services online due to a lack of trust in online brands. Luo (2002, p. 112) proposes that "increasing customers' trust online is a solution to online related privacy concerns and an important way to boost e-commerce". This means that there may be a lot to gain from "promoting trust and confidence on the Internet" (Better Business Bureau Online, 2003). Hoffman, Novak and Peralta (1999, p. 85) suggest that "ultimately, the most effective way for commercial Web providers to develop profitable exchange relationships with online customers is to earn their trust".

2.5.3. Trust Antecedents

Acknowledging the importance of trust in the relationship between an organisation and its customers, it seems interesting to know what determines the development of trust in an exchange partner. Or, as Gefen (2000, p. 726) puts it, "if trust is indeed an important aspect of E-commerce, then understanding antecedents of this trust should be a prime concern of E-commerce website owners". A review of literature on the concept of trust provides a number of so-called trust antecedents.

Johnson and Grayson (1999) identify four types of trust, which may be seen as different sources of consumer trust. These four types of trust are generalised trust (the general level of confidence [a person] maintain[s] in the absence of reason to doubt), system trust (based on rules dictated by legislative and regulatory institutions), process-based trust (that which is developed through repeated interaction in a specific dyadic relationship), and personality-based trust (a function of an individual's propensity to trust, determined by one's personality traits). As Johnson and Grayson (1999) do not provide empirical evidence for their typology, Lindgreen (2003) uses his study to determine whether these four types of trust actually do exist. He finds support for the typology, as "the study confirmed the propositions that there are different types of trust (generalised trust, system trust, process-based trust and personality-based trust) and that each type of trust is a valuable strategic variable" (Lindgreen, 2003, p. 322). Lindgreen (2003, p. 322) further emphasises that "when one type of trust is not available it is possible and necessary to draw on other types".

In a paper on trust production and privacy concerns on the Internet, Luo (2002) adapts a typology that Zucker (1986) has introduced. This typology identifies three types of trust production mechanisms: characteristic-based trust (based on individual commonalities, or commonalities such as similar technologies in B2B environments), process-based trust (produced from past exchange or expected future exchange) and institutional-based trust (tied to formal societal structures). This classification shows similarity to the one suggested by Johnson and Grayson (1999), as both identify the antecedents of process-based trust and institutional-based trust (or system trust).

Another typology of sources of trust may be found in a paper by Harris (forthcoming), who identifies three types of trust that are suggested to exist along a continuum from low trust to high trust: calculative trust (including institutional trust), knowledge-based trust, and affect-based trust (feelings). Very similar to this typology is the one that Rousseau *et al.* (1998) provide (calculative trust, relational trust, and institutional trust).

The typology that will be used in the current study, however, is the one that Gefen *et al.* (2003) suggest. They initially identify five types of trust antecedents, namely personality-based trust, cognition-based trust, knowledge-based trust, calculative-based trust, and institution-based trust. The first two types, they say, are more relevant for initial trust formation, whereas their study focuses on consumers who had prior experience with a

particular e-vendor. As the current study applies the same focus, these two types of trust antecedents will not be taken along in the remainder.

The remaining trust antecedents identified by Gefen *et al.* (2003) are the following:

- ❖ Knowledge-based familiarity: Trust develops as a result of prior experience with the what, who, how, and when of what is happening
- ❖ Calculative-based trust antecedents: The recognition that the other party has nothing to gain from not being trustworthy builds trust
- ❖ Institution-based situational normality: People tend to extend greater trust when the nature of the interaction is in accordance with what they consider to be typical and, thus, anticipated
- ❖ Institution-based structural assurances: Trust results from an assessment of success due to safety nets such as legal recourse, guarantees, and regulations that exist in a specific context

In line with the study by Gefen *et al.* (2000), these four trust antecedents will be taken along in this study.

2.5.4. *Trust and Customer e-Loyalty*

The effect that the extent to which customers trust a particular online vendor may have on these customers' loyalty towards that vendor has been discussed in a number of studies. Lindgreen (2003) and Reichheld and Schefer (2000), for instance, say that trust is important in the development of a loyal customer relationship.

Based on the argument that when one trusts the opposing party, the perceived risk involved in the relationship with this party is likely reduced, Sirdeshmukh *et al.* (2002) also suggest a positive relationship between trust and loyalty. Zikmund *et al.* (2003) propose the same positive relationship, based on similar arguments of reduced risk and believes of reliability and integrity about the other party. Furthermore, Chan (2003) suggests a positive effect of trust on relationship outcomes including loyalty.

Anderson and Srinivasan (2003, p. 128) state that "in the electronic commerce context, customer who do not trust an e-business will not be loyal to it even though they are generally satisfied with the e-business". Alike the researchers mentioned above, they base their proposed positive effect of trust on loyalty on the risk-reducing role that trust may play. They especially emphasise the relevance of this risk reduction in a WWW environment, as they say that one of the main reasons for the importance of trust or confidence in an online business is the perceived level of risk associated with online purchasing.

The positive relationship between trust and customer loyalty will be used in the development of the research model in the next chapter.

2.6. Determinants of Customer Loyalty: Satisfaction, Commitment, and Surprise

Besides trust, there are a number of other concepts that researchers have found to be related to customer loyalty. These concepts, i.e. satisfaction, commitment, and surprise, will be discussed in this section. First, the sections 2.6.1, 2.6.2, and 2.6.3 provide definitions of these concepts. Section 2.6.4 shows a number of interaction models that have been used in prior research to determine the relationships between the different concepts.

2.6.1. Satisfaction

In the context of relationship marketing, customer satisfaction is often viewed as a key determinant of customer retention. The intuitive, positive relationship between satisfaction and loyalty can be explained by some simple thoughts. A dissatisfied customer is more likely to search for information on alternatives and more likely to switch to a competitor than is a satisfied customer. Also, a dissatisfied customer may be more likely to try to reduce dependence on that particular party. More will be said about this relationship in section 2.6.

Anderson and Srinivasan (2003, p. 125) define "e-satisfaction" as "the contentment of the customer with respect to his or her prior purchasing experience with a given electronic commerce firm". Other researchers have focused more on what this contentment may result from. Bauer *et al.* (2002, p. 156), for example, adopt a definition by Gruen (1995) and define the term satisfaction as "the extent to which benefits actually received meet or exceed the perceived equitable level of benefits." This definition emphasises the relationship between prior expectations and actual experience, which may be referred to as the expectation disconfirmation theory. According to this theory, it is thought that satisfaction will result only when expected performance targets are exceeded. Khalifa and Liu (2003, p. 32) support this view, as they define satisfaction as "the collective outcome of customer's perception, evaluation, and psychological reaction to the consumption experience with a product or service". They further suggest that earlier research has suggested the use of desires instead of expectations to measure disconfirmation and resulting satisfaction.

As Vanhamme and Snelders (2001) point out, different types of satisfaction have been defined: (1) *consumer's transaction specific satisfaction*, which reflects the evaluation of a specific purchase or consumption occasion, (2) *consumer's brand satisfaction or consumer's overall satisfaction*, which reflects the overall evaluation based on many experiences of the same kind, (3) *microeconomic satisfaction*, i.e. satisfaction of all consumers at the firm-level, and (4) *macroeconomic satisfaction*, which denotes satisfaction at the level of a society or a culture. The focus of this study is on consumer's overall satisfaction, that is the consumer's evaluation of one or more experiences with a specific exchange partner (in this case, as will be discussed later on in this report, an online vendor of books, CD's, and/or video's).

2.6.2. Commitment

In addition to satisfaction, the concept of commitment has been discussed extensively in prior research. As de Ruyter and Wetzels (1999, p. 57) note, "in recent marketing theory, as well as in the broader context of all social sciences dealing with relationships, it has been recognised that commitment is a central element in establishing and maintaining long-term relationships". The relevance of commitment has also been shown by Bettencourt (1997), who found that customer commitment is significantly related to many beneficial customer behaviours, including positive word-of-mouth behaviour and communicating service problems to the firm.

As with most other concepts in the field of CRM, several definitions of the term commitment may be found in the literature. De Ruyter and Wetzels (1999, p. 59) adopt a definition of Dwyer *et al.* (1987), and define commitment as referring to "an implicit or explicit pledge of relational continuity between exchange partners". Pritchard *et al.* (1999, p. 335) describe commitment as "a stable preference that [is] bound by an attitude of resistance to change". Morgan and Hunt (1994, p. 23) define relationship commitment as

“an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it”, whereas Moorman *et al.* (1992, p. 316) simply define it as “an enduring desire to maintain a valued relationship”. Bauer *et al.* (2003, p. 156) use a definition that was drawn up in prior research by Anderson and Weitz (1992). They describe commitment with regard to a business relationship as “a desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship and a confidence in the stability of the relationship”.

Several researchers (e.g., Allen and Meyer, 1990; De Ruyter and Wetzels, 1999; Fullerton, 2003; Geyskens, Steenkamp, Scheer, and Kumar, 1996; Zins, 2001) – acknowledging that there may be several different motivations that can lead to commitment – have distinguished between two types of commitment, namely calculative commitment (or continuance commitment) and affective commitment. The term calculative commitment suggests that commitment is a calculative act, “an act in which costs and benefits are traded off” (De Ruyter and Wetzels, 1999, p. 59). According to Geyskens *et al.* (1996,), calculative commitment measures “the extent to which channel members perceive the need to maintain a relationship”. Verhoef, Franses, and Hoekstra (2002) consider switching costs or relationship termination costs as important antecedents of calculative commitment. Other factors that may lead to calculative commitment are dependence and lack of choice (Fullerton, 2003). As Geyskens *et al.* (1996) say, calculative commitment may be considered a negative motivation to maintaining a relationship. Due to this negative motivation, Verhoef *et al.* (2002, p. 204) suggest that “customers with a high level of calculative commitment should not be expected to advise other consumers to do business with the supplier”.

The affective dimension “represents an affective orientation toward and value congruence with the business partner” (De Ruyter and Wetzels, 1999, p. 59), and “expresses the extent to which channel members like to maintain their relationship with specific partners” (Geyskens *et al.*, 1996, p. 303). Allen and Meyer (1990, p. 2) describe affective commitment as “an affective or emotional attachment to the organisation such that the strongly committed individual identifies with, is involved in, and enjoys membership in, the organisation”. Verhoef *et al.* (2002, p. 204) say that “since affectively committed customers feel attached to the organisation because of positive feelings, it is argued that these customers will display positive behaviour for the organisation”. An illustration of the positive effect of affective commitment is provided by Fullerton (2003), who finds that affectively committed customers are more likely to accept price increases.

Findings in CRM literature (e.g. De Ruyter and Wetzels, 1999; Geyskens *et al.*, 1996; Kumar *et al.*, 1994) suggest that the role of the two types of commitment in the relationship between two parties may be different, and perhaps even opposite. For instance, De Ruyter and Wetzels (1999) find that affective commitment positively affects co-operation, whereas calculative commitment affects this characteristic negatively. Considering both types of commitment separately instead of applying one overall conceptualisation seems necessary and logical.

In this current study, which focuses on the relationship between online vendors (selling low-risk products) and their customers, only the affective type of commitment is taken into account. The reason for this is that in this particular situation, switching costs are proposed to be seemingly irrelevant. The only “costs” incurred when switching from one online vendor to another would be a few mouse clicks and filling in personal information for billing purposes (which normally should not take longer than a couple of minutes). Calculative commitment is therefore suggested to be insignificant in this context.

As second reason for not including calculative commitment in this research is a more practical one. The research model for this study (see section 7.3.3) is already a complex model, and including a second type of commitment may make the model too complex to be practically useful.

2.6.3. *Surprise*

Although not being considered a direct determinant of customer loyalty, the concept of surprise will be included as one of the concepts of interest in this study as well. The reason for this is twofold. First of all, recent literature (Lindgreen and Vanhamme, 2003; Rust and Oliver, 2000; Vanhamme and Snelders, 2001) has suggested that surprise is an antecedent of satisfaction, which is in turn considered to be one of the most important constructs in relationship marketing (see section 2.6.1). The second reason for including surprise in this study is that the construct has not yet had a lot of attention in the literature. Therefore, this study will try to extend the current insights on this topic. The fact that surprise has not yet had a lot of attention in the literature, has been illustrated by Lindgreen and Vanhamme (2003), who state that only few researchers have attempted to examine the effect(s) of surprise on different marketing variables such as word-of-mouth, customer satisfaction and customer retention.

According to Lindgreen and Vanhamme (2003, p. 225), surprise may be defined as “a short-lived emotion that results in a specific pattern of reactions”. When products, services or attributes are unexpected or misexpected (precise expectations about the product, service or attribute do not occur), they are believed to elicit surprise. The emotion of surprise in itself is neutral, yet it is frequently succeeded by another emotion that colours it positively (e.g. surprise and feelings of joy) or negatively (e.g. surprise and anger) (Lindgreen and Vanhamme, 2003; Vanhamme and Snelders, 2001). When talking about positive and negative surprises, these terms refer to the blend of surprises with a subsequent positive and negative emotion, respectively.

Lindgreen and Vanhamme (2003) point out that it has been suggested in prior research that emotions are key for companies that wish to develop personalised relationships with their customers and, in doing so, retain these customers. In the discussion on the concept of customer loyalty (section 2.4), it has already been argued that customer loyalty is more than just the behavioural aspect of repeat buying. The attitudinal aspect that should be included in loyalty measurements suggests that emotions can indeed play a role in determining the conditions of customer relationships.

Rust and Oliver (2000) say that features that are “surprisingly pleasant” have the capacity to delight customers, and delighting customers is exactly what businesses need to do according to Rust *et al.* (1996). Customer delight is considered to be “the highest level of customer satisfaction and translates into better outcomes (e.g. higher customer retention)” (Vanhamme and Snelders, 2001, p. 27).

Vanhamme and Snelders (2001) investigate the process underlying the link between surprise and satisfaction. The suggestion for this link is based on prior empirical work that found that delight results from a combination of surprise and joy. Their conclusion is, however, that no empirical results have convincingly validated the proposition that surprise enhances satisfaction, and that further research should first show that a relationship exists between the two concepts. This study will try to extend current insights into this relationship.

2.6.4. Interaction Models

In this section, a number of models will be presented that researchers have used to examine the relationships between the concepts that have been discussed above. The findings from these studies will be used in the next chapter to hypothesise how the different concepts are interrelated, and to hypothesise what concepts may be considered determinants of customer loyalty.

2.6.4.1. Satisfaction and Customer Loyalty

In their paper "E-Satisfaction and E-Loyalty: A Contingency Framework", Anderson and Srinivasan (2003) investigate the impact of satisfaction on loyalty in the context of electronic commerce.

In their model, they focus on two types of variables: individual level variables, and company level variables. The focus of this current study is on the concepts that Anderson and Srinivasan (2003) denote as "company level variables", and therefore these individual level variables will not be discussed here.

The company level variables that are investigated are trust and perceived value. The term perceived value may be defined as the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given (Zeithaml, 1988). Anderson and Srinivasan (2003) argue that the importance of perceived value in electronic commerce environments stems from the fact that it is easy to compare product features and prices online. It is proposed that perceived value contributes to the loyalty of an electronic business by reducing an individual's need to seek alternative service providers.

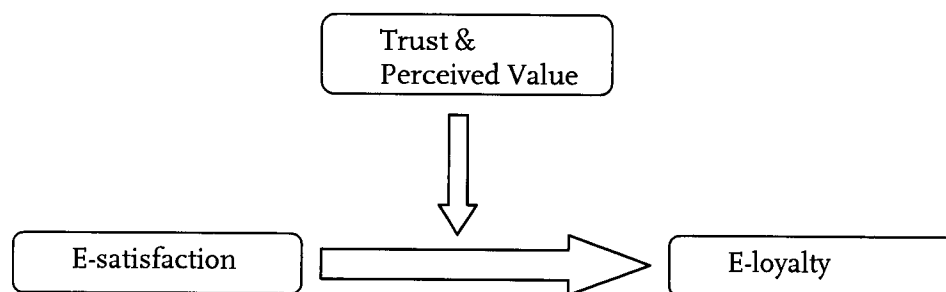


Figure 8 – Satisfaction and Loyalty (adapted from Anderson and Srinivasan, 2003, p. 130)

Despite the intuitive appeal of the relationship between satisfaction and customer loyalty, the strength of the relationship between satisfaction and loyalty was found to vary under different conditions: Anderson and Srinivasan (2003) found that both trust and perceived value significantly moderate the impact of e-satisfaction on e-loyalty in a positive way.

2.6.4.2. Satisfaction, Trust, and Commitment

Bauer, Grether and Leach (2002) focus on the influence that important characteristics of the World Wide Web can have on key variables of relationship marketing, i.e. commitment, satisfaction and trust. These important WWW characteristics are the Internet's interactive structure, its constant availability of information, its efficient transfer of information, its individuality of communication, and its integration of communication and transaction. A visualisation may be found in figure 9.

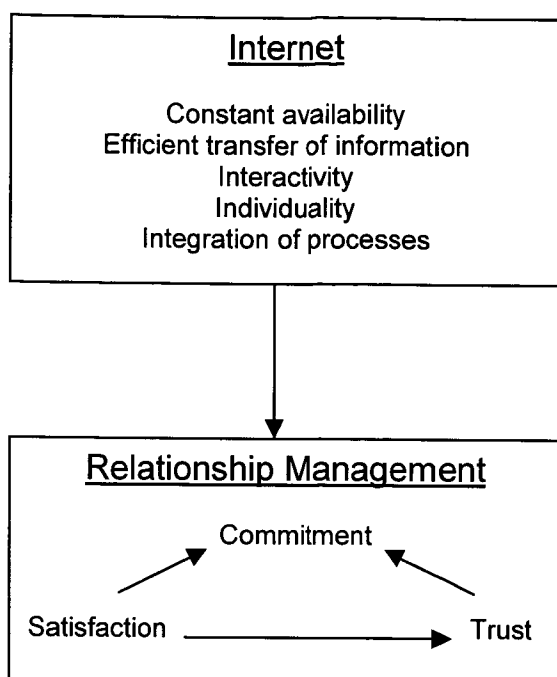


Figure 9 – The Internet and CRM (adapted from Bauer *et al.*, 2002, p. 157)

Bauer *et al.* (2002) analyse two topics, namely the interrelationships between the CRM concepts, and the influence that the WWW characteristics may have on these concepts. Of particular interest here, is the mutual relationship between the CRM concepts of commitment, satisfaction and trust.

With regard to these mutual relationships, their research provided them with the following insights.

- ❖ Trust in a business relationship has a positive effect on commitment
- ❖ Satisfaction has an even greater direct effect on commitment than trust has
- ❖ Satisfaction has a positive effect on trust
- ❖ Taking into account both the indirect and direct effects, satisfaction has the strongest influence on commitment

2.6.4.3. Trust, Value, and Customer Loyalty

In their paper “Consumer Trust, Value and Loyalty in Relational Exchanges”, Sirdeshmukh, Singh, and Sabol (2002) develop a framework for understanding the behaviours and practices of service providers that build or deplete consumer trust and the mechanisms that convert consumer trust into value and loyalty in relational exchanges. The most relevant part of their research describes the interrelation between trust and loyalty.

Sirdesmukh *et al.* (2002) identify two different kinds of trust in their model, namely trust in management policies and practices (MPP) and trust in frontline employees (FLE). For the purpose of clarity and reduction of complexity, this distinction will not be made here. What remains after modifying their model according to what is relevant here, is shown in figure 2.10.

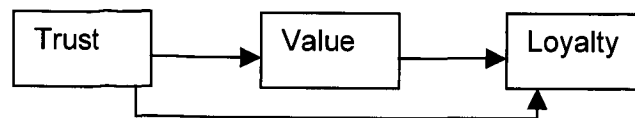


Figure 10 – Trust, Value, and Loyalty (adapted from Sirdeshmukh *et al.*, 2002, p. 16)

Sirdeshmukh *et al.* (2002) test a model that proposes interrelationships among consumer trust and loyalty, in which value serves as a critical mediating variable. Value is defined as the consumer's perception of the benefits minus the costs (monetary and non-monetary) of maintaining an ongoing relationship with a service provider, which is in essence similar to the above-mentioned definition Zeithaml (1988) provides.

Sirdeshmukh *et al.* (2002) find that value emerges as the consistent, significant, and dominant determinant of consumer loyalty. The results also establish that value partially mediates the effect of trust on loyalty judgements.

Taken together, these results found by Sirdeshmukh and his colleagues suggest caution against conventional beliefs that consumer trust converts directly into loyalty. They suggest that a careful assessment that provides a full accounting of trust-conversion mechanisms is needed.

2.6.4.4. Commitment and Trust

In their well-known article "The Commitment-Trust Theory of Relationship Marketing", Morgan and Hunt (1994, p. 22) hypothesise that the constructs of trust and commitment are "central to successful relationship marketing". They say that "commitment and trust are "key" because they encourage marketers to (1) work at preserving relationship investments by co-operating with exchange partners, (2) resist attractive short-term alternatives in favour of the expected long-term benefits of staying with existing partners, and (3) view potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically" (Morgan and Hunt, 1994, p. 22).

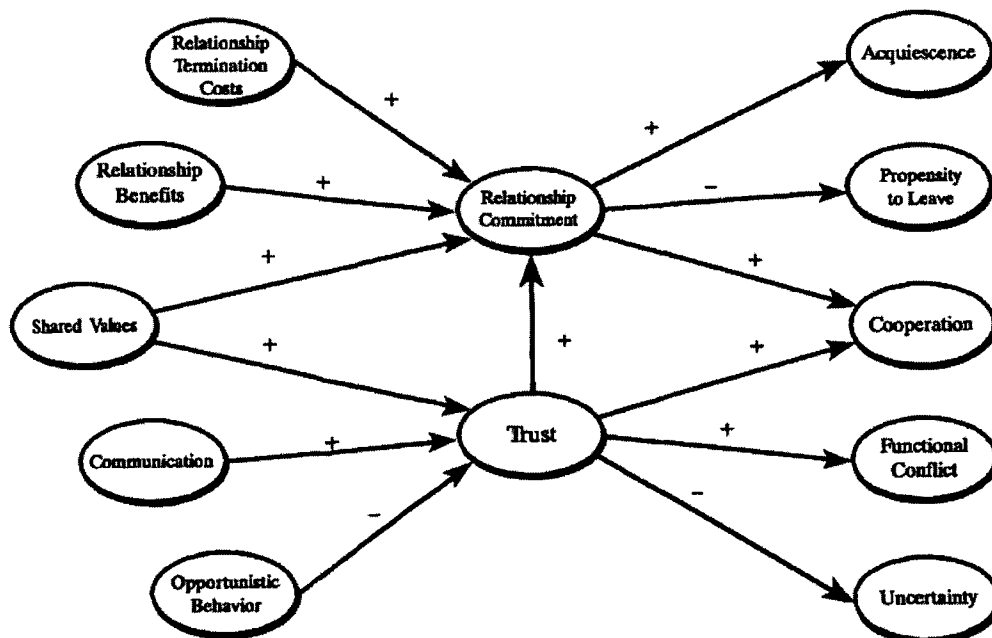


Figure 11 – Commitment and Trust (Morgan and Hunt, 1994, p. 22)

Morgan and Hunt (1994) posit that trust is a major determinant of relationship commitment, based on the belief that as commitment entails vulnerability, parties will seek only trustworthy partners. The results from their data collection support this proposed relationship, suggesting that trust does indeed affect commitment positively. This positive effect has also been found by Moorman *et al.* (1992).

Another study that examined the relationship between the concepts of trust and commitment is a study by De Ruyter and Wetzels (1999). Based on the arguments that have been discussed in section 2.6.2, they distinguish between calculative and affective commitment, and examine the affect that trust has on both these types of commitment. Looking at the way that Morgan and Hunt (1994) measure their conceptualisation of commitment, one could argue that they focus on affective commitment and “ignore” the calculative aspect.

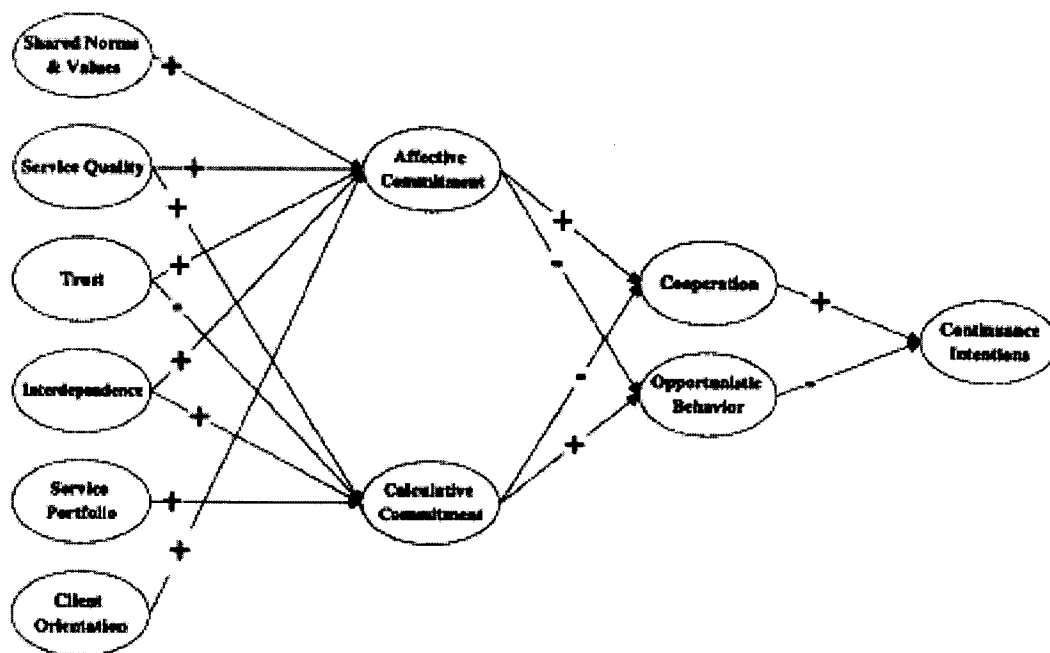


Figure 12 –Two types of commitment (De Ruyter and Wetzels, 1999, p. 63)

What De Ruyter and Wetzels (1999) find, is that trust affects both types of commitment. However, the effect of trust on affective commitment is positive, whereas the effect of trust on calculative commitment was found to be negative.

2.7. Conclusions

Customer Relationship Management may be considered a specific field within Relationship Marketing, which focuses on the relationship between organisations and their final customers. It can be defined as a business strategy that aims at long-term improvements in customer acquisition, retention, loyalty and profitability. Of interest for this study, is the context in which these relationships between organisations and customers exist. Particularly, this study focuses on the WWW, as this IT is becoming more and more important as an interaction channel for organisations and customers. Business-to-consumer relationships that evolve over the WWW may have different characteristics as compared to traditional relationships that develop in-store. This is due

to the different context characteristics, such as the interaction interface (computer-mediated vs. face-to-face).

It has been argued in this chapter that customer loyalty should be the main goal of CRM efforts, and this concept will therefore be the focal point in this study. More specifically, this study examines customer loyalty in relationships between organisations and their customers in a WWW environment. To do this, two perspectives will be applied.

First of all, from a technology adoption point-of-view, the TAM will be used. This model has been proven to be a valid tool that could be applied in a WWW environment. Especially with the extension suggested by Moon and Kim (2001), who include perceived playfulness as a determinant of a person's attitude towards using the Internet and his behavioural intention to use it, the TAM can be used to explain consumers' acceptance and behaviour with regard to the WWW.

But, customers do not only interact with a Web site; they interact with the organisation behind this Web site as well. Therefore, in addition to the TAM perspective, a CRM approach will be applied. Gefen *et al.* (2003) have introduced a concept from this field (i.e. trust) into the TAM, recognising the dual characteristic of relationships between online vendors and their customers. This model will form the basis for the research model that will be used in this study.

Besides trust, three additional concepts from the field of CRM have been identified in this chapter as being relevant to explain customer loyalty in a WWW environment. These concepts are customer satisfaction, commitment, and surprise. In the next chapter, these concepts will be used to conceptualise the CRM perspective, and eventually they will be added to the TAM.

Chapter 3. Research Model and Methodology

This chapter describes the research objectives and research questions for this study, and the methodology that will be applied in order to answer these questions. In the first section, the research objectives and research questions will be described. A research model will then be developed in section 3.2., followed by the hypotheses that this study will test. Section 3.3. covers the research methodology.

3.1. Research Objectives and Research Questions

As was mentioned earlier in this report, the objectives for this study follow from the recognition of the dual character of the interaction between organisations and their customers over the WWW. This dual character consists of the “traditional” relationship between the organisation and the customer, and the context in which this relationship evolves, namely one that is facilitated by information technology (the WWW). The latter characteristic makes these types of relationships different from relationships that develop in-store.

In our consideration of relationships between online vendors and their customers, the focus will be on customer loyalty. The previous chapter has argued the importance of customer loyalty to an organisation, especially in an online environment. And as Srinivasan *et al.* (2002, p. 41) say, “e-retailers need to develop a thorough understanding of the antecedents of e-loyalty [since] such an understanding can help e-retailers gain a competitive advantage by devising strategies to increase e-loyalty”.

Accordingly, the objective of this study may be described as follows:

- *Examine how e-loyalty can be explained from a TAM and CRM perspective, and thereby extend current insights on e-loyalty and its determinants*

In order to achieve this objective, this study will try to find answer the following research question:

- *What, if any, are the determinants of e-loyalty, and how do these determinants interact?*

How this study tries to answer this question will be discussed in the next sections.

3.2. Research Model and Hypotheses

In order to achieve the main objective and thus explain e-loyalty from a TAM and CRM perspective, a research model has been developed. This model, which combines insights from both perspectives, will be used to examine the relationships between customer loyalty and its determinants. We thereby try to find an answer to our research question. The proposed relationships will be described in hypotheses, which in turn will be tested using data that will be collected through an online survey (more will be said about data collection in section 3.3). Results will be discussed in the next chapter.

In accordance with the research objectives stated above, the research model will be built up by combining two perspectives, namely TAM and CRM. This section will describe step-by-step how the model is built up, and what the hypotheses that correspond with the proposed relationships in the model are.

3.2.1. TAM perspective

The model that Gefen *et al.* (2003) developed (see figure 6 in the previous chapter) will be used as a basis for the current study, and will be extended with a number of concepts from both the TAM and the CRM field. The Gefen *et al.* (2003) model, in itself an extension of the original TAM model (Davis, 1989), may be considered a model that provides an explanation of people's intention to use the WWW for purposes of buying low-risk products. However, instead of trying to explain people's intention to use the WWW for buying purposes, this study tries to explain people's loyalty towards a particular vendor when using the WWW for these buying purposes. In figure 13, this adjustment is shown: instead of "Intended Use", the different constructs in the model are hypothesized to affect customer loyalty ("Loyalty").

Adopting the extension to the original TAM that was proposed by Moon and Kim (2001) leads to the addition of perceived playfulness (PP) to the model. The reason for including PP in this model, and not for instance perceived enjoyment (as suggested by Teo *et al.*, 1999), is that the concept of perceived playfulness encompasses the concept of perceived enjoyment, and more (see section 2.3.3).

These two adjustments to the Gefen *et al.* (2003) model result in the first part of the research model, reflecting the TAM perspective (adjustments have been given a different colour for purposes of clarity).

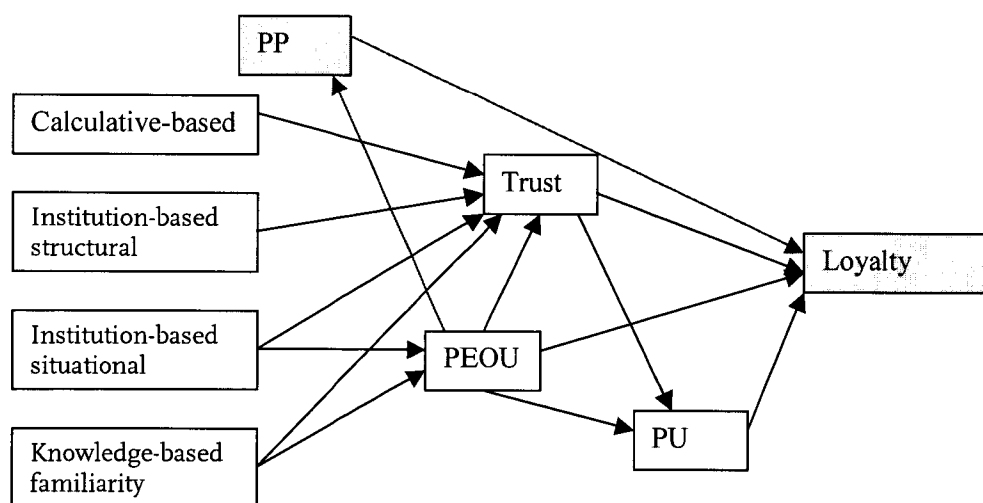


Figure 13 – TAM perspective

The hypotheses that relate to this part of the model will be outlined in section 3.2.3, along with the rest of the hypotheses.

3.2.2. CRM perspective

The CRM perspective that is applied here consists of a number of concepts that have been discussed in the previous chapter. These concepts are believed to characterise the relationship between an organisation and its customers. A visualization of the CRM perspective may be found in figure 14. The underlying motivation for the relationships in this part of the model will be provided in the next section, where the total research model and hypotheses will be discussed.

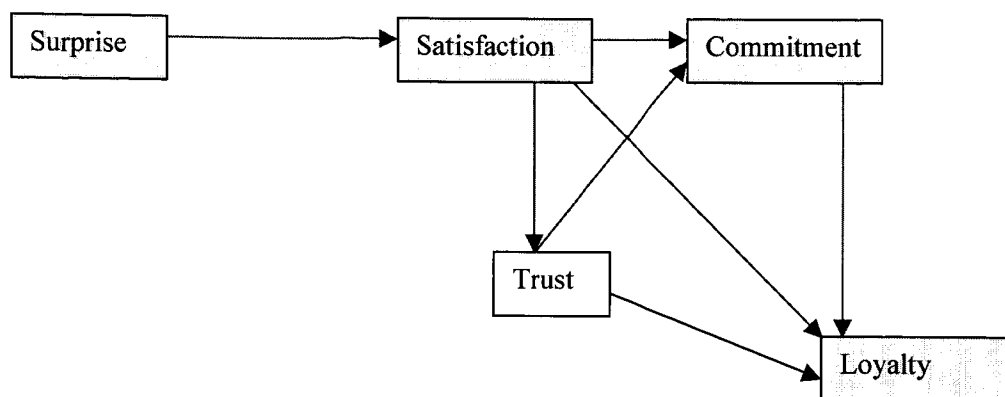


Figure 14 – CRM perspective

It should be noted that, in accordance to what is said in section 2.6.2, the term commitment in this model actually stands for the affective type of commitment. The fact that this study conceptualises commitment as an affective component should be considered when reading the remainder of this chapter.

3.2.3. TAM and CRM: Research Model and Hypotheses

The main objective of this study is to examine how e-loyalty can be explained from a TAM and CRM perspective. Therefore, the research model for this study combines the two parts that have been discussed above into one overall research model. This model is shown in Figure 15.

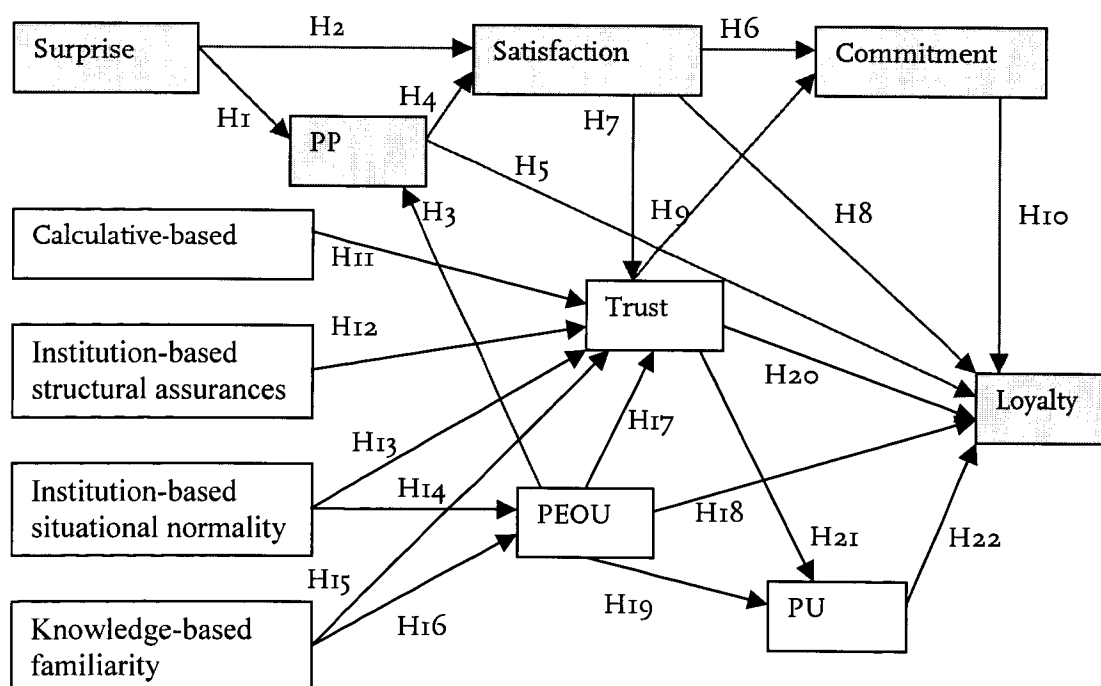


Figure 15 – Research Model CRM and Technology Acceptance

The hypotheses regarding the relationships in this model will be discussed below. The numbers match the numbers in Figure 15.

- ❖ Hypothesis 1 (H1): *An increasing level of surprise experienced when using a Web site has a positive effect on the perceived playfulness of this Web site*

The suggestion of a positive effect of surprise on perceived playfulness is based on the following. Lindgreen and Vanhamme (2003, p. 226) say that surprise may be “succeeded by another emotion that colours it positively (e.g. surprise + joy)”. The suggestion that surprise leads to feelings of joy has also been made by other researchers (e.g. Vanhamme and Snelders, 2001). In section 2.2.3, it was said that perceived playfulness may result from the extent to which a person finds the interaction with a Web site intrinsically enjoyable or interesting (Moon and Kim, 2001). Based on the suggestion that surprise may lead to emotions of joy, and that perceived playfulness may result from “enjoyable” interaction, it is hypothesised that surprise may positively affect perceived playfulness.

- ❖ Hypothesis 2 (H2): *An increasing level of surprise experienced when using a Web site has a positive effect on the level of customer satisfaction*

This relationship has been suggested in several studies (Lindgreen and Vanhamme, 2002; Rust and Oliver, 2000; Vanhamme and Snelders, 2001). However, Vanhamme and Snelders (2001) conclude that no empirical results have convincingly validated the proposition that surprise enhances satisfaction, and that further research should first show that a relationship exists between the two concepts. This study attempts to measure this possible positive link between surprise and satisfaction by testing hypothesis 2.

- ❖ Hypothesis 3 (H3): *Perceived ease of use (PEOU) is positively related to perceived playfulness (PP)*

Moon and Kim (2001, p. 220) propose that “ITs that are difficult to use are less likely to be considered enjoyable”, and hypothesize that there is a positive relationship between perceived ease of use and perceived playfulness of using the WWW. They then find support for their hypothesis. Therefore, it is proposed here that PEOU is positively related to PP.

- ❖ Hypothesis 4 (H4): *The level of perceived playfulness (PP) is positively related to the level of customer satisfaction*

According to Moon and Kim (2001, p. 220), “prior research has found that attitudinal outcomes, such as [...] satisfaction, results from the playful experience”. Based on this suggestion, the positive relationship between the level of PP and customer satisfaction is hypothesized here.

- ❖ Hypothesis 5 (H5): *An increasing level of perceived playfulness (PP) has a positive effect on the level of customer loyalty*

Moon and Kim (2001) find support for their hypothesis that there is a positive relationship between perceived playfulness and behavioural intention to use the World-Wide-Web. They further say that “[i]ndividuals using the WWW and experiencing playfulness are more absorbed and interested in their interaction”, and “are more likely to engage in the activity for its own sake” (Moon and Kim, 2001, p. 221). It is proposed here that when individuals experience playfulness when using an electronic vendor’s Web site, they will return to this particular Web site the next time they feel the need to perform the same task (i.e. buying products online).

- ❖ Hypothesis 6 (H6): *Customer satisfaction is positively related to commitment*

In their study, which has been discussed in section 2.6.4.2, Bauer *et al.* (2002) find that satisfaction has a positive effect on commitment. According to them, this means that “it is primarily satisfied customers who feel strongly committed to an enterprise” (Bauer *et al.*, 2002, p. 159). Based on these findings the hypothesis here is that satisfaction is positively related to commitment.

- ❖ Hypothesis 7 (H7): *Customer satisfaction is positively related to trust*

Just like hypothesis 6, this hypothesis is based on findings by Bauer, Grether, and Leach (2002), who find that satisfaction has a positive effect on trust.

- ❖ Hypothesis 8 (H8): *Customer satisfaction has a positive effect on customer loyalty*

Based on the findings that Anderson and Srinivasan (2003) report, namely that satisfaction has a positive impact on e-loyalty, hypothesize 8 says that satisfaction has a positive effect on customer loyalty.

- ❖ Hypothesis 9 (H9): *Trust is positively related to commitment*

The positive relationship between trust and commitment has been found in several studies. Morgan and Hunt (1994) find that trust positively affects commitment, as do Moorman *et al.* (1992) and Bauer *et al.* (2002). De Ruyter and Wetzels (1999) also find that trust influences affective commitment positively. Based on these results found in prior research, we hypothesize that trust is positively related to commitment.

- ❖ Hypothesis 10 (H10): *The level of commitment is positively related to the level of customer loyalty*

According to Bettencourt (1997, p. 388), “commitment is an attitude toward a firm that should produce a variety of beneficial behaviours, including but not limited to loyalty behaviours”. In his research, Bettencourt (1997) finds supports for his hypothesis that customer commitment is significantly, positively related to customer loyalty. In line with this Pritchard *et al.* (1999), conceptualising commitment as resistance to change, find a positive link between commitment and loyalty. We therefore hypothesize that the level of commitment is positively related to the level of customer loyalty.

As the basis for this research model is the model that Gefen *et al.* (2003) developed, the remaining hypotheses (H11-20) match the hypotheses that Gefen *et al.* (2003) use in their study. Adjustments are made for the hypotheses concerning the effects of the concepts on customer loyalty (which replaces “Intended Use” in the original Gefen *et al.* (2003) model).

- ❖ Hypothesis 11 (H11): *Calculative-based beliefs will positively affect trust in an electronic vendor*
- ❖ Hypothesis 12 (H12): *Perceptions of structural assurances built into a Web site will positively affect trust in an electronic vendor*
- ❖ Hypothesis 13 (H13): *Perceptions of situational normality will positively affect trust in an electronic vendor*
- ❖ Hypothesis 14 (H14): *Situational normality will positively affect PEOU*
- ❖ Hypothesis 15 (H15): *Familiarity with a trustworthy electronic vendor will positively affect trust in that electronic vendor*
- ❖ Hypothesis 16 (H16): *Familiarity with the electronic vendor will positively affect PEOU*

- ❖ Hypothesis 17 (H17): *PEOU will positively affect trust in an electronic vendor*
- ❖ Hypothesis 18 (H18): *PEOU will positively affect customer loyalty towards an electronic vendor*
- ❖ Hypothesis 19 (H19): *PEOU will positively affect PU of an electronic vendor's Web site*
- ❖ Hypothesis 20 (H20): *Trust in an electronic vendor will positively affect customer loyalty towards that particular vendor*
- ❖ Hypothesis 21 (H21): *Trust will positively affect PU*
- ❖ Hypothesis 22 (H22): *PU will positively affect customer loyalty towards an electronic vendor*

The positive relationship between trust and customer loyalty that is suggested in hypothesis 20, has been proposed and tested in numerous studies (Anderson and Srinivasan, 2003; Chan, 2003; Lindgreen, 2003; Reichheld and Scheffer, 2000; Sirdeshmukh *et al.*, 2002; Zikmund *et al.*, 2003), as was already mentioned in section 2.5.4.

3.3. Research Methodology

This section will discuss the methodology that will be used to collect and analyse the data that is needed to test the above-mentioned hypotheses, and thereby validate the relationships in the research model.

3.3.1. Strategy decision

The research strategy is a general plan of how the researcher will go about answering the research questions set.

As was described above, the study by Gefen *et al.* (2003) may be considered the basis of the current study. Therefore, a survey strategy will be applied here, just like Gefen *et al.* (2003) used this strategy in their study.

The reasons why this strategy is particularly suited for this study are the following. First of all, a survey strategy allows for the collection of large amounts of data in a highly economical way. This study aims at finding an explanation of customer loyalty on the WWW, and is therefore concerned with a general, descriptive objective. For instance, it does not look into one particular vendor on the WWW, but into the entire array of online vendors. Also, as can be seen in the research model (Figure 15), this study requires obtaining data on a high number of concepts. In order to find reliable, meaningful answers to the research question set, this study requires the collection of large amounts of data.

A second argument for applying a survey approach is that this approach is especially applicable for answering "what" and "how" questions (Saunders *et al.*, 2000, p. 94). The main question that this study tries to answer is both "what" and "how" (see section 3.1, question 2), and therefore using a strategy approach seems to be right.

3.3.2. Data collection method

Data is collected using an online questionnaire. The reason for using an online questionnaire is that this is a method that has the ability to reach a high number of respondents that are spread geographically. An additional advantage is that the responses are digital, and therefore need less preparation for data analysis using a software program. As this study looks into consumer behaviour and attitude in an online

environment, it seems justifiable to collect data using an online tool. This will generate response from people that are actually active in this environment, ensuring that the right sample is being reached.

There are also a number of drawbacks from using this method. First, the response rates "are likely to be very low" (Saunders *et al.*, 2002, p. 310). Secondly, designing the questionnaire (formulating the questions, putting them together, advertising the web site, etcetera) may be very time consuming. Additionally, collecting responses may also take much time, since the moment of response is not controllable by the researcher (as it would be in case of interviews, for instance). However, considering the research objectives and the research questions, using an online questionnaire seems appropriate here.

3.3.3. Questionnaire Design

The questionnaire that was designed for this study contains questions corresponding to the concepts in the research model. The questions and scales were obtained from prior research on these concepts to ensure validity and reliability of the instruments used.

The questions and scales used to measure PU, PEOU, trust and the four trust antecedents (calculative-based, structural assurances, situational normality, and familiarity) were obtained from the study by Gefen *et al.* (2003). Their questions for PU and PEOU were adapted from standard TAM scales from Davis (1989). The trust items were composed based on previous empirical research on buyer-seller relationships (Crosby *et al.*, 1990; Donney and Cannon, 1997; Ganesan, 1994; Gefen, 2002; Jarvenpaa *et al.*, 2000; McKnight *et al.*, 2002; Schurr and Ozanne, 1985)

The items for surprise were obtained from Vanhamme (2002), which amongst other things gives an extensive review of literature on this subject. The questionnaire contains the original PP scales adapted from Moon and Kim (2001). For the concept of customer satisfaction we used the questions and scales that were used by Anderson and Srinivasan (2003), who adapted the scale developed by Oliver (1980). The commitment items used are based on Kumar *et al.* (1995). The items for customer loyalty were obtained from Srinivasan *et al.* (2002), who adapted items from Gremler (1995) and Zeithaml *et al.* (1996).

In addition to the questions aimed at measuring the concepts from the research model, questions concerning demographics and WWW use were included. An overview of the questions and scales may be found in appendix B.

The questionnaire asked respondents to assess the last online book, CD or video vendor from whom they had made a purchase (this is, again, in line with the approach of Gefen *et al.*, 2003). The reason for focussing on books, CD's and video's is that those are the "most sought after products in e-commerce" (Gefen *et al.*, 2003, p. 67) and that those products are low-risk. Low-risk products (low price, little uncertainty as to what the buyer will actually receive) "require less trust in the vendor than other products" (Gefen *et al.*, 2003, p. 67), and therefore focussing on these products gives this study a conservative character.

3.3.4. Sample

The sample that was selected for this study consists of students from a number of universities in the Netherlands and the USA. Using students in this study is in line with

the sample that Gefen *et al.* (2003) selected. By focusing on students only, the homogeneity of the group of respondents can be increased as compared to a random sample of the entire population of Internet users. This enhances the internal validity of the results. An additional reason to use students in this study is that, according to section 2.2.1, students belong to an age group that is very active on the Internet.

By means of an email containing a link, the students were asked to participate in this research by filling out the online survey. The students that we approached are students from the Eindhoven University of Technology, the University of Maastricht (both in the Netherlands), and the University of Michigan (USA). A total of 315 questionnaires were collected, of which 246 were used in further analyses. 195 of the questionnaires used in the final sample were filled out by students in the Netherlands, the other 51 were filled out by students in the USA. Our total sample consists of 177 (72 %) males, and 69 (28 %) females. 208 respondents (85 %) are between 20 and 29 years of age, 36 are younger than 20. Age composition was comparable for respondents in the Netherlands and in the USA.

Table 4 – Demographic Variables for Sample

Variable	Category	Frequency	Percentage
Gender	Male	177	72.0
	Female	69	28.0
Age	<20	36	14.6
	20-29	208	84.6
	30-39	2	0.8
	40-59	0	0.0
	>60	0	0.0
University	Eindhoven University of Technology	126	51.2
	University of Maastricht	62	25.2
	University of Michigan	49	19.9
	Other ^a	9	3.7
Frequency of WWW use	Never/Almost never	1	0.4
	Less than once a month	0	0
	A few times a month	0	0
	A few times a week	15	6.1
	About once a day	47	19.1
	Several times a day	183	74.4
Location of WWW use ^b	Home	206	83.7
	Office	29	11.8
	University	160	65
Average time spent when online	Never/almost never	0	0
	Less than ½ hour	22	8.9
	From ½ hour to 1 hour	99	40.2
	1-2 hour	66	26.8
	2-3 hour	33	13.4
	More than 3 hours	26	10.6
Times purchased CD, book, or video	Never	124	50.4
	Once	18	7.3
	Twice	20	8.1
	3-5 times	36	14.6

	5-10 times	29	11.8
	More than 10 times	19	7.7
Main reason not to purchase online	<i>I do not trust the Internet enough to provide my personal data to it</i>	17	6.9
	<i>I prefer traditional shopping at a store</i>	43	17.5
	<i>I do not feel the need to</i>	49	19.9
	<i>Other^a</i>	15	6.1

^a See Appendix C for specifications

^b Adds up to more than 246 due to multiple answer possibility

3.3.5. Data analysis

We used the Partial Least Squares (PLS) approach to estimate both the measurement and structural parameters in our structural equation model (Barclay, Higgins, & Thompson, 1995; Chin, 1998; Fornell, & Bookstein, 1982; Lohmöller, 1989, Wold, 1985). As opposed to the covariance-based or factor based approach to structural equation modelling implemented for instance in LISREL, PLS is component-based. As a consequence, PLS does not require multivariate normal data, places minimum requirements on measurement levels and is more suitable for small samples (Chin, 1998; Wold, 1985). PLS uses an iterative estimation algorithm, which consists of a series of simple or multiple ordinary least squares regression analyses (Chin, 1998). Therefore, the path coefficients in the structural models can be interpreted as standardized regression coefficients and the loadings of the measures on their respective constructs as factor loadings. PLS is considered more appropriate for models containing complex relationships (i.e., a large number of indicators, constructs and relationships).

The sample size of 246 is considered adequate for this method of analysis.

Chapter 4. Findings

Having provided a background for this research, an overview of the current insights in the field of interest for this study, and a description of the research model and methodology in chapters 2 and 3, this chapter now describes the results that have been found. The first section deals with discussing validity of the construct used in the online questionnaire, whereas the second section describes the outcomes in terms of the hypotheses that were drawn up in the previous chapter. These outcomes will be the basis of the discussion in chapter 5.

4.1 Construct validity

In our study we specified reflective indicators for all the constructs. We tested the measurement model with no relationships specified among the constructs using PLS analysis as implemented in PLS-Graph Version 3.0 (Chin, 2001).

We examined the reliability, convergent validity, and discriminant validity for the measurement instruments used in our study. Reliability was assessed using composite scale reliability (Chin, 1998; Fornell, & Larcker, 1981; Werts, Linn, and Jöreskog, 1974) and average variance extracted (Chin, 1998; Fornell, and Larcker, 1981). We calculated composite scale reliability and average variance extracted for the constructs employed in our study. The results of our analysis may be found in Table 5. Composite scale reliability ranged between 0.79 and 0.97 exceeding the cut-off value of 0.7 suggested by Nunnally and Bernstein (1994). Average variance extracted ranged between 0.48 and 0.84. Except for structural assurances (AT) all other constructs exceeded the 0.5 cut-off value proposed by Fornell and Larcker (1981).

Table 5 – Results from PLS Measurement Model

Construct ^a	Item	Standardized Loadings	Composite Scale Reliability	Average Variance Extracted
PEOU	1	0.93	0.97	0.83
	2	0.93		
	3	0.92		
	4	0.82		
	5	0.92		
	6	0.94		
PU	1	0.85	0.96	0.78
	2	0.85		
	3	0.90		
	4	0.91		
	5	0.92		
	6	0.86		
PP	1	0.65	0.91	0.55
	2	0.52		
	3	0.58		
	4	0.86		
	5	0.86		
	6	0.88		
	7	0.78		
	8	0.78		
	9	0.66		

SU	1	0.86	0.93	0.81
	2	0.92		
	3	0.92		
TR	1	0.83	0.91	0.61
	2	0.77		
	3	0.63		
	4	0.85		
	5	0.83		
	6	0.91		
	7	0.58		
CBT	1	0.87	0.92	0.78
	2	0.91		
	3	0.87		
FT	1	0.49	0.79	0.57
	2	0.89		
	3	0.83		
AT	1	0.49	0.79	0.48
	2	0.85		
	3	0.76		
	4	0.61		
NT	1	0.86	0.94	0.84
	2	0.93		
	3	0.94		
SAT	1	0.81	0.90	0.60
	2	0.67		
	3	0.82		
	4	0.76		
	5	0.84		
	6	0.74		
AC	1	0.85	0.89	0.67
	2	0.89		
	3	0.62		
	4	0.89		
LOY	1	0.50	0.91	0.58
	2	0.73		
	3	0.79		
	4	0.83		
	5	0.79		
	6	0.82		
	7	0.83		

a CBT= Calculative-based trust, FT= Knowledge-based familiarity, AT= Institution-based structural assurances, NT= Institution-based situational normality, TR= Trust, PEOU= Perceived ease of use, PU= Perceived usefulness, PP= Perceived playfulness, SU= Surprise, SAT= Satisfaction, AC= Affective commitment, LOY= Customer loyalty

Convergent validity can be evaluated by inspecting the factor loadings of the measures on their respective constructs. As can be observed in Table 5 the standardized factor loadings for all measures exceeded 0.5, except for AT1 and FT1 (both 0.49). Discriminant validity

can be assessed by examining the cross-factor loadings of the measures (Barclay, Higgins, and Thompson, 1995; Chin, 1998; Howell and Avolio, 1993). The measures should not load higher on another construct than it is intended to measure. Additionally, a construct should share more variance with measures than it shares with other constructs in the model (Barclay, Higgins, and Thompson, 1995; Chin, 1998, Howell and Avolio, 1993). Consequently, the square root of the average variance extracted should exceed the intercorrelations of the construct with the other constructs in the model. Inspection of Table 6 reveals that for all the constructs, the square root of the average variance extracted exceeds the intercorrelations of the construct with the other constructs in the model. This ensures convergent validity.

Table 6 – Means, Standard Deviations, and latent Variable (Construct Intercorrelations)

Construct a,b,c	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
			PEOU	PU	PP	SU	TR	CBT	FT	AT	NT	SAT	AC	LOY
PEOU	5.06	1.39	0.91											
PU	5.07	1.40	0.73	0.88										
3 PP	3.74	1.08	0.27	0.27	0.74									
4 SU	2.22	0.95	0.12	0.16	0.42	0.90								
5 TR	4.99	1.09	0.14	0.20	0.30	0.06	0.78							
6 CBT	4.49	1.53	-0.10	0.04	0.07	-0.01	0.36	0.88						
7 FT	4.89	1.12	0.10	0.22	0.21	-0.01	0.51	0.20	0.75					
8 AT	3.91	1.11	0.33	0.33	0.22	0.29	0.39	0.03	0.25	0.69				
9 NT	5.13	1.20	0.05	0.18	0.04	-0.07	0.32	0.14	0.54	0.21	0.92			
10 SAT	5.71	0.91	0.01	0.25	0.10	0.06	0.52	0.28	0.54	0.20	0.45	0.77		
11 AC	4.23	1.23	0.17	0.33	0.40	0.27	0.57	0.20	0.41	0.42	0.28	0.53	0.82	
12 LOY	4.13	1.25	0.17	0.36	0.30	0.21	0.54	0.26	0.36	0.35	0.20	0.44	0.70	0.76

a CBT= Calculative-based trust, FT= Familiarity-based trust, AT= Structural assurances-based trust, NT= Situational normality-based trust, TR= Trust, PEOU= Perceived ease of use, PU= Perceived usefulness, PP= Perceived playfulness, SU= Surprise, SAT= Satisfaction, AC= Affective commitment, LOY= Customer loyalty

b Square root of average variance extracted on diagonal

c Sample size 122 (listwise deletion)

4.2 Hypotheses testing

We estimated the parameters in the structural model using PLS analysis as implemented in PLS-Graph Version 3.0 to test the substantive relationships as laid down in the conceptual model. To test the effects and the statistical significance of the parameters in the structural model we used a bootstrapping procedure with 250 resamples (Chin, 1998, 2001; Efron, and Tibshirani, 1993). The results may be found in Table 7.

Table 7 – Testing of Hypotheses

Hypothesis	Constructs ^a	Direction	β	Testing
H ₁	SU-PP	Positive	0.40 **	Failed to reject
H ₂	SU-SAT	Positive	0.03 n.s.	Rejected
H ₃	PEOU-PP	Positive	0.22 **	Failed to reject
H ₄	PP-SAT	Positive	0.14 n.s.	Rejected
H ₅	PP-LOY	Positive	-0.00 n.s.	Rejected
H ₆	SAT-COM	Positive	0.38 **	Failed to reject
H ₇	SAT-TR	Positive	0.29 **	Failed to reject
H ₈	SAT-LOY	Positive	0.02 n.s.	Rejected
H ₉	TR-COM	Positive	0.37 **	Failed to reject
H ₁₀	COM-LOY	Positive	0.54 **	Failed to reject
H ₁₁	CBT-TR	Positive	0.22 **	Failed to reject
H ₁₂	AT-TR	Positive	0.31 **	Failed to reject
H ₁₃	NT-TR	Positive	-0.06 n.s.	Rejected
H ₁₄	NT-PEOU	Positive	-0.00 n.s.	Rejected
H ₁₅	FT-TR	Positive	0.25 **	Failed to reject
H ₁₆	FT-PEOU	Positive	0.12 n.s.	Rejected
H ₁₇	PEOU-TR	Positive	0.03 n.s.	Rejected
H ₁₈	PEOU-LOY	Positive	-0.11 n.s.	Rejected
H ₁₉	PEOU-PU	Positive	0.72 **	Failed to reject
H ₂₀	TR-LOY	Positive	0.19 *	Failed to reject
H ₂₁	TR-PU	Positive	0.10 *	Failed to reject
H ₂₂	PU-LOY	Positive	0.22 *	Failed to reject

a CBT= Calculative-based trust, FT= Familiarity-based trust, AT= Structural assurances-based trust, NT= Situational normality-based trust, TR= Trust, PEOU= Perceived ease of use, PU= Perceived usefulness, PP= Perceived playfulness, SU= Surprise, SAT= Satisfaction, AC= Affective commitment, LOY= Customer loyalty

* significant at $p < 0.05$

** significant at $p < 0.01$

n.s. not significant at 0.05 level

Our results show that the effect of surprise in this study is limited. Although the positive relationship between surprise and perceived playfulness is found to be significant ($\beta = 0.40$), no support is found for the effect of surprise on satisfaction. Furthermore, no significant effect of the concept of perceived playfulness on other concepts (satisfaction, customer loyalty) was found in this study.

Regarding the effect of satisfaction, our results reveal a positive effect on both trust ($\beta = 0.29$) and commitment ($\beta = 0.38$), but no significant direct effect on customer loyalty was found. As for the other concepts that were hypothesised to affect trust, the following is found. Only three of the antecedents suggested, namely calculative-based ($\beta = 0.22$), institution-based structural assurances ($\beta = 0.31$), and knowledge-based familiarity ($\beta = 0.25$), actually have a significant affect on trust, whereas the effect of institution-based situational normality could not be validated. The latter antecedent has no significant relationship to any of the other concepts, as its effect on PEOU is also not significant.

PEOU is also not significantly affected by knowledge-based familiarity. Furthermore, the proposed effects of PEOU itself on trust and loyalty are also found to be not significant. PEOU does in fact influence perceived playfulness ($\beta = 0.22$).

Trust itself is found to positively affect commitment ($\beta = 0.37$), perceived usefulness ($\beta = 0.10$), and customer loyalty ($\beta = 0.19$). Perceived usefulness is further affected by

PEOU ($\beta = 0.72$), and in addition to the effect of trust, customer loyalty is also positively affected by commitment ($\beta = 0.54$) and perceived usefulness ($\beta = 0.22$).

Figure 16 provides a visualisation of the results. The arrows in Figure 15 that correspond to hypotheses that got rejected have been left out here to reduce complexity. What remains are the hypotheses that could not be rejected.

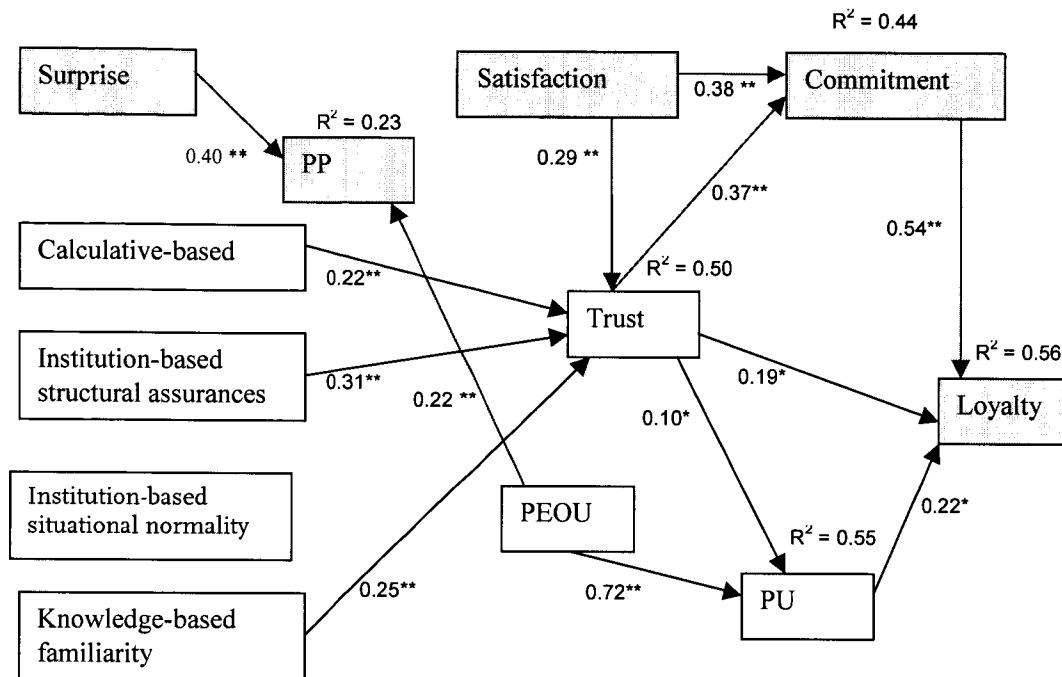


Figure 16 – Conceptual Model with Parameter Values^{a,b,c}

a R² = variance explained by variables in the model ($0 < R^2 < 1$)

b * = significant at $P < 0.05$

c ** = significant at $P < 0.01$

Chapter 5. Discussion and Conclusion

This study tested a conceptual model containing a number of determinants of customer loyalty. For data collection, this study used an online questionnaire completed by 246 students in Europe and the US. Of the 22 hypotheses that were tested in this study, 13 were confirmed statistically, while the other 9 could not be supported. This chapter discusses the accepted and rejected hypotheses, the theoretical and practical implications, and the limitations of this study.

5.1. Discussion of the findings

The data analysis in the previous chapter showed that no statistically significant relationship between surprise and satisfaction was found. As mentioned in section 3.2.3, Vanhamme and Snelders (2001, p. 41) state that “no empirical results have convincingly validated th[e] proposition [that surprise enhances satisfaction]”. They suggest that “further research should first show that a relationship exists between surprise and satisfaction” (Vanhamme and Snelders, 2001, p. 41). We have not been able to find additional support for the suggested relationship. However, this does not imply per definition that the relationship does not exist. The studies that the hypothesis of this relationship is based on, have been conducted in an offline setting, whereas the current research tested the hypotheses with regard to an online environment. It is not clear as to what extent the findings in this study can be compared to findings in an offline situation. As the only concept that is affected by surprise in this study (i.e. perceived playfulness) has no significant influence on any of the other concepts (i.e. satisfaction and customer loyalty), surprise does not play a role in explaining loyalty in our model.

Another relationship that this study found no statistical support for, is the relationship between perceived playfulness and customer loyalty. This is not in line with our expectations based on the results that Moon and Kim (2001) found in their study. An explanation for these different findings may come from the following observation. Moon and Kim (2001) examine the effects of perceived playfulness on behavioural intention to use the WWW, whereas this study focuses on the repeated use of one particular Web site (i.e. customer loyalty). This is an important distinction that should be made. It may be possible that perceived playfulness does indeed affect the user's attitude and behaviour regarding the WWW, but at the same time does not affect his choice as to which specific Web site he wants to use for certain purposes. In other words, perceived playfulness may not distinguish one e-vendor's Web site from competitive Web sites since it only affects the consumers' preference to use the WWW in general. The same argument may be used to explain the difference in findings regarding the PEOU-customer loyalty relationship in this study as compared to the Gefen *et al.* (2003) study. However, as for this latter relationship, one should also note that prior TAM research has also found that the effect of PEOU on attitude and behaviour towards using an IT is fully mediated by perceived usefulness. That could be the case here as well.

Rejection of the hypothesised positive effect of satisfaction on loyalty may come as a surprise, since the relationship sounds plausible. However, prior research has already questioned the straightforwardness of this relationship. For instance, Reichheld *et al.* (2000a) say that “in business after business, 60-80 % of customers who defect to a competitor said they were satisfied or very satisfied [...] just prior to their defection”. This suggests that satisfaction does not automatically lead to loyal behaviour towards the other party. Stauss and Neuhaus (1997) propose the same. They say that the satisfaction-loyalty link may be too simplified, which is also argued by Storbacka, Strandvik and Grönroos (1994). The latter researchers argue that several aspects may influence this relationship,

such as switching costs, and commitment. The research by Anderson and Srinivasan (2003) that has been discussed in section 2.6.4.1 suggests that the effect of satisfaction on customer loyalty is significantly moderated by factors such as trust. In the research model used in this study, the affect of satisfaction on loyalty may be fully mediated by trust and commitment, explaining why there is no statistically significant direct relationship between the two concepts.

The fact that the relationships between institution-based structural normality and trust, and between institution-based structural normality and PEOU are both rejected is also not in line with the findings by Gefen *et al.* (2003). The reason for the lack of influence of situational normality may be caused by the possibility of an insufficient degree of experience among the respondents. In order to be able to judge situational normality in this study, one needs to have experience with other vendors. Otherwise it will be impossible to know what is "normal", and what is not. This study only selected respondents that had prior experience with buying online, but has not examined whether respondents had prior experience with multiple e-vendors. The explanation of lack of experience may also have caused the rejection of the knowledge-based familiarity → PEOU link.

When considering the fact that some relationships that Gefen *et al.* (2003) found were not significant in this study, one should also keep in mind that different analysis techniques were used (LISREL and PLS respectively). This may have caused some differences in the results found. The same goes for the potential cross-national or cross-cultural differences that may play a role here. The respondents of Gefen *et al.* (2003) were students in the US only, whereas this study used students in both the US as Europe as respondents.

Besides the rejected hypotheses, the hypotheses that were not rejected in this study reveal some interesting insights. The aim of this study was examining how e-loyalty can be explained from a TAM and CRM perspective. As can be seen in Figure 16, customer loyalty is directly affected by perceived usefulness, trust, and commitment. The extent to which online customers are loyal to a particular e-vendor may therefore be explained by these three concepts and their antecedents. In line with Gefen *et al.* (2003, p. 73), we find that "PU is a stronger direct predictor than trust". The strongest influencer, however, is commitment.

The addition of satisfaction and commitment in particular, and the strong relationships that have been found between these concepts and the concepts in the Gefen *et al.* (2003) model, make the model used in this research a useful extension to this model. What we have developed here is a more complete model than the model that Gefen *et al.* (2003) presented.

The most important thing is that we found an answer to the research question that was posed in section 3.1; what, if any, are the determinants of customer loyalty, and how do these determinants interact. Figure 16 may be considered our answer to this question. It shows the direct and indirect determinants of customer loyalty and the relationship between these determinants.

5.2. Implications

The fact that both concepts from the field of CRM (trust and commitment), and from the TAM (perceived usefulness) have such statistically significant direct influence on customer loyalty justifies the combination of a TAM perspective and a CRM perspective. Apparently, the online environment actually affects the relationship between online

businesses and their customers. Online businesses should therefore take the influences of the context in which a relationship evolves into consideration in their attempt to enhance loyalty among customers, because the traditional insights may not be sufficient. It seems important to focus on making sure that consumers perceive a Web site as being easy to use and useful in their activities, and at the same time focus on satisfying these consumers and enhancing their trust and commitment towards the vendor.

In terms of theoretical implications, we can say that the model that has been developed in this study is a more complete model that can be used to examine determinants of customer loyalty, and to explain and predict customer loyalty in an online environment. The fact that the effect of commitment is so strong ($\beta = 0.54$), suggests that the Gefen *et al.* (2003) model may be somewhat simplistic when examining customer loyalty.

In addition, the rejected hypotheses provide some interesting opportunities for further research. First of all, the link between surprise and satisfaction still needs additional research to validate the suggested relationship. Furthermore, it seems interesting to find out whether or not the effect of satisfaction on customer loyalty can indeed be fully mediated by trust and commitment. The fact that perceived playfulness did not have significant influence on satisfaction and loyalty also asks for additional research. It seems interesting to examine whether or not it is indeed a more general characteristic that has no distinguishing power to affect the consumers' choice of an electronic vendor.

Other suggestions for future research are examining this model in situations of higher-risk products or services. Also, cross-cultural influences could be examined.

5.3. Limitations

This study has a number of limitations that are similar to those identified in the research by Gefen *et al.* (2003). As did Gefen *et al.* (2003), this study focuses on students who had purchased products from the WWW in the past. As Karahanna *et al.* (1999) say, the relative importance of the various trust building mechanisms and TAM may be at variance with inexperienced users, or with experienced users who have never purchased from a Web site. The extent to which consumers trust a particular Web site, and consequently are loyal to that Web site, may therefore change over time along with the level of experience of the consumer himself. This effect has not been taken into account in this study.

External validity is also threatened by the composition of the sample. As Gefen *et al.* (2003) put it, "Remus (1986) found that business students were good surrogates for managers, but no one has reported on the extent to which they are good surrogates for online consumers". Additionally, no consideration was given to the potential cross-cultural differences between the two groups of respondents (student in the US, and students in Europe). This may have affected our results.

As this study is limited to low-risk products, requiring less trust, future research should test the model in different contexts in order to gain insights into the generalisability of the model.

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Appendix A – Global e-Commerce Report (GeR) 2002

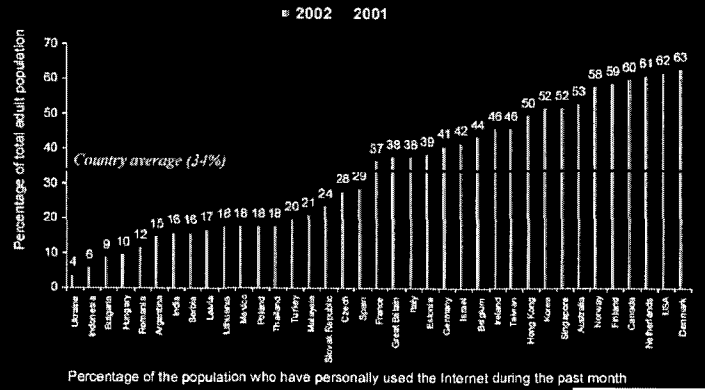
Key numbers 2002...

	Country Average 2000	Country Average 2001	Country Average 2002	Year on Year Change	Lowest	Highest
Internet users	27%	31%	34%	+ 3%	Ukraine 4%	Denmark 63%
Online shoppers	10%	15%	15%	no change	Bulgaria 0%	USA 32%
Online dropouts	15%	15%	16%	+ 1%	Bulgaria 0%	Hungary 33%
Offline shoppers	13%	15%	15%	no change	Ukraine 0%	Hungary 45%
Future online shoppers	14%	17%	18%	+ 1%	Ukraine 0%	Hungary 60%



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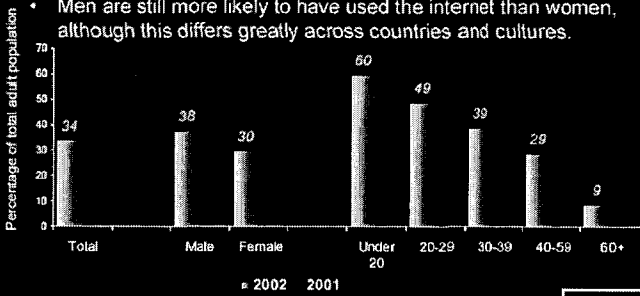
Internet users across the world 2002/2001



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Internet penetration and demographics

- A very large percentage of the younger adult population has used the internet in the past month. The total penetration figures continue to be reduced by the general trend of an ageing population and their non-use of the internet.
- Men are still more likely to have used the internet than women, although this differs greatly across countries and cultures.



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Online shoppers 2002

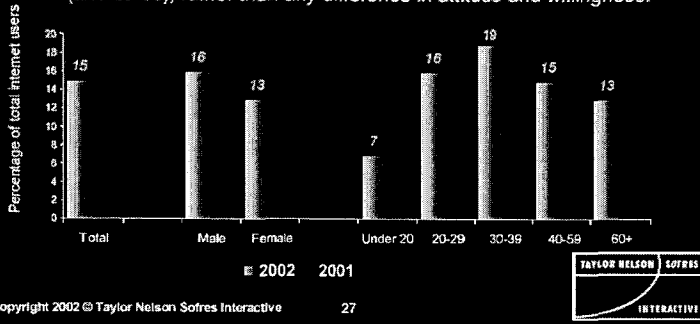
- The USA retains its position as the nation with the greatest proportion of online shoppers at 32% of all Internet users. This compares with the global average of 15%.
- In Bulgaria, Ukraine and Romania, 2% or less of the online population shop online.



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Online shoppers and demographics

- As spending power increases with age (up to 40 years of age), so shopping online continues to be an increasingly popular option.
- The youngest age group continues to be so unlikely to shop online that even the oldest (age 60+), internet users surpass them. For younger users this is likely to be due to the non-availability of credit (and cards), rather than any difference in attitude and willingness.



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Future online shoppers

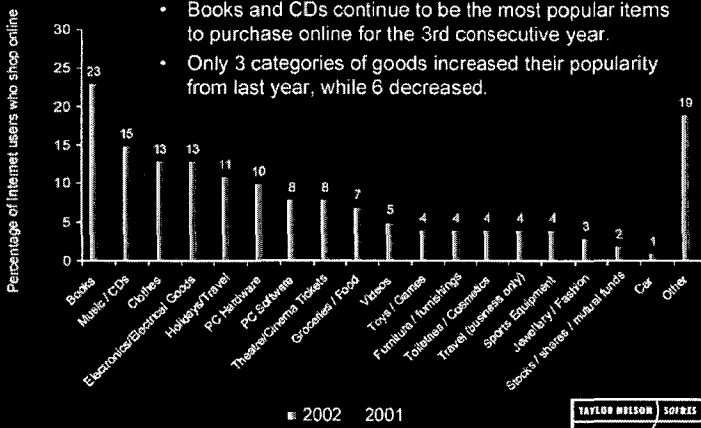
- The future of online shopping continues to look healthy in many countries, with this metric predicting substantial increases in eCommerce activity over the next 6 months.
- It should be remembered that this figure includes a number of people who have already shopped online and that similar growth was expected last year, but didn't materialise.



Percentage of Internet users who plan to shop online within the next 6 months
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Products purchased online

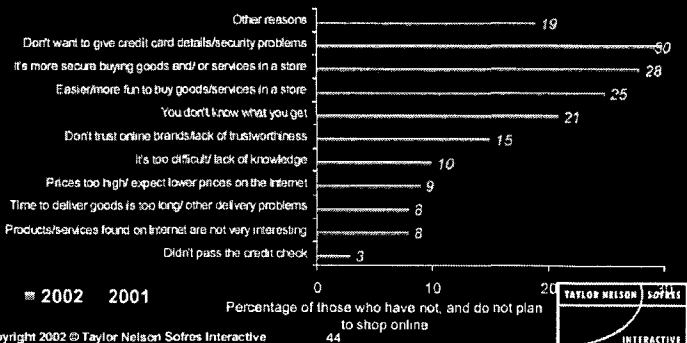
- Books and CDs continue to be the most popular items to purchase online for the 3rd consecutive year.
- Only 3 categories of goods increased their popularity from last year, while 6 decreased.



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Reasons for abstaining from shopping online

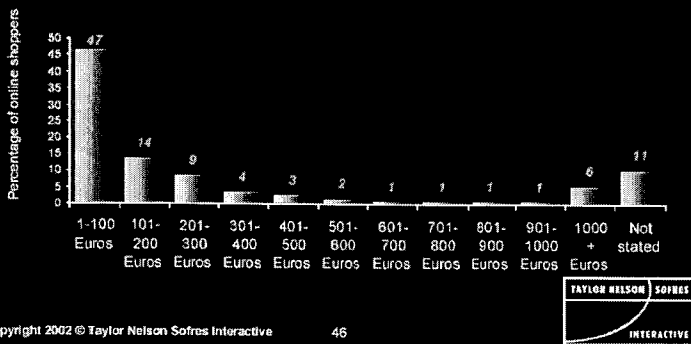
- Globally the biggest reasons for not purchasing online continue to be security related with 30% (up by 5%) of abstainers stating that they didn't want to give credit card details and 28% citing general security concerns.



Percentage of those who have not, and do not plan to shop online
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eCommerce spend

- The increase in popularity of high value items such as holidays and travel is reflected in the 6% of online shoppers who have spent more than 1,000 Euros in the last 4 weeks online.



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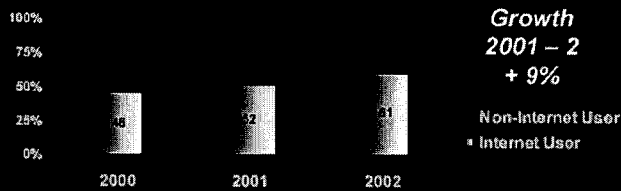
The Netherlands

- Internet usage in the Netherlands increased by 9% over the last year. This is a bigger growth than the year before, and it means that the growth of internet usage in The Netherlands is far from over.
- Despite this, the percentage of online shoppers amongst internet users has only increased by 2% over the last year. This is because new internet users tend to be more conservative in terms of online shopping.
- In The Netherlands there is still a lot of scepticism about the quality of online products and the security of buying products online.
- Men and the 30-39 age group are the biggest online shoppers amongst internet users.
- Online shoppers above the age of 40 spend most money online. This is because they buy/order expensive products online, such as holidays and PC Hardware.

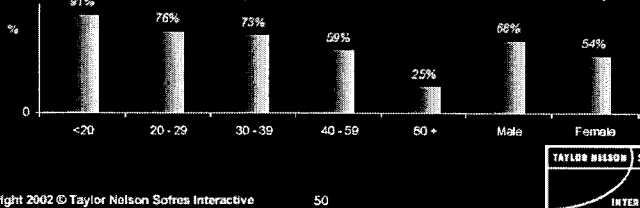
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The Netherlands

Percentage of population who are Internet users



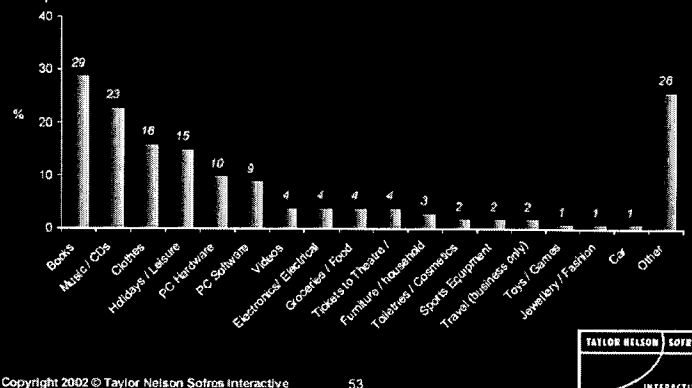
Percentage of specific age groups and sexes who are Internet users (2002)



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The Netherlands

Actual purchases among Internet users who have shopped online during past month

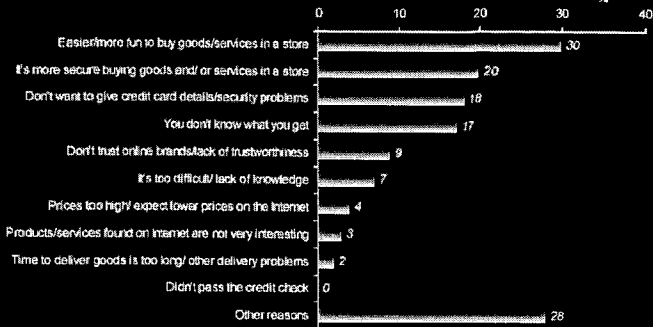


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The Netherlands

Reasons for not purchasing goods and services online (given by respondents who have NOT purchased online)

Please note that multiple responses per respondent were recorded

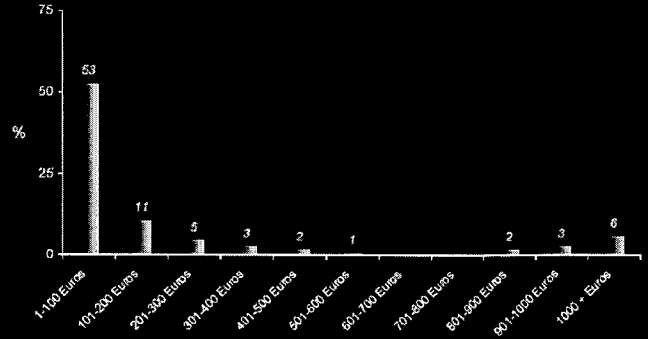


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The Netherlands

Value of total purchases or orders made in the last 4 weeks

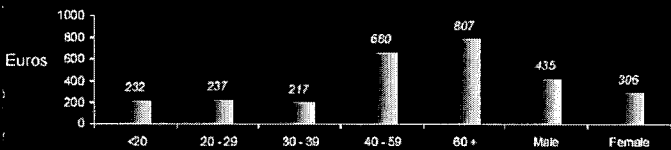


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The Netherlands

Mean average value of total purchases or orders made in the last 4 weeks by age and sex



Total value of purchases or orders made in the last 4 weeks

Mean average per shopper = Euros 388
Median average per shopper = Euro 90

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Appendix B – Online questionnaire

Part A

Internet Use

A01 On average, how frequently do you use the Internet?

Never/Almost Never	less than once a month	a few times a month	a few times a week	about once a day	several times a day
1	2	3	4	5	6

A02 From which location do you usually use the Internet?

- home
 office
 school/university

A03 What is the type and speed of the Internet connection you usually use?

- Analogue modem (28.8/56.6 kb/s)
 ISDN (64/128 kb/s)
 Cable/ADSL (160 kb/s and faster)
 T1 or higher (university and company networks)
 I do not know
 Other (please specify type and speed, if known)

A04 On average, how much time do you spend when you are online?

Never/Almost Never	less than ½ hour	From ½ hour to 1 hour	1-2 hours	2-3 hours	More than 3 hours
1	2	3	4	5	6

A05 Please indicate the extent to which you use the Internet to perform the following tasks

	<i>Not at all</i>					<i>To a great extent</i>				
a. Get information	1	2	3	4	5					
b. Get product support	1	2	3	4	5					
c. Communicate with people	1	2	3	4	5					
d. Get free resources	1	2	3	4	5					
e. Purchasing/shopping	1	2	3	4	5					
f. Apply for job	1	2	3	4	5					
g. Swapping/selling transactions	1	2	3	4	5					

A06 Please indicate how often you have bought a CD, book or video directly from a Web site

Never *	Once **	Twice **	3-5 times**	5-10 times**	More than 10 times**
1	2	3	4	5	6

* Please go to question 6

** Please skip question 6, and go to part B

A07 In case you have NEVER bought a book or CD directly from the Internet, please indicate why you have never done so. You may then proceed to **part E**. Please do not answer any of the questions in parts B, C, and D.

- () I do not trust the Internet enough to provide my personal data to it
 () I prefer traditional shopping at a store
 () I do not feel the need to
 () Other, namely:

.....

Part B

Using the online vendor's Web site

EASE OF USE

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The following questions are concerned with your assessment of how easy it is to use the online vendor's Web site. Please indicate to what extent you think the proposition is likely or unlikely to apply to this online vendor's Web site. Your answer may range from "extremely likely" to "extremely unlikely", over a scale from 1 to 7.

	Extremely Likely							Extremely Unlikely						
1. The Web site is easy to use	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. It is easy to become skilful at using this Web site	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. Learning how to operate the Web site is easy	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. The Web site is flexible to interact with	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5. My interaction with the Web site is clear and understandable	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6. It is easy to interact with the Web site	1	2	3	4	5	6	7	1	2	3	4	5	6	7

USEFULNESS

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The following questions are concerned with your assessment of how useful it is to use the online vendor's Web site. Again, please indicate to what extent you think the proposition is likely or unlikely to apply to this online vendor's Web site, over a scale from 1 to 7.

	Extremely Likely							Extremely Unlikely						
<i>The online vendor's Web site ...</i>														
1. ...is useful for searching and buying CD's/books	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. ...improves my performance in CD/book searching and buying	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. ...enables me to search and buy CDs/books faster	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. ...enhances my effectiveness in CD/book searching and buying	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5. ...makes it easier to search for and purchase CDs/books	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6. ...increases my productivity in searching and purchasing CDs/books	1	2	3	4	5	6	7	1	2	3	4	5	6	7

PLAYFULNESS

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. This subpart is concerned with the extent to which you think interacting with the online vendor catches your concentration gives you feelings of enjoyment and arouses your curiosity. Please indicate to what extent you agree or disagree with the following propositions regarding the online vendor's web site. Your answer may range from "strongly disagree" to "strongly agree", over a scale from 1 to 7.

	Strongly Disagree							Strongly Agree						
1. When interacting with the online vendor's Web site, I do not realize the time elapsed	1	2	3	4	5	6	7	1	2	3	4	5	6	7

2.	When interacting with the online vendor's Web site, I am not aware of any noise	1	2	3	4	5	6	7
3.	When interacting with the online vendor's Web site, I often forget the work I must do	1	2	3	4	5	6	7
4.	Using online vendor's Web site gives enjoyment to me for my task	1	2	3	4	5	6	7
5.	Using online vendor's Web site gives fun to me for my task	1	2	3	4	5	6	7
6.	Using online vendor's Web site keeps me happy for my task	1	2	3	4	5	6	7
7.	Using online vendor's Web site stimulates my curiosity	1	2	3	4	5	6	7
8.	Using online vendor's Web site leads to my exploration	1	2	3	4	5	6	7
9.	Using online vendor's Web site arouses my imagination	1	2	3	4	5	6	7

EMOTIONS

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The following questions try to examine how you felt about using the Web site. Please use the scales provided to indicate how you felt when using the Web site. Your answers may range from "not at all" to "a lot", over a scale from 1 to 5.

	Not at all				A lot
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5

Please use the following scales in order to rate how you felt about using the Web site (Dutch translation is provided)

	Not at all				A lot
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
7.	1	2	3	4	5
8.	1	2	3	4	5
9.	1	2	3	4	5
10.	1	2	3	4	5
11.	1	2	3	4	5
12.	1	2	3	4	5
13.	1	2	3	4	5
14.	1	2	3	4	5
15.	1	2	3	4	5
16.	1	2	3	4	5
17.	1	2	3	4	5
18.	1	2	3	4	5
19.	1	2	3	4	5
20.	1	2	3	4	5
21.	1	2	3	4	5

Part C**Assessing your exchange partner****TRUST**

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The following questions will examine the extent to which you trust the online vendor. Please indicate to what extent you agree or disagree with the following propositions regarding the online vendor. Your answer may range from "strongly disagree" to "strongly agree", over a scale from 1 to 7.

	Strongly Disagree					Strongly Agree
Based on my experience with the online vendor in the past, ...						
1.	1	2	3	4	5	6 7

2.	...I know it cares about customers	1	2	3	4	5	6	7
3.	...I know it is not opportunistic	1	2	3	4	5	6	7
4.	...I know it provides good service	1	2	3	4	5	6	7
5.	...I know it is predictable	1	2	3	4	5	6	7
6.	...I know it is trustworthy	1	2	3	4	5	6	7
7.	...I know it knows its market	1	2	3	4	5	6	7

TRUST ANTECEDENTS

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. Please indicate to what extent you agree or disagree with the following propositions regarding the online vendor. Your answer may range from "strongly disagree" to "strongly agree", over a scale from 1 to 7.

		Strongly Disagree						Strongly Agree
CBT 1	The online vendor has nothing to gain by being dishonest in its interaction with me	1	2	3	4	5	6	7
CBT 2	The online vendor has nothing to gain by not caring about me	1	2	3	4	5	6	7
CBT 3	The online vendor has nothing to gain by not being knowledgeable when helping me	1	2	3	4	5	6	7
FT1	I am familiar with the online vendor through reading magazines/newspaper articles or ads	1	2	3	4	5	6	7
FT2	I am familiar with the online vendor through visiting the site and searching for CDs/books	1	2	3	4	5	6	7
FT3	I am familiar with the online vendor through purchasing CDs/books at this site	1	2	3	4	5	6	7
AT1	I feel safe conducting business with the online vendor because a third party – providing a seal of approval to this website (i.e. "Thuiswinkel Waarborg") – will protect me	1	2	3	4	5	6	7
AT2	I feel safe conducting business with the online vendor because of it provides a 0900 – number	1	2	3	4	5	6	7
AT3	I feel safe conducting business with the online vendor because of its statement of guarantees	1	2	3	4	5	6	7
AT4	I feel safe conducting business with the online vendor because I accessed its site through a well-known, reputable portal	1	2	3	4	5	6	7
NT1	The steps required to search for and order a CD/book are typical of other similar Web sites	1	2	3	4	5	6	7
NT2	The information requested of me at this Web site is the type of information most similar type Web sites request	1	2	3	4	5	6	7
NT3	The nature of the interaction with the Web site is typical of other similar type Web sites	1	2	3	4	5	6	7

SATISFACTION

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The following questions are concerned with your satisfaction with the online vendor and its Web site. Please indicate to what extent you agree or disagree with the following propositions regarding the online vendor. Your answer may range from "strongly disagree" to "strongly agree", over a scale from 1 to 7.

		Strongly Disagree						Strongly Agree
SAT1	I am satisfied with my decision to purchase from this Web site	1	2	3	4	5	6	7
SAT2	If I had to purchase again, I would feel differently about buying from this web site	1	2	3	4	5	6	7
SAT3	My choice to purchase from this Web site was a wise one	1	2	3	4	5	6	7
SAT4	I feel badly regarding my decision to buy from this web site	1	2	3	4	5	6	7
SAT5	I think I did the right thing by buying from this web site	1	2	3	4	5	6	7
SAT6	I am unhappy that I purchased from this web site	1	2	3	4	5	6	7

Part D

To switch or not to switch

COMMITMENT

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The questions in this subpart will examine your commitment to the online vendor.

		<i>Strongly Disagree</i>					<i>Strongly Agree</i>	
		1	2	3	4	5	6	7
AC1	It is pleasant shopping at this online vendor; that's why I continue buying products from it							
AC2	I want to remain a customer of this online vendor, because I genuinely enjoy my relationship with it							
AC3	My decision to remain a customer of this online vendor is based on my attraction to the things this online vendor stands for as a company							
AC4	I like shopping at this online vendor, and want to remain one of its customers							
CC1	There is just too much time, energy, and expense involved in switching to another vendor, that is why I stay with this online vendor							
CC2	Right now, staying with this online vendor is a matter of necessity since no feasible alternative exists							
CC3	It would be take quite some effort for me to go to another online shop, so I continue buy from this online vendor							
CC4	It is too difficult to switch to another online vendor because of the lack of good alternatives; therefore I stay with this online vendor; otherwise, I would consider leaving							

LOYALTY

Please remember that the questions below should be answered with regard to the online vendor you last purchased a CD, book or video from. The following questions are concerned with your attitude and behaviour regarding the online vendor. Please indicate to what extent you think the proposition is likely or unlikely to apply to this online vendor. Your answer may range from "not at all likely" to "very unlikely", over a scale from 1 to 7.

		<i>Not at all likely</i>					<i>Very likely</i>	
		1	2	3	4	5	6	7
B1.	I seldom consider switching to another website							
B2.	As long as the present services continues, I doubt that I would switch websites							
B3.	I try to use the website whenever I need to make a purchase							
B4.	When I need to make a purchase, this website is my first choice							
A1.	I like using this website							
A2.	To me this website is the best retail website to do business with							
A3.	I believe that this is my favourite retail website							

Part E

Buying Products Online

ATTITUDE

The following questions are meant to measure your attitude towards buying products online. Please indicate, on a scale from 1 to 7, how you feel about the following propositions. Please note the various scale ends.

Please note that these questions are concerned with buying products online per se. Your answer should not depend on the Web site you last purchased from, but should depend on your attitude towards buying products online in general.

1.	Buying products online is a (good/bad) idea	<i>Good</i>					<i>Bad</i>	
		1	2	3	4	5	6	7
2.	Buying products online is a (wise/foolish) idea	<i>Wise</i>					<i>Foolish</i>	
		1	2	3	4	5	6	7
3.	Buying products online is a (pleasant/unpleasant) idea	<i>Pleasant</i>					<i>Unpleasant</i>	
		1	2	3	4	5	6	7
4.	Buying products online is a (positive/negative) idea	<i>Positive</i>					<i>Negative</i>	

Part F

Demographics

D1. Please select your gender

- Male
 Female

D2. How old are you?

- | | | | | |
|-----|-------|-------|-------|-----|
| <20 | 20-29 | 30-39 | 40-59 | >60 |
| 1 | 2 | 3 | 4 | 5 |

D3. What is your nationality?

- Dutch
 German
 Belgian
 American
 Australian
 Other (please specify)

D4. What is your highest level of education?

- Primary
 Secondary
 Pre-university/ junior college
 Bachelor Degree
 Master Degree
 Doctorate Degree
 Other

D5. What is your profession?

- Student/Trainee
 Self-employed
 Employee
 Housewife
 Without profession
 Pensioner

D6. What university are you from?

- Eindhoven University of Technology
 University of Maastricht
 University of Technology Sydney
 University of Michigan
 Other (please specify)

Appendix C – Answers to open questions in questionnaire

Question D6A: What university are you from?	Frequency
Free University Berlin	1
University of Nijmegen	3
Tilburg University	2
UC Berkeley	1
University of Technology Troyes	1
Royal Institute of Technology	1

Question A07: Please indicate why you have never bought a CD, book or video directly from the Internet.

I don't buy that many books or CD's. I spend my money on different things, like travelling. When I buy a book or a CD it's mostly as a gift, and in that case prefer to go to the shop to feel and touch the product.

I never read books that are not study related

The price of books (including shipping costs) isn't better than in a bookstore when buying single products. Delivery times are too long when buying online, especially for course material.

I do not buy those products frequently enough.

I don't usually buy any books. And I never buy CD's and video's, I just download them.

I do not have a credit card

I prefer traditional shopping at a store after being informed by the internet. If I need something, I don't feel like waiting a day or two before receiving the product.

It has never occurred

I buy other items from the Internet

I don't like to buy a CD

It is not cheaper because of the freight fees when purchasing small volumes.

I hardly ever buy books CD's or video's. Whenever i do buy one i do not want to wait for it. So i buy the product in a shop.

I do not buy books cd's or video's very often.. I bought a mobile telephone once from the internet

I don't buy CD's, books or video's

I tried to buy one once at bol.com. This gave so many problems that I cancelled my order. From that point in time, I still prefer traditional shopping at a store.