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Relationship Quality and Customer Retention through Strategic Communication of Customer Skills

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This article discusses the idea of a strategic communication of customer skills - a rather neglected relationship marketing strategy. This idea is based on an interpretation of the customer as the company's partner in the value production process. Customer skills are defined as the total of all product-related knowledge and skills of relevance to any aspect of the customer's post-purchase behaviour (e.g. the ability to use the full range of product features). The author assesses whether communicating customer skills strategically may lead to an increase in perceived relationship quality and customer retention as key variables in relationship marketing. Several hypotheses regarding the interrelations between an increase in customer skills and relationship quality are drawn out from a conceptualisation of both constructs. The validity of these hypotheses is then tested empirically using a structural equation modelling approach for two products, i.e. video recorders and reflex cameras. Results give strong support to the relevance of skills communication for relationship marketing success.

Introduction

In recent years there has been a tremendous increase in the number of scientific publications dealing with relationship marketing. Indeed, the idea of relationship marketing (Berry 1983; 1995; Payne *et al.* 1995; Sheth and Parvatiyar 1995a) has been one of the key developments of modern marketing science, inspiring special journal issues, conferences (e.g. Sheth and Parvatiyar 1994) and monographs (Christopher, Payne, and Ballantyne 1991; Gummesson 1999). Standard marketing texts have even needed revision (Kotler 1997); Brown (1997, p.170) reports that "publishers now demand a relationship marketing angle - a very steep angle, let it be said - in all introductory textbooks."

Relationship marketing has also been taken up by practitioners. After conquering the areas of service and business to business marketing, it has now begun to find application in the consumer goods sector. However, this new sector

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offers special challenges since it often involves the mass production of standardized product units. This can lead to a large "gap" between manufacturer and consumer, where the one may have little contact with the other. For marketing practice, this means that relationship marketing in the consumer goods sector is often restricted to service hotlines and personalised mailings. Even academic discussion of relationship marketing has tended to ignore the special problems faced by manufacturers of consumer goods (for exceptions, see Bagozzi 1995; Ellis, Lee, and Beatty 1993; Sheth and Parvatiyar 1995b).

One effective way in which these manufacturers might increase customer retention (which is the main purpose of relationship marketing) could be to increase customers' post-purchase skills through targeted investments in the customers themselves. Such a strategy is based on an interpretation of the *customer as a co-producer* in the value-creation process (see Normann 1991; Wikström 1996). If such a strategy is to succeed, then a significant amount of product value must be initially inaccessible to the customer (e.g. the customer should be unable to use certain product features). This condition was analysed in a study by Hansen and Hennig (1996). In a representative survey of 500 people in Germany, they found that 65% of those who owned a video recorder were only able to use a proportion of the available functions. Consumers felt they were *unable* to use an average of 26% of product functions. The equivalent percentages for personal computers were 92% (proportion of customers not able to use all the functions) and 45% (average proportion of functions not being used by the customer because of missing skills), for washing machines 39% and 13% respectively. At the same time, it must be possible for marketing management to give the consumer access to this additional value by increasing his or her skills. Then, such an increase in customer skills should produce a higher level of customer satisfaction and also have positive effects on other dimensions of the quality of the customer-company relationship (Hennig-Thurau 1998; Honebein 1997).

The aim of this paper is to establish a theoretical basis for the value of a strategic increase in customers' post-purchase skills, in terms of an increase in relationship quality and customer retention in the context of consumer goods, as well as to test this theoretical basis empirically. Firstly, a closer conceptualisation of customer skills and a discussion of the various dimensions making up relationship quality are used to underpin statements regarding the influence of skills transfer on this relationship quality. The paper draws out the causal relationships between these two constructs, and these relationships then form the basis of the empirical work. Then, an empirical test is carried out on an exemplary basis for two product groups; VCRs and reflex cameras. Finally, closer attention is given to the definition of relationship marketing success, including due consideration of the costs associated with the communication of customer skills.

Strategic Communication of Customer Skills

A consumer possesses a range of knowledge and physical as well as social skills which determine the way in which he or she interacts with a product post-purchase. In this article, the term *customer skills* is taken to mean the sum total of all knowledge and skills of relevance to any aspect of the post-purchase interaction between the customer and the product (Hennig-Thurau 1998). One has to differentiate between two fundamental levels of customer skills:

- First a distinction can be made between the consumer's *technical* and his or her *social competence*. Technical competence is at the core of this analysis and refers to the cognitive and physical skills and abilities which the consumer must possess if he or she is to gain the most benefit from the product in question. The consumer can only record a TV programme using the VCR if he or she is aware of the appropriate product function and able to use it. The social (or communicative) component of competence is, in a sense, a conceptual precursor of much technical competence, since it relates to the customer's ability to properly interact with the employees of the product manufacturer (e.g. in the context of some problem with using the product in question). If the customer uses a telephone support line, but is unable to properly articulate his or her problem, then even the best customer service staff in the world will have little success solving this problem.
- Furthermore, one can distinguish between different skill *phases and areas of application*. Specifically, we can distinguish between (1) those skills which are required after the product is purchased, but before it can be used (e.g. those skills required for installing or assembling a product), (2) those skills related to the actual use of the product, and (3) those skills needed when the product is temporarily not being used (e.g. when in storage or when being cleaned). There is also a potential benefit associated with the disposal of the product at the end of its life cycle; and consumers need specific skills if they are to make use of this potential benefit (e.g. through environmentally-friendly waste disposal or by returning the product to the manufacturer; see Jacoby, Berning, and Dietvorst 1977). Figure 1 provides an overview of optional areas of application for customer skills.

As these two levels are cross-referenced, it is possible to identify *basic customer skills fields*. These fields are listed in Table 1, with examples.

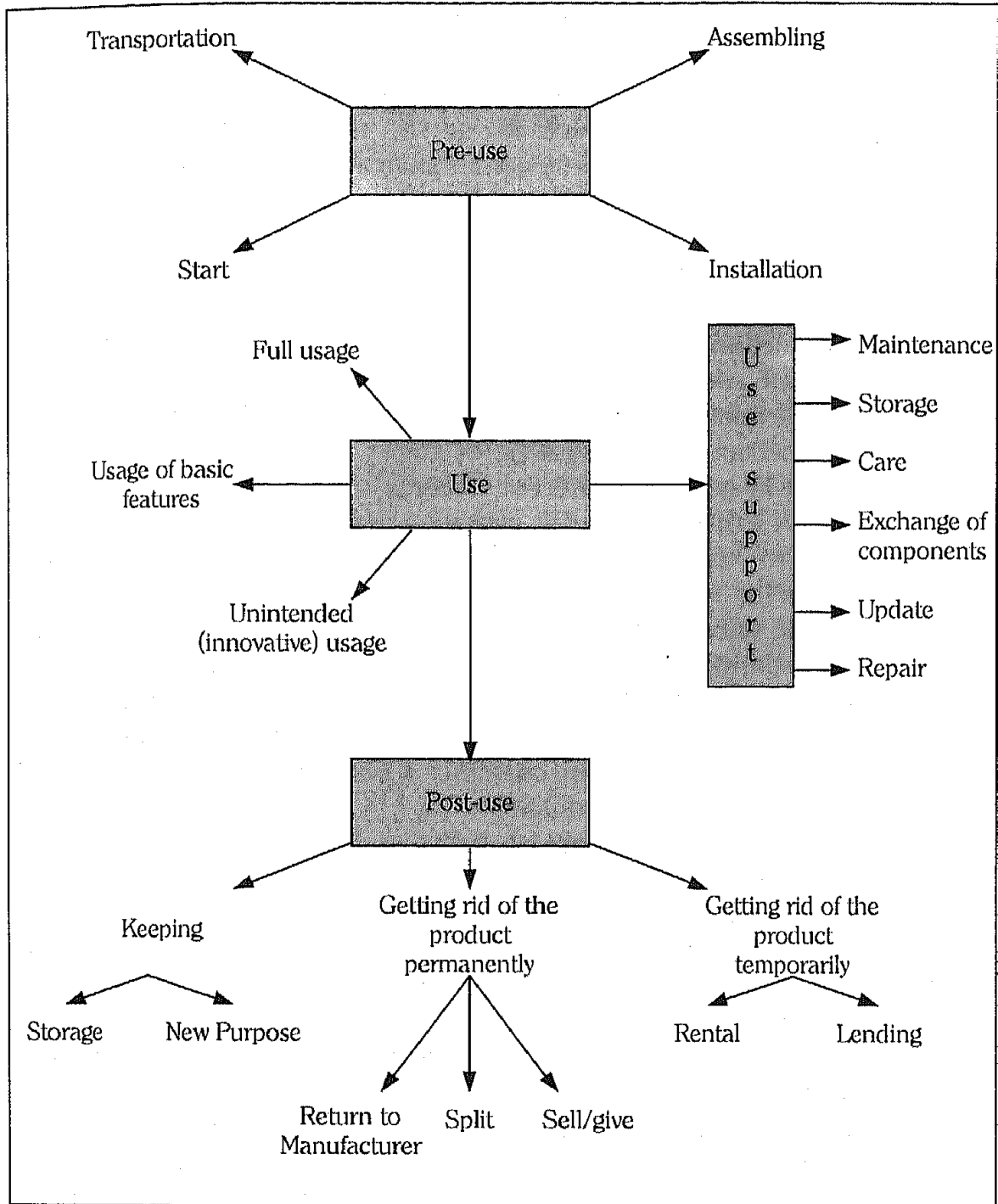


Figure 1: Phases and Applications of Customer Skills

The communication of customer skills requires a *comprehensive approach* involving aspects of both marketing strategy and implementation (i.e. appropriate tools and instruments). With regard to *marketing strategy*, the idea of skills communication needs to be incorporated within the normative management concept and needs to be coordinated with the company's market-oriented objectives and strategies. If this communications approach is to be taken seriously by consumers, then a company's efforts in this context have to be given some form of formal support and recognition within the company structure and

culture. This means that company philosophy must include the desire to be seen as a "public educational institution" or "customer trainer" (in the sense of an attainable utopia). This change also gives concrete form to the broader concept of customer orientation necessary for such an approach to succeed in the first place.

Table 1: Basic Customer Skills Fields, with Examples

Components/ Areas	Technical competence (knowledge and physical skills)	Social competence (social skills)
Pre-use	e.g. installation of a personal computer (PC)	e.g. using the PC-manufacturer's hotline to solve an installation problem
Use	e.g. programming a VCR to record a movie	e.g. complaining to the VCR manufacturer that the product fails to live up to its billing
Use support	e.g. appropriate storage of an open tin of baby food	e.g. using the food manufacturer's customer hotline to find out the recommended storage temperature
Post-use	e.g. disposal of a refrigerator	e.g. contacting the manufacturer to ask for advice on how to properly dispose of a product

As with other relationship marketing activities, there also needs to be non-uniform treatment of customers (in investment terms) when systematically communicating customer skills. The key dimensions of such a skills-related segmentation approach could be the ability of customers to develop such skills as well as the demand from customers for these additional product skills. Figure 2 demonstrates the integration of both criteria in a customer skills portfolio. Here, four segments can be distinguished: customers with low interest in additional skills and at the same time low learning capacities (segment D), highly interested customers with low learning capacities (C), customers being strongly interested in additional skills and being able to learn more (B), and customers with high learning resources but no interest in company's skills communication activities (A). Although segment B is most attractive for skills communication, companies should try to find out whether the learning motivation of segment A may be increased. It must be mentioned here that for relationship marketing purpose, the output of this skills segmentation approach has to be cross-checked for its relational compatibility. That is, are customers of segments B and A attractive from a relationship marketing standpoint?

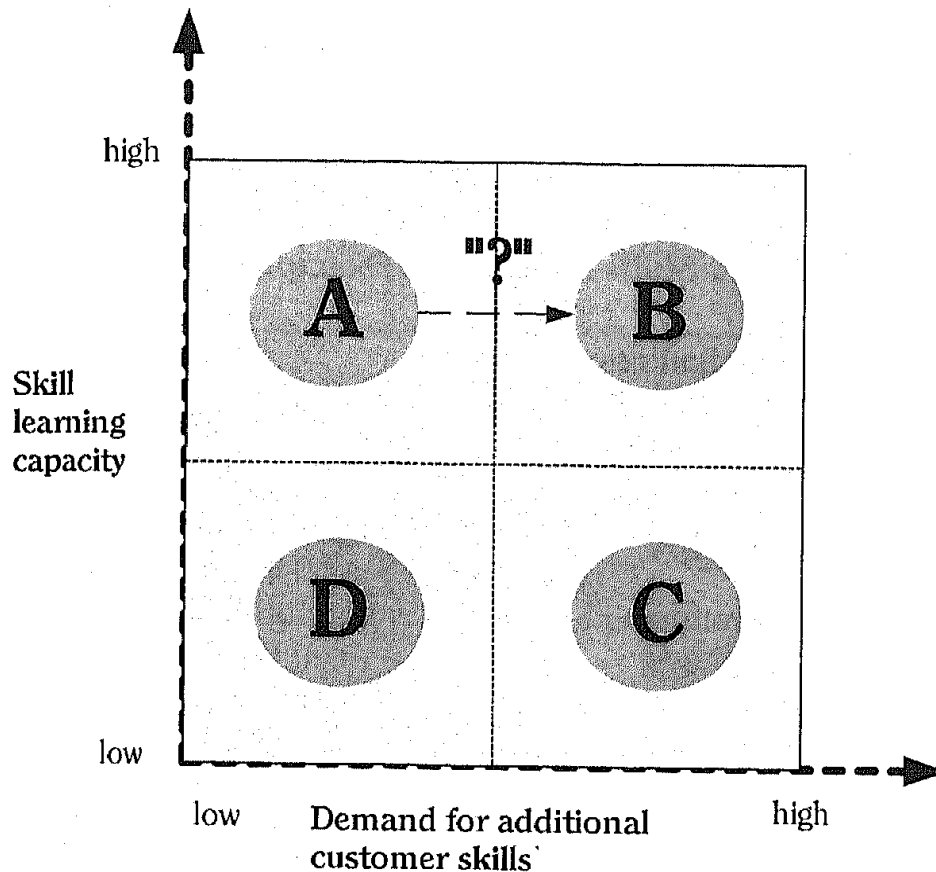


Figure 2: Customers' Skills-Related Abilities and Demand as Criteria for Skills-Related Market Segmentation

The *implementation aspect* of this approach is primarily about finding a set of integrated tools for communicating skills and identifying the requirements which these tools would have to fulfil in terms of a required "skills mix." The choice of tools could include some of the classic communication (e.g. instruction manuals, customer magazines) and service (e.g. hotlines, customer training) instruments, but might also draw on other areas of business and manufacturing. Product design, for example, might also be useful in this context, since it can help make the application of communicated skills so much easier (e.g. through user-friendly interfaces) or ease the communication of customer-oriented information through the product itself (e.g. through built-in learning facilities). For instance, at BOSCH-SIEMENS intensive efforts have been made in recent years to improve the usability of products by eliminating usage barriers and defining benchmarks for "user friendliness." To be truly effective, instrumental measures related to skills transfer should not be carried out in isolation. Instead, their design and implementation should be coordinated so as to achieve as much synergy as possible, with the overall aim of achieving a particular increase in customer skill levels. Figure 3 lists some of the basic tools used for communicating skills, and outlines the interactions between these tools within the overlying, integrated "skills mix" (Hennig-Thurau 1998, p. 397).

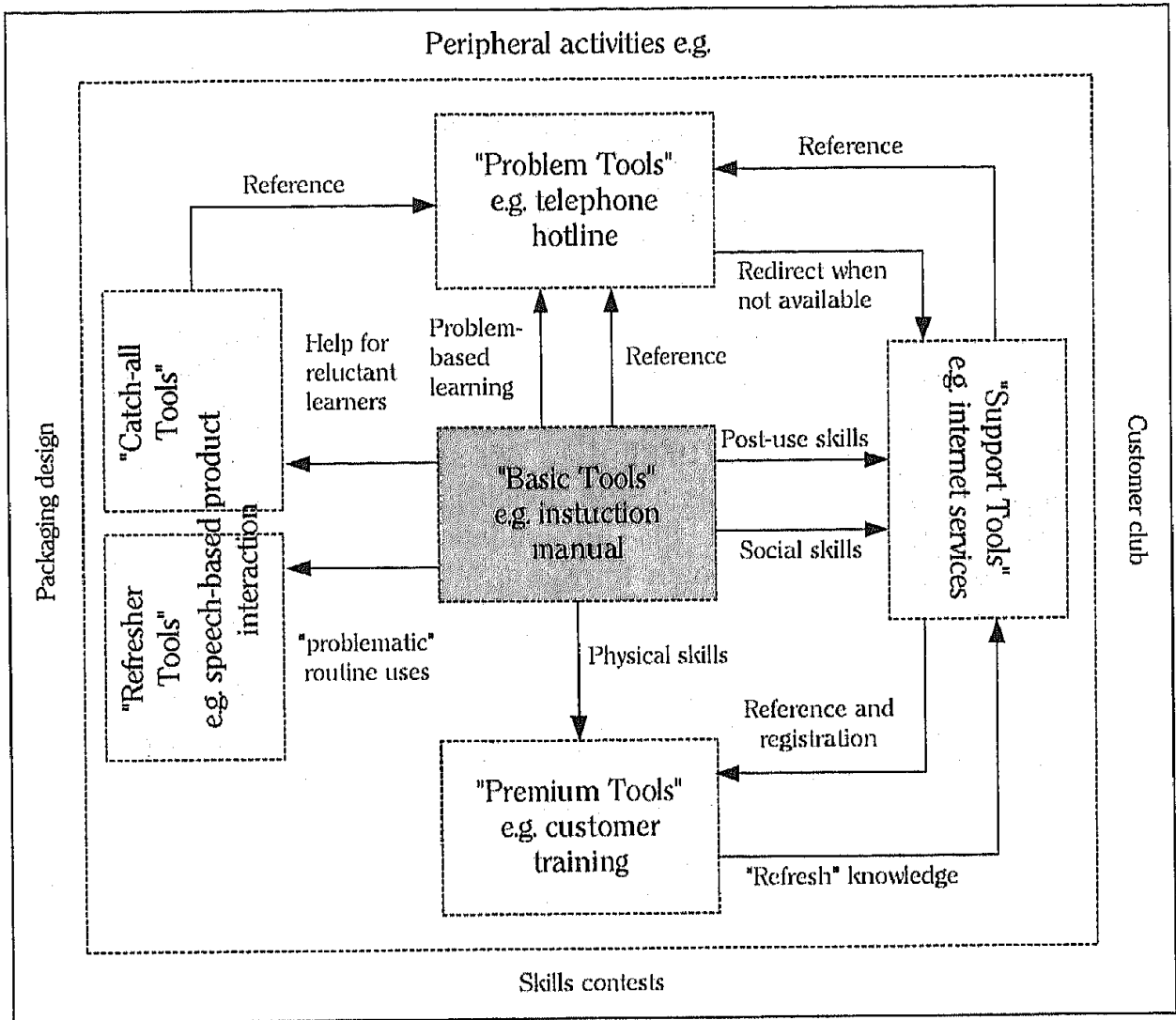


Figure 3: Integration of Different Skills Communication Tools in the Form of a “Skills Mix”

The Influence of Increased Customer Skills on Relationship Quality in Markets for Consumer Goods

Relationship Quality: Conceptualisation and Literature Review

There is wide agreement in the relationship marketing literature that the quality of the relationship between the parties involved is an important determinant of the permanence and intensity of this relationship and, therefore, of the success of relationship marketing. Closer examination of this literature reveals that most authors do not feel the need to closely define the relationship quality construct. They tend to assume that everyone has some kind of intuitive understanding of what it involves. As a consequence, sophisticated discussion of the issue is rare. The wide absence of in-depth scientific analysis contrasts markedly with the real complexity of customer-company relationships. It also constrains any attempt to examine the influence of a customer skills communication strategy on the quality of these relationships.

Among the few who have analysed relationship quality more closely, Palmer and Bejou (1994) present various factors which (in the sense of determinants) have an influence on the quality of customer relationships, but do not address the critical issue of the nature of this quality construct itself. In their search for a conceptual model, Crosby and his colleagues (Crosby 1991; Crosby, Evans, and Cowles 1990) are more helpful in this respect. Relationship quality is seen by them as a "higher-order construct...composed of at least two dimensions, (1) trust in the salesperson and (2) satisfaction with the salesperson" (Crosby, Evans, and Cowles 1990, p. 70). The approach taken by Crosby *et al.* is limited in terms of general applicability because it is predominately based on customer-company relationships in the life insurance sector, where the primary goal is the reduction of customer uncertainty. Stahl (1996) does not see customer satisfaction with individual products or services as a true dimension of relationship quality, but puts forward the theory that the accumulation of customer satisfaction experiences over time will eventually transform into a more stable and uniform relationship quality. Dwyer and Oh (1987), Kumar, Scheer, and Steenkamp (1995), Smith (1998) and Dorsch, Swanson, and Kelley (1998) each add individual components or dimensions, respectively, to the trust and satisfaction constructs proposed by Crosby *et al.*. They do not, however, give any detailed explanation for their choice and/or do not analyse the interactions between the constructs' dimensions which then arise.

The *key mediating variables* theory developed by Morgan and Hunt (1994) sees customer trust and commitment as the key to success in relationships with customers. Hennig-Thurau and Klee (1997) combine this theory with the core of the approach taken by Crosby *et al.* to produce their own approach, one which forms the basis of the rest of this paper. The authors conceptualise relationship quality as a three-dimensional construct, where the dimensions are (1) the performance-related perception of quality by the customer, (2) the customer's trust in the ability and willingness of the supplier to achieve the required performance (Ganesan 1994) and (3) the customer's commitment to the relationship. Commitment is seen as the obligation the customer places on himself - based on emotional or calculative reasoning - to stay in the business relationship (Geyskens *et al.* 1996).

The authors postulate complex interactions to exist between these three dimensions. According to their conceptualisation of relationship quality, it can be assumed that customers' performance-related quality perception serves as an antecedent of both trust and commitment (positive relationship), and that trust positively influences the degree of commitment, too.

In contrary to studies interpreting customer satisfaction as an equivalent of relationship quality, Hennig-Thurau and Klee view customer satisfaction as a relatively unstable quantity, dominated by emotional considerations and related to specific business transactions. Paralleling the argumentation of Stahl (1996), satisfaction is seen as a precursor to relationship quality, being a determinant of one dimension of this quality, namely the transaction-independent, cognitive (product- or service-related) perception of quality by the consumer (see Klee and

Hennig 1996 for a more detailed explanation). Relationship quality itself is seen as a central determinant of customer retention, a concept that has been confirmed empirically for some parts of the service sector (Hennig-Thurau, Klee, and Langer 1999). Whilst Table 2 overviews the literature on relationship quality, Figure 4 shows the construct's conceptualisation as proposed by Hennig-Thurau and Klee (1997).

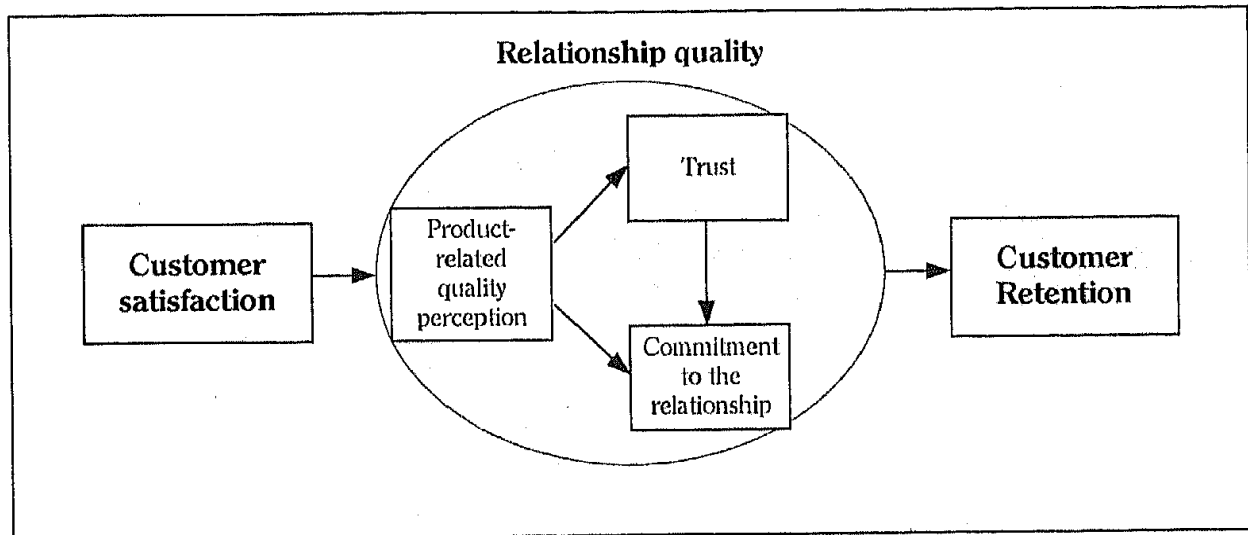


Figure 4: The Conceptual Basis of Relationship Quality

Some Hypotheses on the Influence of Increased Customer Skills on Relationship Quality

Hypotheses concerning the relationship between customer skills and relationship quality can be formulated based on the conceptual constructs established above. These hypotheses focus on consumer electronics. Nevertheless, the conclusions reached would seem applicable to other products and services, provided the customers' behaviour in association with these products or services has a significant influence on his or her assessment of product/service quality.

The Influence of Increased Customer Skills on the Customer's Product-related Perception of Quality

The idea of communicating customer skills is to allow customers to make use of product functions which they were previously unable to access (e.g. a special VCR programming feature). This allows them to capture the additional product benefit normally associated with the use of these additional product features. In many cases, this extra product benefit will contribute to an increase in customer satisfaction with the product during the post-purchase period. The strength of the increase in satisfaction and the actual way in which the relationship between customer skills and customer satisfaction develops will vary on an individual customer basis, according to the demands placed by each consumer on the product. Each consumer may have a different level of interest in being able to

Table 2. A Review of Literature on Relationship Quality

Authors	Definition	Dimension	Determinants	Kind of relationships	Conceptualisation?	Is Conceptualisation empirically tested?
Crosby, Evans, and Cowles (1990), Crosby (1991), Crosby and Stephens (1987)	"High relationship quality means that the customer is able to rely on the salesperson's integrity and has confidence in the salesperson's future performance" (Crosby, Evans, and Cowles 1990, p. 70)	Relationship quality "is conceived as a two-dimensional construct consisting of customer satisfaction and trust in the salesperson" (Crosby, Evans, and Cowles 1990, p. 69)	"similarity," "service domain expertise" and "relational selling behaviour"	Services relationships; focus is on life insurances	No	No
Dorsch, Swanson, and Kelley (1998)	Relationship quality "[is] a higher-order construct that encompasses trust, satisfaction, commitment, minimal opportunism, customer orientation, and ethical profile"	Trust, customer satisfaction, commitment, minimal opportunism, customer orientation, and ethical profile	No	Buyer-vendor relationships; for definition also studies from other fields are considered	No	No
Dwyer and Oh (1987)	Relationship quality "is reflected in satisfaction with and trust of one's exchange partner and minimal opportunism"	Customer satisfaction, minimal opportunism, and trust are "three key facets" of relationship quality	Relationship quality "is affected adversely by [a] partner's a) formalisation, b) resistance to participation in decision making, and c) centralisation"	Buyer-seller relationships in marketing channels	No	No
Gummesson (1987)	Relationship quality "is a concept which has been formed to stress that skilled handling of relations between buyer and seller is part of customer-perceived quality"	No	No; relationship quality is treated as a determinant of customers' service-or product-related quality perception	General approach	No	No
Hennig-Thurau and Klee (1997), Klee and Hennig (1996)	Relationship quality "can be seen generally as the degree of appropriateness of a relationship to fulfill the needs of the customer associated with that relationship"	Product- or service-related quality perception, trust, and commitment	No	General approach	Yes	Yes (Hennig-Thurau, Klee, and Langer 1999)

<p>Kumar, Scheer, and Steenkamp (1995)</p>	<p>None</p>	<p>"We see relationship quality as encompassing conflict, trust, commitment, willingness to invest in the relationship and expectation of continuity"</p>	<p>"Distributive and procedural fairness," "the level of outcomes," "age of the relationship," "environmental certainty"</p>	<p>Buyer-seller relationships in business-to-business markets</p>	<p>No</p>	<p>No</p>
<p>Moorman, Zaltman, and Deshpandé (1992)</p>	<p>None</p>	<p>No; quality of interaction, commitment and customer involvement as "elements" of "relationship process" which is implicitly interpreted as being synonymous to relationship quality</p>	<p>Trust as determinant of "relationship process"</p>	<p>Relationships between market research firms and their customers ("professional services")</p>	<p>No</p>	<p>No</p>
<p>Palmer and Bejou (1994)</p>	<p>None</p>	<p>No</p>	<p>Relationship satisfaction, sellers trustworthiness, sellers customer orientation, selling expertise and sellers' ethics are "determinants" and "pre-requisites" respectively</p>	<p>Services relationships, in particular "investment services"</p>	<p>No</p>	<p>No</p>
<p>Smith (1998)</p>	<p>Relationship quality "is a higher-order construct comprised of a variety of positive relationship outcomes that reflect the overall strength of a relationship and the extent to which it meets the needs and expectations of the parties"</p>	<p>Not explicitly, but "Relationship quality is being manifest in at least the three related constructs of trust, satisfaction, and commitment"</p>	<p>"Relationship management" ("open communication", "relationship investment", "relationalism") and similarity</p>	<p>General approach, empirical study from services sector</p>	<p>No</p>	<p>Partially</p>
<p>Stahl (1996)</p>	<p>Relationship quality is "a customer state of readiness based on expectations and experiences which influences the activities of boundary role persons related to the objects and situations of a buyer-seller relationship"</p>	<p>The authors distinguished between the state of readiness, the customer's expectations and experiences as well as the influence on behaviour as "components" of relationship quality</p>	<p>Customer's satisfaction with single transaction episodes</p>	<p>General approach, focus is on business-to-business relationships</p>	<p>No</p>	<p>No</p>
<p>Storbacka, Strandvik, and Grönroos (1994)</p>	<p>None; a dynamic relationship quality perspective [links] together the concepts of service quality, customer satisfaction, relationship strength, relationship longevity and relationship profitability as well as related constructs"</p>	<p>No</p>	<p>No</p>	<p>Service relationships</p>	<p>No</p>	<p>No</p>

access additional product functions, and will therefore differ in terms of how they value the additional benefits of these "new" features. Nevertheless, we can expect that *an increase in customer skills will increase the customer's satisfaction with the product and (ceteris paribus) his or her product-related perception of quality (hypothesis Q1).*

Attribution theory tells us that the perceived source of the skills can also influence the consumer's assessment of product quality. The issue is whether the customer attributes the acquisition of new skills to himself, to the product manufacturer or to some third party, such as a newspaper or helpware. Given that customers do not just base their assessment of quality on the physical product itself, but also take associated services, such as product training or hotlines, into account (the "extended product" concept proposed by Kotler 1997), then it can be assumed that *the more an existing level of customer skills is attributed to the activities of the product manufacturer, the higher the assessment of product quality by the customer (hypothesis Q2).*

The Influence of Increased Customer Skills on Customer Trust

A relationship between the strategic communication of customer skills by the product manufacturer and the quality of the customer-manufacturer relationship can also be explained in terms of the trust dimension of relationship quality. Following the "competitive market signaling" concept (Eliashberg, Robertson, and Rymon 1995; Heil 1989), the strategic communication of customer skills by the product manufacturer can be understood as a market signal which shows the customer that the company is interested in a long-term relationship. In this sense, the communication of skills (provided the customer is not obliged to bear the full costs of the skills transfer) is an *investment* by the company in the customer. This investment indicates that the company trusts the customer and will itself in the future behave in a trustworthy way. The transfer of skills is a service undertaken by the company which contributes to the establishment of customer trust in that company (see Engel, Blackwell, and Miniard 1993, p. 311, for an example, and Cowles 1996 for a discussion of the reciprocal nature of the trust construct). The impact that this investment in customer skills has on the development of customer trust is not so much dependent on the level of skills thus imparted to the customer, but rather on the degree to which the customer *attributes* his acquisition of new skills to the investment made by the manufacturer. Accordingly we can assume that *the more an existing level of customer skills is attributed to the activities of the product manufacturer, then the greater the trust that the customer has in this manufacturer (hypothesis T).*

The Influence of Increased Customer Skills on the Customer's Commitment to the Relationship

It has not yet proved possible for scientists to reach a common understanding of commitment (Andaleeb 1996, p. 81) - the third dimension of relationship quality. Since we are analyzing the relationship between commitment and the communication of skills, it seems sensible to differentiate between the emotional

and the calculative components of this commitment². Emotional commitment is where the customer's attachment to the business concerned is focused on long-term co-operation and is based on feeling, rather than any rational consideration of the facts (Moorman, Despondé, and Zaltman 1993). Calculative commitment is based on those cost/benefit considerations which drive the immediate continuation of the customer-company relationship, such as sunk costs or the costs associated with a change of supplier.

The justification for a relationship between communication of customer skills and the emotional component of commitment is based on more or less the same arguments used above for the trust construct. Essentially, if the customer attributes his skills to the activities of the manufacturer, then this leads to an improvement in the emotional relationship of this customer to the manufacturer. It also causes this customer to feel a form of "internal loyalty obligation" with regard to future purchases. Accordingly, *the degree to which these skills are attributed to the manufacturers efforts has a positive influence on the level of emotional commitment which the customer feels toward the manufacturer (hypothesis c1).*

The degree of specificity of customer skills plays a key role in terms of the relationship between these customer skills and the calculative component of commitment. "Specific" skills are those originally gained for using a particular product and which cannot be applied to other products or brands manufactured by another company. The skills required when using or programming HEWLETT PACKARD pocket calculators are an excellent example of high skills specificity, since the operating instructions for these calculators are fundamentally different to those of any other calculator (requiring the so-called "reverse Polish notation," HEWLETT PACKARD 1997). If existing consumer skills are highly product-specific, then this is perceived by the customer as a constraint to changing products or manufacturer. If the customer was to purchase an alternative product or brand, then this would mean having to reacquire a set of skills he or she already possesses. Skill specificity can therefore also be seen as a refined example of Williamson's "human capital specificity" (Williamson 1987). We can therefore propose that *the higher the degree of specificity of customer skills, then the greater the degree of calculative commitment the customer has to the relationship with the manufacturer (hypothesis c2).*

Empirical Results

The remainder of this paper deals with an empirical study which tests the above hypotheses regarding the relationship between a strategic communication of customer skills and the quality of the relationship between customer and

² There is occasional mention in the literature of an additional behavioural component to commitment (Denize and Young 1995; Morgan and Hunt 1994; Brown, Lusch, and Nicholson 1995). This component has much in common with the customer retention construct and is therefore of little value in the context of this analysis.

manufacturer. As mentioned earlier, the customer skills concept can be expected to be extremely relevant to consumer electronics. The hypotheses were therefore tested using two product groups from this sector, namely video recorders and (reflex) cameras. A standardized, face-to-face questionnaire survey was carried out on 293 consumers in January and February 1997 in a city in northern Germany.³ 187 interviews dealt with video recorders and 106 with reflex cameras. Each construct was operationalised using 4 or 5-point rating scales and at least three different items. Customer skills levels were measured using 38 (video recorders) and 41 (reflex cameras) items respectively, thereby covering all components and phases of the skills construct. The actual parameters used in the survey were based on the results of a comprehensive pilot study.

A structural model was developed from the research hypotheses (see Figure 5) and tested using *structural equation modelling* (see Bagozzi 1980; Hoyle 1995). Confirmatory factor analysis was used to select the final parameters actually used to measure each construct (see e.g. Long 1983 for methodology). Skills attribution and skills specificity were operationalised using two (attribution) and three (specificity) items, respectively. The skills level was taken to be the sum of the 38 and 41 individual items. The trust dimension to relationship quality was measured using three items for both product groups. Product-related perception of quality was measured using two (video recorders) and three (reflex cameras) items. Each of the two commitment components was represented in a single parameter whose value was fixed at 1 for the analysis. The division of commitment into two components meant it was necessary to partially reformulate the proposed causal relationships between the individual dimensions of relationship quality. This was done using the defining statements made in the literature (Geyskens *et al.* 1996).

Model parameters were calculated using LISREL (Version 8) and the unweighted least squares algorithm (Jöreskog and Sörbom 1993). This algorithm was chosen because its application is not dependent on the distribution structure of the data involved and because it can also produce stable results from relatively small samples (as is the case in this study). Global and local goodness of fit indices indicate that the model fits the data well (see Figures 6a/b and the Appendix). The coefficients of determination for all items exceed the critical value of 0.4, with one exception, namely one of the parameters addressing perception of quality in the VCR case.

Causal analyses of both the VCR and reflex camera data confirm the proposed hypotheses regarding the relationship between customer skills and relationship quality. With one exception, all path coefficients are positive, significant and - in many cases - exceed the threshold level of 0.1 quite considerably. This exception is hypothesis c_1 (attribution of skills to the

³ In order to avoid statistical bias, interviewers attempted to draw on a representative sample of the general population. Nevertheless, the results showed that young students were over-represented in the results. However, this apparent bias is irrelevant to the proposed hypotheses test, especially given the relative underdevelopment of customer skills research.

manufacturer's efforts has a positive influence on the customer's emotional commitment to the manufacturer) in the reflex camera analysis. Accordingly, we can conclude that strategic communication of customer skills *does have relevance* for relationship marketing in both product groups.

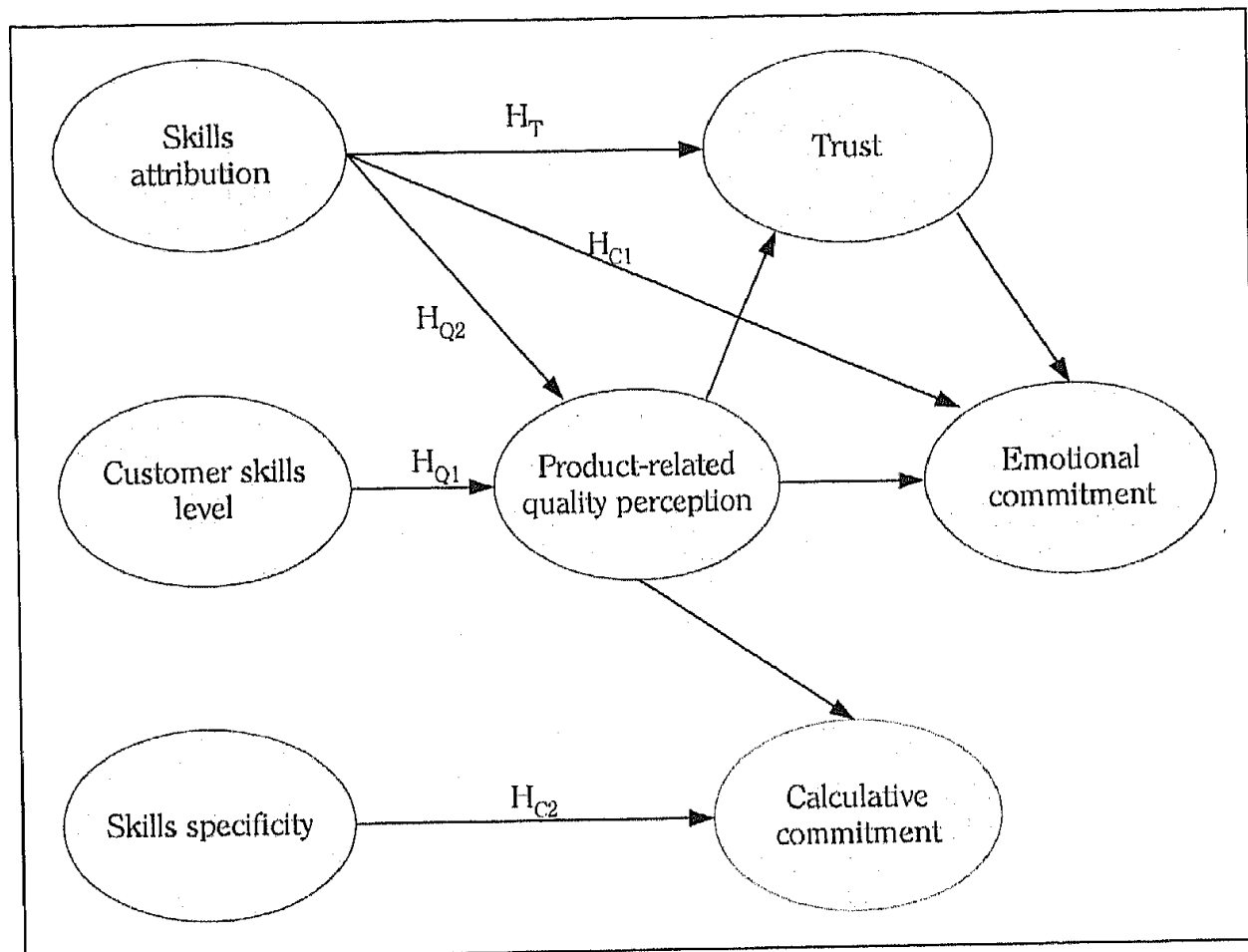


Figure 5: Structural Model and Associated Hypotheses Representing the Relationships between Customer Skills and Relationship Quality

The results also show that the nature of the increase in relationship quality attributable to skills communication is *product specific*. This is clear when we compare path coefficients within and between each product analysis (see Garbarino and Johnson 1999). These coefficient values are nearly always higher in the video recorder analysis, for example. Skill attribution is the largest contributor to an increase in relationship quality in the case of the video recorder, with coefficients of 0.47 and 0.37 to trust and product-related perception of quality respectively. Net skill levels play only a middle-ranking role here, with a coefficient of 0.23 with respect to the perception of quality dimension. In the reflex camera case, however, this net skill level is the main driver behind an increase in relationship quality, with an equivalent coefficient of 0.36 to product-related quality perception. There are also clear differences between the two products in terms of the importance of skills specificity, which is twice as important for calculative commitment in the case of video recorders (coefficient 0.45) than in the case of reflex cameras (coefficient 0.22).

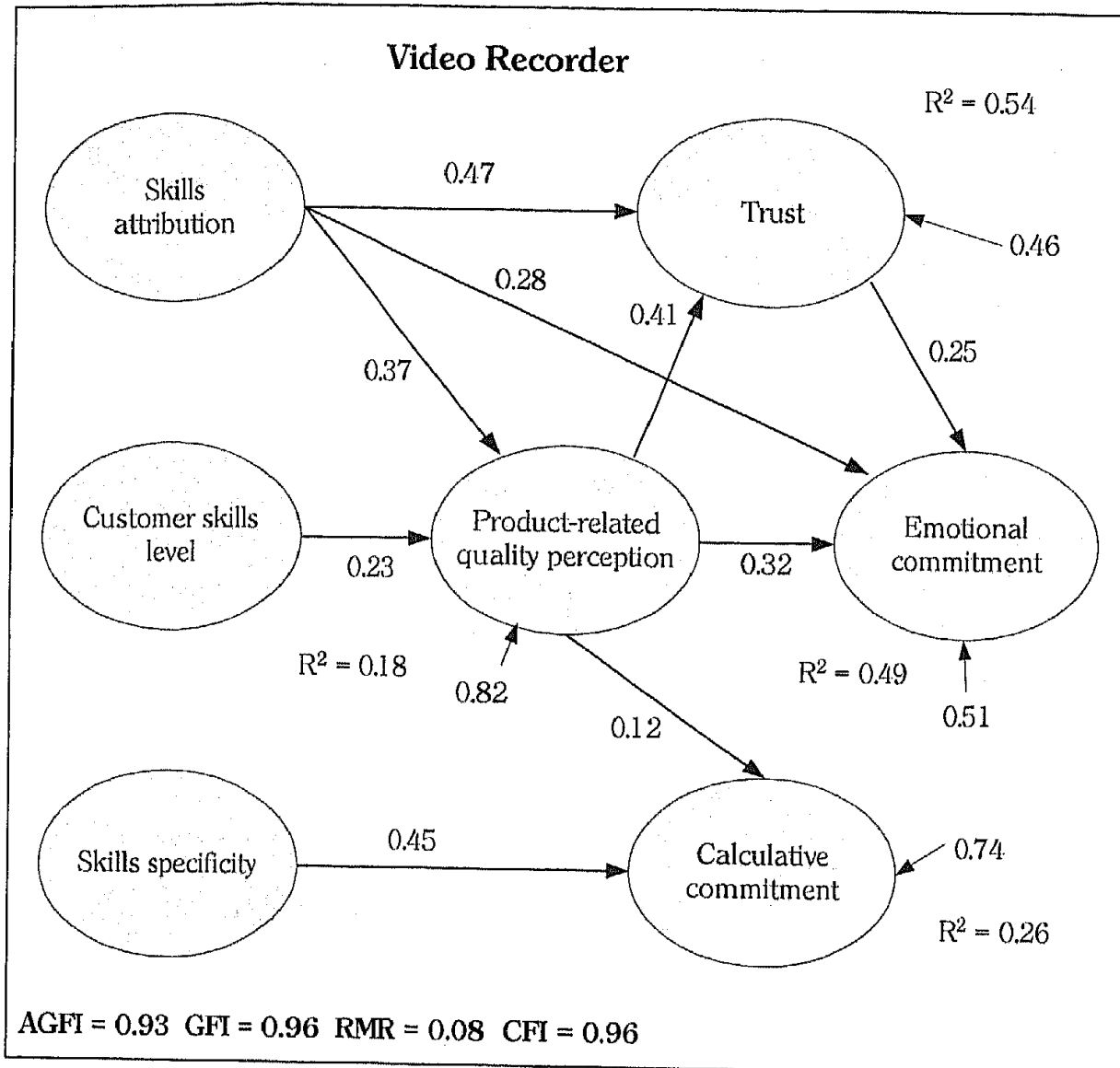


Figure 6a: Path Coefficients for VCRs

Discussion of Results and Some Steps Toward the Development of a Broader Perspective

The above results show how the different elements of a proactive effort by a company to communicate skills to customers have significant positive impacts on the quality of the relationship between this manufacturer and its customers. This suggests that there is some value in developing some kind of customer skills communication strategy, at least for the product groups studied here. However, a wider perspective needs to be taken, with proper account given to other factors of importance in determining the success of any systematic and proactive attempt to communicate customer skills. As well as considering the costs of such an initiative, due consideration also needs to be given to the relationship between relationship quality and customer retention. Various attempts have already been made to model the influence of increased customer retention on

financial measures of success, such as sales and profits. This allows us to make some observations on the likely profit implications of a customer skills communication strategy.

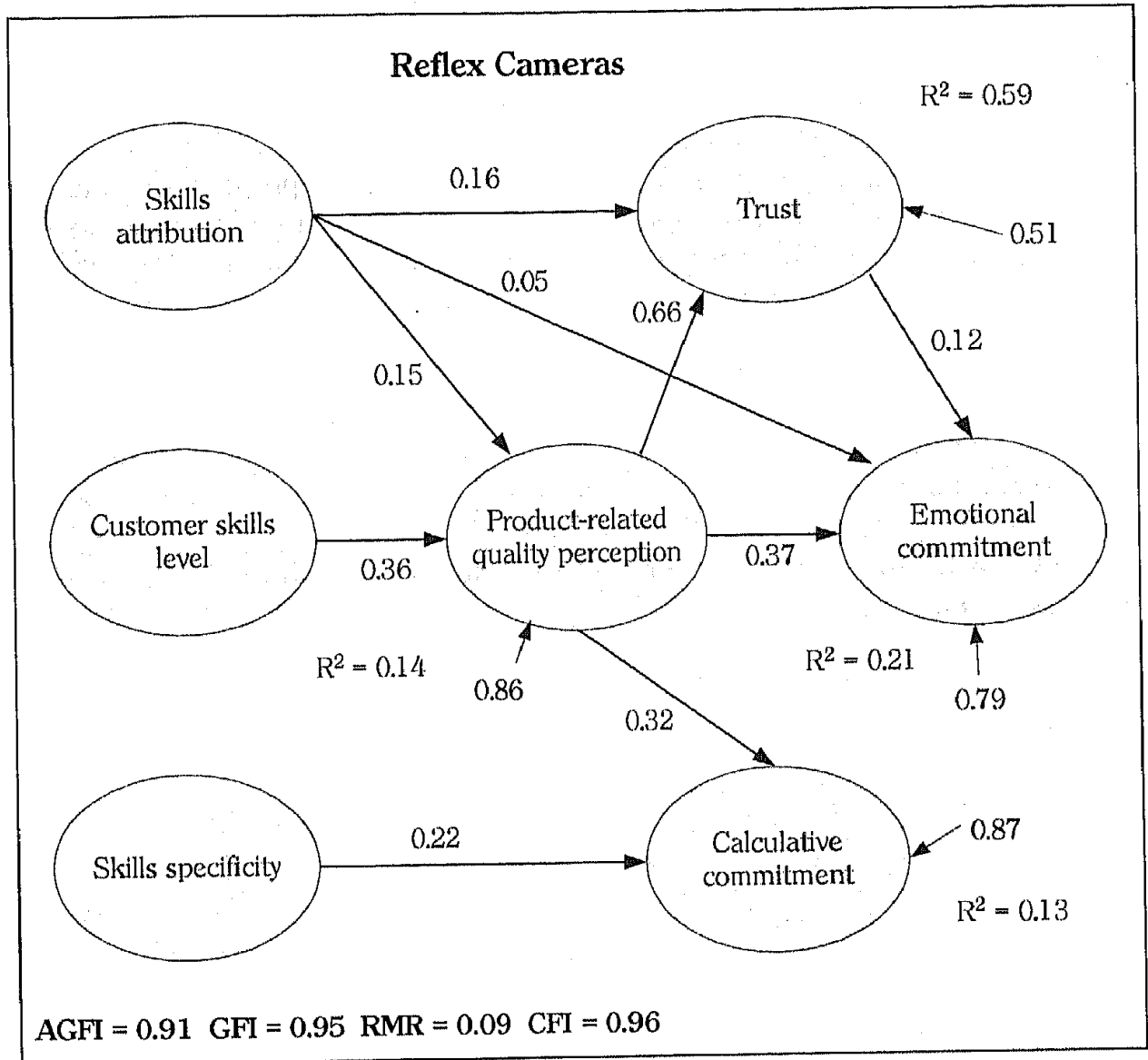


Figure 6b: Path Coefficients for Reflex Cameras

Customer Skills, Customer Retention, and Profitability.

In the product sectors studied, a strategic communication of customer skills has been shown to lead to an increase in relationship quality. If customer retention is the central objective of relationship marketing, then it is also necessary to calculate the degree of correlation between relationship quality and customer retention, in order to assess the impact of the skills communication on the latter. For the two product groups under consideration, further causal analysis showed that there is indeed a strong positive correlation between the

two (0.72 for video recorders and 0.78 for reflex cameras)⁴, thereby confirming available results.

In the survey, consumers were also asked directly about the potential impacts of a higher level of customer skills on their future purchasing behaviour (in terms of a repeat purchase of their current product or a change of brand). The answers given are presented in Table 3 and confirm that an increase in customer skills not only has a positive impact on relationship quality, but also on the overlying objective, namely customer retention. In the case of video recorders, just under 65% of respondents felt that an increase in their ability to properly operate the product would definitely, or at least probably, make them more likely to buy the same product again. The equivalent figure for reflex cameras was even higher (over 75%). The relatively high influence that skills level has on camera (re)purchasing behaviour matches the results of the causal analysis and indicates a strong level of convergence validity (Malhotra 1996, 307).

Table 3: Consumers' own Estimate of the Impact of an Increase in Skills on Customer Loyalty

"Would you be more likely to buy the product again if you were even more skilled at operating it?"		
	Video recorder	Reflex camera
Yes, this would definitely make me more likely to buy it again	16.0%	11.4%
Yes, this would probably make me more likely to buy it again	48.7%	63.8%
No, this would probably not make me more likely to buy it again	23.5%	20.0%
No, this would definitely not make me more likely to buy it again	11.8%	4.8%

Various studies have looked at the relationship between customer retention and business profitability. The work of Reichheld and Sasser (1990) in this respect has been widely reported. They found that customer retention led to profit gains

⁴ The operationalisation of the customer retention variable was undertaken using two items; "my next video recorder (or camera) will definitely be made by the same manufacturer as my current one" and "the manufacturer of my video recorder (or camera) can consider me the classic example of a loyal customer". The relationship quality construct was measured through six parameters relating to all the dimensions making up this construct. Using the AGFI criterion, the global goodness of fit of the model was 0.93 (video recorder) and 0.91 (reflex camera).

of between 25% and 85% as a result of cost reductions and revenue increases, but do not investigate the reasons for this large gap. The work undertaken by Payne (Payne and Rickard 1997; Payne and Frow 1997) allows us to draw out sector-related differences in the relationship between customer retention and profitability. These kinds of analyses should help a company decide on the fundamental usefulness of relationship marketing and should also precede any decisions concerning a skills communication initiative.

Costs of Customer Skills.

There are various types of costs associated with the strategic communication of skills to customers. As well as those costs directly incurred when implementing particular communication tools (e.g. developing interactive manuals, running telephone hotlines), there are also costs involved in the strategic planning and co-ordination processes that precede and accompany such measures. However, communication of customer skills usually has a beneficial effect on other costs. More appropriate use of products means lower repair costs in the guarantee period and fewer costs arising from complaints or compensation claims. The economic importance of such potential savings was illustrated in a study carried out by the WÜRTTEMBERGISCHE FEUERVERSICHERUNG, a German insurance company, which looked at 12,000 reports of damage to electronic products. The damage reported in almost half (46%) of the cases examined could be traced back to inappropriate use of the product by the consumer.

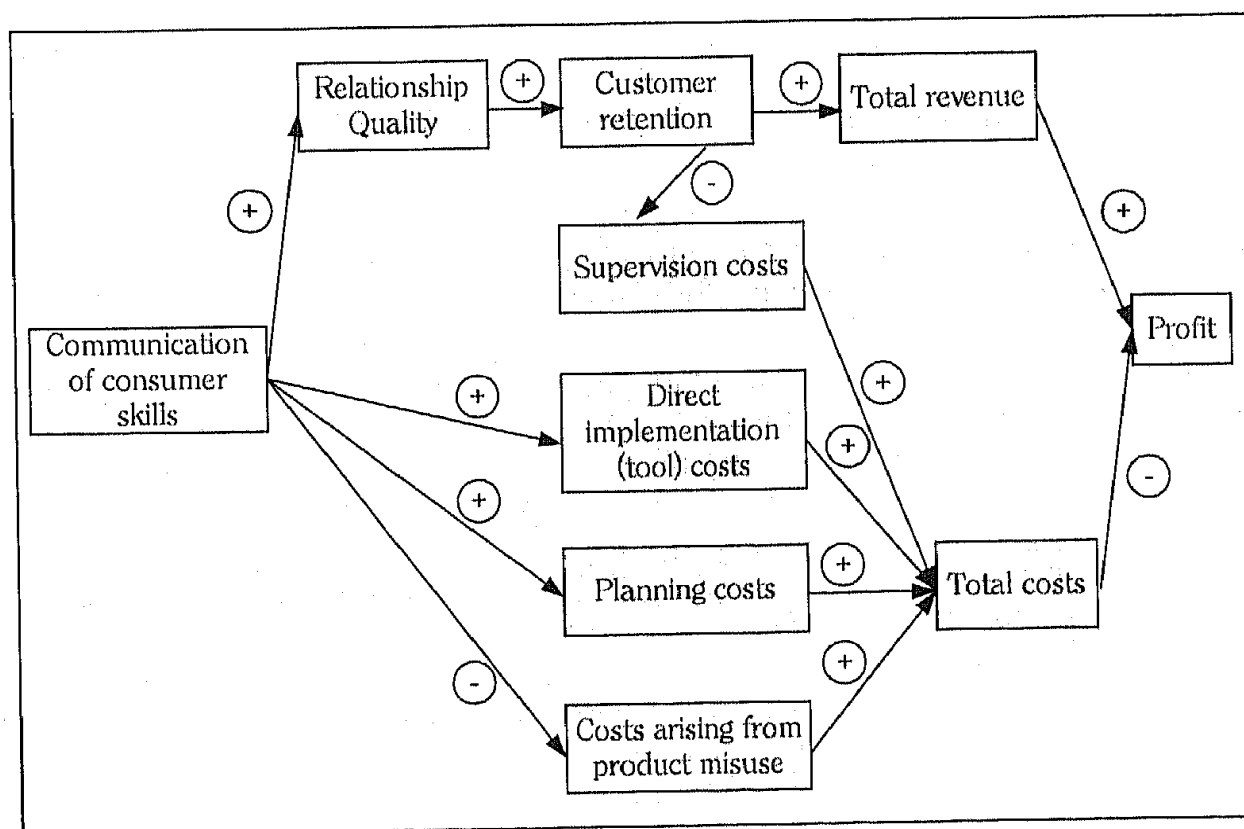


Figure 7: Relationships between the Communication of Customer Skills and the Success of the Company

The influence of a strategic communication of customer skills on business success is in effect a complex of positive and negative causal relationships, as illustrated in Figure 7. The final decision regarding the economic desirability of such a communication initiative should only be made following detailed consideration and analysis of these relationships.

Conclusions and Future Research Suggestions

The paper presented here has provided an overview of the customer skills construct. It has also described the theoretical background to the complex relationship between the communication of customer skills and the quality of the relationship between the manufacturers of consumer electronic products and their customers. Customer skills refers to the ability of the customer to capture the potential benefits of a product across the various phases of the post-purchase period. A survey-based study was then able to provide empirical confirmation of most of the proposed relationships in this context (for video recorders and reflex cameras). This study also made clear that the processes through which the communication of customer skills influences the various dimensions making up relationship quality can vary considerably between different product sectors. Consideration of further measures of business success also demonstrates that the relative usefulness of a customer skills communication strategy has to be determined on a case-by-case basis. The concepts and results presented also indicate that due consideration should be given to adding the customer skills construct to the system of variables used in relationship marketing.

If an improvement in customer skills is accepted as an objective of relationship marketing, then a number of outstanding research issues need to be tackled. Particular attention needs to be given to the *transferability* of research results obtained for a particular product or business sector. The first priority is to identify those businesses and markets where the communication of customer skills is of clear financial benefit. In this context, we also need to investigate the conditions and characteristics (in terms of product, customer, organization and cultural conditions) required for such a marketing strategy to be successful. If customer skills are to be drawn into the relationship marketing concept, then we need a deeper and more detailed understanding of the issues and factors involved. Some of the key aspects in this respect are the measurement of the customer skills construct, identification of appropriate communication strategies for different levels of management, and other issues concerning the quantification of the different (positive and negative) contributions which the communication of customer skills can make to business success. The results presented in this paper indicate that further research of an appropriate nature would be of both scientific and practical value.

Appendix: Model Parameters and Local Goodness-of-fit Indices**Skill Attribution Construct:**

"I more or less taught myself how to operate the product"; item reversed (v16)	0.42 (R^2_{VCR})	0.51 ($R^2_{\text{reflex camera}}$)
"The manufacturer must take the credit for anything I know (v18)	0.48	0.76

Skill Level Construct

Sum total of all individual customer skills across all areas and components (v108)	1.00*	1.00*
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Skills specificity construct:

"when changing product I have to learn how to use the thing all over again" (v44)	0.75	0.83
"learning to use product functions is a real investment" (v45)	0.52	0.67
"I can apply what I've learnt with this product to other products"; item reversed (v47)	0.60	0.47

Product-related perception of quality construct:

"I think the product is very good" (<i>absolute</i> assessment of quality) (v31)	0.75	0.47
"I think this product is better than most other products in this price category" (<i>relative</i> perception of quality) (v32)	0.33	0.49

Customer trust construct:

"The manufacturer seems trustworthy" (v33)	0.72	0.73
"The manufacturer has integrity" (v34)	0.68	0.80
"The manufacturer acts in my best interests" (v35)	0.48	0.94

Emotional commitment construct:

"I'll do anything for the product manufacturer" (v37)	1.00*	1.00*
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Calculative commitment construct:

"I'm tied, since a change of brand would cost time and money" (v38)	1.00*	1.00*
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* = Fixed value

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