

**CORVINUS UNIVERSITY OF BUDAPEST**

**CUSTOMER EVALUATION OF INDIVIDUAL AND  
ORGANISATIONAL BUYERS**

Characteristics of customers acquired through referrals and their impact  
on customer value in a business-to-business context

*Ph.D. Dissertation*

Edit Neumann-Bódi

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# Table of Contents

<b>1. Introduction .....</b>	<b>13</b>
<b>2. The overview of the literature of customer value management .....</b>	<b>17</b>
2.1. <i>The process of development of the value centred view in marketing .....</i>	17
2.2. <i>The marketing areas playing a role in the value centred view .....</i>	19
2.3. <i>The use of the concept of value values, equity in marketing .....</i>	22
2.4. <i>The presentation of customer value management.....</i>	28
2.5. <i>The relationship of customer value management with other concepts .....</i>	31
2.5.1. <i>The relationship of customer value and brand value .....</i>	31
2.5.2. <i>The connections between customer value customer satisfaction and loyalty .....</i>	33
2.5.3. <i>The value of business relationships in the networks, the interactive model of the IMP..</i>	36
2.5.4. <i>Customer value versus relationship value.....</i>	37
2.6. <i>The role of the customer value concept in the new economy .....</i>	39
2.7. <i>The possible contribution of customer value to a more environment conscious marketing ....</i>	41
<b>3. The analysis of the customer equity concepts .....</b>	<b>44</b>
3.1. <i>3E instead of 4P – value equity, brand equity, relationship equity .....</i>	44
3.1.1. <i>Customer equity increasing strategies in the concept of Rust, Lemon and Narayandas (2005).....</i>	45
3.2. <i>The „Return on Marketing“ model .....</i>	50
3.3. <i>Examination of the relationship between customer equity and shareholder value.....</i>	52
3.4. <i>Examining the relationship among of customer acquisition, retention and profitability.....</i>	54
3.4.1. <i>The relationship between customer retention and profitability .....</i>	56
3.4.2. <i>The effect of defection on the social relationship between customers .....</i>	58
3.4.3. <i>Presentation of the limits of the traditional customer equity concept.....</i>	60
3.4.4. <i>The role of exchange processes in customer evaluation .....</i>	67
3.4.5. <i>The relationship between social exchange theory and customer equity .....</i>	69
3.4.6. <i>Other influencing concepts for the empirical model.....</i>	72
<b>4. The grouping of the customer equity measurement models .....</b>	<b>73</b>
4.1. <i>The grouping of the customer equity models based on the function of the model.....</i>	73
4.2. <i>The grouping of the models based on the measurement unit.....</i>	75
4.3. <i>Grouping of the customer equity models based on the applied calculation method.....</i>	76
<b>5. The development milestones of the customer equity calculation models .....</b>	<b>78</b>
5.1. <i>The presentation of the concepts used when calculating customer .....</i>	78
5.2. <i>The general basic model of Berger and Nasr (1998).....</i>	81
5.3. <i>The model of Gupta and Lehmann (2003) meant for practical application .....</i>	82
5.4. <i>The calculation of customer segments in Blattberg et al.'s model (2001) .....</i>	83
5.5. <i>Building brand switching into the customer equity modelling .....</i>	84
5.6. <i>The problem of identifying the active customers.....</i>	86
5.7. <i>The connection between customer acquisition and customer retention.....</i>	87

<b>6. The extension of customer equity models with the effect of word of mouth advertising .....</b>	<b>88</b>
6.1. <i>The presentation and evaluation of the models created to define the value of recommendation.....</i>	90
<b>7. The presentation of the qualitative research .....</b>	<b>97</b>
7.1. <i>Theoretic framework model for the qualitative research (Figure 9. self edited) .....</i>	99
7.2. <i>The analytic presentation of the results of qualitative research .....</i>	101
<b>8. Quantitative research .....</b>	<b>107</b>
8.1. <i>The purpose of the research.....</i>	107
8.2. <i>Applied methodology.....</i>	108
8.3. <i>The sample and the characteristics of the sampling.....</i>	109
8.4. <i>The creation of the research model .....</i>	112
8.5. <i>The presentation of the variables used in the model .....</i>	118
8.5.1. <i>Satisfaction .....</i>	119
8.5.2. <i>Loyalty .....</i>	122
8.5.3. <i>Trust .....</i>	125
8.5.4. <i>Recommendation potential.....</i>	129
8.5.5. <i>Testing of scales in previous researches.....</i>	130
8.6. <i>The creation of research hypotheses with the analysis of the connections between the variables .....</i>	131
8.6.1. <i>Analysis of direct effects.....</i>	131
8.6.2. <i>The analysis of indirect effects.....</i>	135
8.6.3. <i>The methods used for the testing of the hypotheses .....</i>	140
8.7. <i>Handling missing data .....</i>	141
8.8. <i>The examination of the distribution of the variables .....</i>	142
8.9. <i>Explorative factor analysis and variance analysis.....</i>	143
8.10. <i>The validation of the measurement model for the application of the Structural Equation Modelling (SEM).....</i>	150
8.11. <i>The fulfilment of the quality criteria .....</i>	151
8.12. <i>The examination of the fit of the structural model .....</i>	158
8.13. <i>The presentation of the results of the structural model.....</i>	159
8.14. <i>The examination of the fit of the structural model to the Multi-Group-Analysis method (MGA).....</i>	162
8.15. <i>The presentation of the results of the structural MGA model .....</i>	165
8.15.1. <i>The effect of trust on the other variables.....</i>	168
8.15.2. <i>The effect of satisfaction on loyalty and the recommendation potential .....</i>	170
8.15.3. <i>The effect of loyalty on the recommendation potential .....</i>	170
8.15.4. <i>The summary of the MGA research results .....</i>	171
<b>9. The summary of the results of the empirical research .....</b>	<b>173</b>
9.1. <i>The summary of the results of the qualitative research.....</i>	173
9.2. <i>The summary of the results of the quantitative research .....</i>	176
9.2.1. <i>Explorative factor analysis and variance analysis.....</i>	176
9.2.3. <i>Structural Equation Modelling (SEM) and Multi Group Analysis (MGA).....</i>	177



9.2.4. Reflection in connection with the theoretical concepts used in the development of the model.....	180
9.2.5. The presentation of results which are important for practice based on the customer value concept .....	183
<b>10. Limitations and options for further research.....</b>	<b>187</b>
<b>11. Appendix .....</b>	<b>189</b>
11.1. <i>Tables and Calculations</i> .....	189
11.2. <i>Publications on the dissertation topic</i> .....	203
<b>12. Literature review.....</b>	<b>205</b>

## List of figures

Figure 1. The Structure of the Metamodel describing the Value of the Business Relationships .....	39
Figure 2. Connection between Customer Value and Relationship Value .....	40
Figure 3. The Impact of Customer Equity Management on Environment Centred View of Marketing .....	43
Figure 4. The Strategy Triangle .....	46
Figure 5. Return On Marketing (ROM) model .....	51
Figure 6. The Customer Asset Based Marketing Model .....	64
Figure 7. The Framework Model of Customer Equity Management .....	66
Figure 8. Conceptual Framework for Modeling CLV .....	75
Figure 9. Theoretic framework model for the qualitative research .....	100
Figure 10. The effect of the aim of the research on the company's profit .....	109
Figure 11. Combination of the two selected research models .....	116
Figure 12. Basic model of the quantitative research .....	117
Figure 13. The separation of the two dimensions of trust .....	128
Figure 14. Depiction of the hypotheses in the structural model .....	141
Figure 15. The separation of the two dimensions of loyalty.....	150
Figure 16. The development of the measurement model .....	155
Figure 17. The structural model .....	158
Figure 18. Presentation of effects (standardized regressive coefficients) in the structural model.....	160
Figure 19. Structural model for the Multi-Group-Analysis (MGA) method.....	165
Figure 20. Significant effects (standardized regressive coefficients) depicted in the groups examined in the structural model.....	168

## List of tables

Table 1. The Characteristics of the Qualitative Sample.....	98
Table 2. Testing of scales in the previous researches .....	130
Table 3. Summary of research hypotheses .....	139
Table 4. Result of KMO and Bartlett test .....	145
Table 5. Factor weight matrix post rotation .....	146
Table 6. The means and deviations of factor values .....	148
Table 7. Result of variance analysis (ANOVA) .....	148
Table 8. The result of the hypothesis test based on the variance analysis carried out on factors .....	149
Table 9. The Chronbach alpha indicators of the applied scales .....	152
Table 10. Composite Reliability (CR) and Average Variance Extracted (AVE) indicators .....	156
Table 11. The fit indices of the measurement model.....	157
Table 12. The fit indices of the structural model.....	159
Table 13. The strength and significance of the effects in the structural model.....	160
Table 14. The result of the hypothesis test carried out with the help of SEM .....	162
Table 15. The fit indices of the structural MGA model.....	164
Table 16. The presentation of the factor value mean in the case of customers who came with recommendation .....	166
Table 17. The strengths and significance of the effects in the two sub groups.....	167
Table 18. The result of the hypothesis test carried out with the help of SEM/MGA .....	173
Table 19. The strength and significance of the effects on the entire sample and the examined sub groups.....	178
Table 20. The summary of the result of the hypotheses tests .....	185



## **1. Introduction**

Under the term customer value orientation we mean the kind of view which re-ranks marketing's set of tools and places the relationship value between the company and the customer at the centre of the research. Its essence is that we regard the clients of the company as part of the company's assets, and interpret the value of the customer as the total of the cash assets and non-cash assets invested in the company (Bannock et al., 2003, Berger and Nasr, 1998, Blattberg and Deighton, 1996, Bolton et al., 2004, Dorsch and Carlson, 1996, Gupta, 2009, Gupta et al., 2006a, Gupta et al., 2004, Jain and Singh, 2002, Mulhern, 1999, Reinartz et al., 2004, Robert, 1989, Rust et al., 2004c, Zeithaml, 2000).

At the beginning the customer value calculation models contained the easily quantified past money movements, and later were expanded on the one part time-wise, and on the other part in the direction of more difficultly quantified factors. (Helm, 2003).

The calculations are made difficult by several uncertain factors. Only events which have taken place already can be calculated in an exact manner. The question is how we can make estimations in relation to future events in view of this, and how we can decrease the uncertainty of the prognoses. The calculability of the behaviour of the clients greatly depends on the characteristics of the given market, respectively the characteristics of the product/service, and what the relationship of the given customer is like with the company.

The characteristics of the customer-company relationship, the exposure of the factors which can be used for the as accurate as possible characterisation of the company are very important with regard to calculating the future behaviour of the customer, which is the basis for the customer value calculation and the customer value model. In principle, the technological and other conditions to get to know events which are now in the past are at our disposal. And we can model the occurrence of future events with the help of past data and other factors of influence. In addition to the continuous monitoring of customer data it is important to understand what motivates the customers, what factors are behind their behaviour, and only jointly are these two knowledge suitable to make predictions about the future.

The durability of the customer-company relationship or the estimation of the customer life span is a significant problem, and is one of the key questions of customer value calculation. (Gupta et al., 2006a). The better we can estimate how long the client will stay with the company, respectively in the event of defection with what chance he/she will return, the more exact calculation we are able to make. (Ganesh et al., 2000).

Following the calculation of the customer lifetime we have to estimate what other cash and other investments the client makes at the company in the calculated period, and what direct and indirect profits in total may the company gain from these. (Berger and Nasr, 1998).

It's obvious, that neither the existing nor the potential customers are of equal value to the company. Not only in the aspect of how often and to what value they make purchases, but also in their aspect of behavioural characteristics. A client who spends much and often is valued and paid attention to by the company. However, there are clients who regards himself/ herself as a „friend” of the company, spends little for some reason, but recommends the company to others (part of whom will also spend much and will also recommend the company), does not count as a valuable customer, is placed on the periphery and is not paid attention to in an adequate manner. (Kingshott, 2006, Wilson et al., 2010). Thus, the question arises as to what extent and depth it is worth for a company to deal with the evaluation of customers.

The segmentation methods are shaped by the information technology in the last decade, the direction of the development of segmentation methods is formed by some soft factors, which support the subjective decision making (Szűcs, 2008).

Let's imagine that all the existing clients of a company just disappear one day. The value of the company would be equal with the current value of its physical assets, its accumulated know-how, and the reputation previously garnered and made aware in the environment of the company through previous company communication and the value of the brand itself. From this cashable value without taking customer value into account would only mean the sale of physical assets, but even the value of this is influenced by how much a potential clientele would be able to invest in the company in a foreseeable time.

Thus when we talk about customer value, it does not mean anything other than the evaluation of events expected to happen in the future. These future events are strongly connected with the company's existing clientele and the potential in it, the customer retention and the new customer acquisition abilities of the company, and the behaviour of those circles which are concerned and are connected with the company.

**The aim of our research is to understand more exactly the operation of the set of tools of marketing through recommendation– which is one of the difficult to quantify factors of customer evaluation models.**

As a tool of measurement we use the customer value construction, which's analysis and application means the contribution of development to science. The practical significance of the research is provided by the fact that with the development of customer value evaluation we can get a more exact picture of how the company's particular clients, its certain segments or the entire clientele contribute to the return of the applied instruments, through this we can establish a direct connection between marketing activity and the achievement of the goals of the company.

With the continuous maximization of the customer value we can thus increase the profitability of the company. With the estimation of the particular „soft” elements of the customer value: e.g.: the estimation of reference, recommendation, innovation and information value etc. the opportunity is provided to make a more differentiated value based segmentation of the clientele, which in turn makes more exact target group definition possible. In the long term, the application of the customer value concept contributes to the development of the company's client portfolio.

We contain the theme of the research in a manner that we examine the customer value primarily from a marketing aspect, and we don't, or only by way of mention deal with company evaluation or other approaches. When processing the theoretical background of the theme we examine and compare the method of customer evaluation with regard to the individual and company customers. We restrict the empirical research to the business to business direction. We focus the empirical research on the increasing effect of recommendation from among the non-tangible elements of customer value.

The logical build-up of the thesis is as follows:

Chapters	The themes of the chapters	The research questions examined in connection with the theme
2.1, 2.2.	The role of the concept of value and its development in marketing	What does value based marketing thinking mean for marketing?
2.3, 2.4.	The demonstration of the concept of customer value and the customer value management	How does customer value management contribute to the development of marketing theory and practice?
2.5.	The connections of customer value management with other marketing concepts and areas	What is the relationship of the concept of customer value to other concepts? How can these concepts develop further with the help of the customer value concept?
3.	The examination of customer value concepts and models	How are the customer value models built up?
4, 5.	The comparison and grouping of customer value models	What are the shared characteristics of the concepts? How can they be grouped?
6.	The concept of word of mouth advertising in B2B direction	How can word of mouth advertising and recommendation be interpreted on the inter-company market and does its examination have relevance in this area?
6.1.	The effect of the taking into account of the recommendation in the customer value models	What researches have been carried out so far for integration of the recommendation into customer value models?
7.	Results of qualitative research	<p>What characterizes the concept of customer value, the application of models in practice in Hungary?</p> <p>What variables do the applied models contain?</p> <p>Does customer value play a role in segmentation and in the application of marketing's set of tools?</p>
8.	Results of quantitative research (B2B)	<p><b>Are the characteristics of the recommendations made by the customers worth integrating into the customer value concept?</b></p> <p>Is there a difference, and if yes, what is the difference between customers acquired with recommendation and the other customers?</p> <p>Do the customers acquired with recommendation tend to</p>



		recommend the company more, than customers who were acquired with other marketing tools?
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## **2. The overview of the literature of customer value management**

### **2.1. The process of development of the value centred view in marketing**

Despite the fact that since the 60's (Kotler, 1967) the main point of focus in marketing is on the customer, marketing theory and practice have only started to become customer centred in the past 40 years. Instead of the short term transaction-centred view the long term relationship view had come to the forefront. (Hakansson, 1980, Storbacka, 1997). Customer centred approach was actualized in concepts and measurement numbers such as customer satisfaction (Oliver, 1980), market orientation (Narver and Slater, 1990), and customer value (Bolton and Drew, 1991).

The value centred thinking of marketing experts was limited earlier to brand value only. In a few years' time customer value concepts became the centre of attention more and more. (Berger and Nasr, 1998, Mulhern, 1999, Reinartz and Kumar, 2000a).

The brand value, which originally was a product focussed concept, was transformed into a part of the customer brand concept (Blattberg and Deighton, 1996, Blattberg et al., 2001b, Rust et al., 2000). It would be a consequence of the development tendency then, that the role of the customer value concept increases in value for companies in comparison with the brand value, however, this is not what the present management practice shows us. Despite the fact that both researchers and practical experts emphasize the importance of the customer value concept, its effect is still limited with regard to companies and investors, it rarely reaches the level of strategic decisions. Gupta and Lehmann (Gupta and Lehmann, 2003) point out two main reasons for this, the first being that there is a need for a large, wide-range database and complex models to apply the concept, the second being that the researchers have not shown the strong relationship between the customers and the value of the company. Gupta and Lehmann show how it is possible to obtain the necessary information, to find the right model and create the connection between the customer value and the company value. They analyze how the calculation of customer value can contribute in the event of fusion or acquisition to the making of strategic

decisions and how it can be applied in the calculation of the company's value. They consider it important for the investors to see that the customer circle of the company is a valuable part of the capital. (Gupta and Lehmann, 2003).

The consequence of the switch from product-centred thinking to service centred thinking also requires the appropriate change of the strategy (Gale, 1994). The strategic options have to be viewed as the company's opportunity to develop customer value. Such previous measurement tools like brand loyalty, attitude, sales or market share data are not sufficient for us to show the return on marketing (abbr. ROM). Yoo has shown with the study of luxury car market (Yoo et al., 2005), that those marketing tools which increase sales and market share, may even harm long term profitability and the brand. Financial indicators like stock market price or aggregated profit do not solve this problem, due to lack of prognostic abilities. Aggregated market numeric data do not provide an opportunity to segment the client portfolio based on profitability either.

The idea to bring marketing activity in connection with the profitability of clients is not new. Sevin already developed a methodology back in 1965, with which's help he calculated the profitability of individual clients. He created functional cost groups for certain clients and he subtracted this from the annual profit of each client. (Sevin, 1965). Bell et al. examine the view according to which the customer part of the company capital and which has taken centre stage, as the evolution from brand centred marketing to customer centred marketing. They point out that the great number of point of purchase data collection and database technology make it possible to not only analyze the big company customers, but also the purchases of households and individuals, where the annual expenditure is low. The basis of the direct individual value calculation is the market identification of customers. The central element of the calculation is customer lifetime value (CLV), with which's help we can segment the customers and measure the marketing results based on the customer value. The yield of the marketing investment becomes measurable and thus the marketing function can directly be connected with market capitalization and the increase of shareholder value (Bell et al., 2002).

Today the view based on customer value orientation has been widely accepted, and its essence is that the customers are regarded as the asset or capital of the company. (Blattberg and Deighton, 1996, Blattberg et al., 2001b, Rust et al., 2000). The

literature of customer value calculation is also ever expanding (Berger and Nasr, 1998, Gupta et al., 2004, Jain and Singh, 2002, Mulhern, 1999, Reinartz and Kumar, 2000b, Rust et al., 2002).

However, the philosophy, that we shift the customer base from the less revenue bringing customers to the higher revenue bringing customers, can be more easily put into words in theory than it can be introduced in practice. Not treating the customers as equals has its dangers, and the limits and the risks of the prognosis of future cash flow also exist. The development tendencies and research results however show that the CE paradigm can become the leading paradigm of marketing management and it may influence the development of teaching and research methodology. In future we have to look upon the marketing resources as the long term investment into customer value, which creates value for the company and the shareholders. There is big pressure on the managers to make their activities quantifiable. From every investment they have to strive for the highest possible return. The nature and role of marketing is being re-thought within the companies.

## **2.2. The marketing areas playing a role in the value centred view**

The roots of the customer-centred approach have to be looked for in several overlapping research streams. In addition to relations marketing, the customer satisfaction which appears in the quality research of the service, and in connection with database-marketing the information-economy school, respectively the market value concepts directly appear, but the behavioural science, process, and situation-oriented marketing theory schools, along with the effects of the new institutionalist approaches cannot be ignored either. On their own, none of these areas are able to encompass those challenges, which the internal and external preferences within the transforming company mean to marketing.

Next we narrow the focus of analysis down to the factors considered to be most important by Hogan et al. We analyze the effect of brand value, direct marketing , service quality and the marketing effect of the relationship from the aspect of the development of its contribution to value centred approach (Hogan et al., 2002a).

Brand management and brand value concept have played a great role in product and service marketing, and drew an ever bigger interest in the B2B sector as well. Such measurement models have been established in this area which quantifies the value of

the brand as measurable capital, which comprises part of the evaluation of the company. However, brand value has developed initially in connection with the product and thus it under-represents the role of the customer, and does this all the more so in the case of a multibrand company. (Ambler et al., 2002). As most of the customers have in the large part been „anonymous” in the 20th century, the conciliation of the efficacy of demand and supply was not effective on most mass markets, despite the fact that the product was associated with the brand. The contribution of value brand to customer value management is connected primarily with the establishment and development of the relationship between the customer and the company. The shift from product and market management (transactional marketing) to customer centred approach (relationship marketing) does not mean that the former should not be important. Customer centred approach makes it possible that the willed effects of marketing tools be quantifiable. CEM suggests the kind of new resource allocation role of marketing in the interest of maximizing customer capital. This means the extension of the marketing area within the company, in which's interest the company integrates all its activities in the interest of the increase of customer value.

In the United States they have begun registering the address and service use of the customers in the area of long distance telecommunication, which provided the opportunity for direct marketing. With reduction of the costs of the uptake of data and registration, more and more companies could afford to identify their customers, and their habits as well to a lesser extent. The catalogue mail business branch became a pioneer in the effective development of promotions based on customer history (Petrisson et al., 1997).

After the establishment of Abacus Alliance, more than a thousand seemingly competing companies have created a customer data base which contained the data and customer history of the households on an industrial branch level. These were then followed in a row by other industry branches as well.

The literature and the application of direct marketing in practice have greatly contributed to the development of customer value management. Direct marketing was the first place where exact information was collected about customer behaviour. They were the first to use certain statistical techniques for the prognosis of the effect of marketing communication and refined behaviour based market segmentation.

They were also first to use CLV as the basis for developing marketing strategy. This area however has its own limits, which makes it impossible for it to become the basis for the new marketing paradigm.

The focus of direct marketing has always remained at the operational level, and did not care about such strategic topics as positioning, risk, changing customer preferences, or customer centred wider-ranging approach. Direct marketing was based on communication and customer response, but did not cover such areas as pricing, product quality or customer service. It deals strongly with the optimization of individual transactions, not with the maximization of the whole of the relationship as a value. (Blattberg, 1987, Dwyer, 1987, Lambert, 1987).

One of the theoretical bases of value centred marketing is the Neo-classical approach which's central concept is usefulness. According to this the customer spends his/her income, in a manner that the satisfaction gained from the products is maximal (Bowman and Ambrosini, 2000). The research of customer satisfaction and service provision quality has contributed significantly to the understanding of the relationship between service provision quality and customer profitability. (Anderson et al., 1994, Heskett et al., 1994, Rust et al., 1995a). This direction of research primarily focuses on individual customers, and has exposed such causality connections as service provision quality and the different components of CLV for instance the connection between customer retention. From the aspect of measurement significant are multiple item scales such as the SERVQUAL (Parasuraman et al., 1991, Parasuraman et al., 1985, Parasuraman et al., 1988) and the Profit Impact of Market Strategy (Buzzell and Gale, 1987). The criticism about the theory of the models which are based on the dominant „expectancy/disconfirmation” is that the customers do not relate the value judgement of the product to the expectancy, but to values and desires.

According to others its not the product values which would have to be measured at the time of disconfirmation research, but the emotional factors.

The biggest result of customer satisfaction and service provision measurements is that explicit measurement tools have been developed with regard to the effect the company's range has on customers. Through the examination of customer satisfaction and the provision of service quality we were able to expose, that how

several dimensions of customer service, as an important marketing function can contribute to customer value and ownership value. However relatively narrow focus has taken less into account the other elements of marketing-mix, such as product, communication, channel. Only a few tests have been carried out regarding the effect of the price. The main contribution of the literature of service quality is the understanding of the relationship between various elements of customer management, customer satisfaction, customer profitability, such as customer retention. For the deeper understanding of the relationship between the whole of marketing-mix and customer profitability further analysis is needed.

Business-to-business relationship was the area which first regarded the relationship with the customer as the strategic capital of the company. (Hakansson, 1982, Hunt and Morgan, 1995, Jackson, 1986, Srivastava et al., 1998). Research in this field has outlined and identified the process of the development of relationships and the main components of their long-time retention. A research school of development has formed in the direction of interpersonal models, which deals with such central concepts as trust, connection, and shared values (Brodie et al., 2002). This school of research often came to the conclusion that all relationships lead to long term commitments, and they did not take into account the fact that from the aspect of the company not every connection is desirable. For the examination of the interpersonal relationship models are needed which optimize the company strategy, balancing the relationship level and profitability expected by the client.

### **2.3. The use of the concept of value values, equity in marketing**

The meaning of marketing differs in particular sciences, even within the same scientific field there are significant differences regarding the interpretation of value.

Mandják examines the concept of value in an economic, social and social-psychological sense too, and ascertains that value is in every case perceived, and depends on the decision made by the individual or the group. It influences the behaviour of the group or the individual in a basic manner, on the other hand it can also be regarded as a historical, and sociological category. Value is in the one part usefulness and on the other hand the definer and the compass of behaviour. Its usefulness aspect can be regarded as the economic component of the concept, and its compass-likeness as the sociological component of the concept. So we can interpret

value as a complex kind of phenomenon, which comprises of economic and social elements, and which is perceived in all cases, so it is subjective. At the same time the value always depends on the given social and economic situation, and in this relation it is socially construed and internalized through the individual. On the various levels of society: individual, group, society value means different things and it presents itself differently (Mandják, 2002).

The application of terms connected to value are very diverse in marketing and the fact that the Hungarian translations of certain terms differ also, just make interpretation even more difficult. Starting out from English language marketing literature we have to make a difference between the uses of the concepts of singular (value) and plural (values). While the interpretation of value is judgement based on preference, values refer to those factors on which these judgements are based (Holbrook 1994).

Value and trade-offs are the results of transactions between the company and the customer which is based on preferences. These preferences or experiences in connection with the consumption of the product or the use of the service are influenced by the values of the consumers. These values are deep-seated and lasting beliefs (Rokeach, 1975), which's research fields are primarily sociology, psychology and consumer behaviour.

The perceived value can be interpreted as the narrowing down of the value given by the company to the customer. Taking Woodruff's definition as a basis, the perceived value of the customers are those product characteristics, service characteristics and consequences which the customer experiences during use of the product while reaching the customer's aim and will (Woodruff, 1997). Woodruff collected the most important elements into a hierarchy model. In connection with the concept another important thing is the theory of the trade-off of perceived profits and casualties (Ravald and Grönroos, 1996).

Casualties contain all costs and risks which arise during the course of the purchase, and several physical and service characteristics of the profits. The concept of perceived value contributes to the development of marketing thinking by connecting the desired product characteristics, the company performance with the demands arising from use and with the aims and wills of the customers.

Zeithaml has defined the value given to the customer by the company in the following manner (Zeithaml, 1988): low price, meeting expectations, quality, everything that the customer gets in return for his/her money from the company. From Zeithaml's work we can get a deeper understanding of the relationship between price, perceived quality and value. Its limitation is, that it only takes individual customers into account, it does not deal with the whole of the company, and the business to business references.

Thus the success of the company can depend on the extent of its ability its able to pass on its values to the customers. The aim of the value creation process is to find the connection between the value created for the customer, the company profitability, performance and the competitive advantage. The establishment of customer centred company culture is important and so is the strengthening of those core competences which create added value for the customer (Slater and Narver, 1994). Gale defines four main steps in the management of the values given to the customers (Gale, 1994): these are adequate quality, customer satisfaction, the quality and value perceived by the market compared to the competitors, and the customer value management. It shows how the quality which exceeds the competitors' is connected with the improvement of competitiveness. However, Naumann emphasizes that product quality in itself is not enough for survival, customer value better than that of the competition needs to be passed down (Naumann et al., 1995). It creates the customer value triad which product contains quality, the quality of service and value based pricing. This theoretical concept also emphasizes the role of the company's customers in value creation.

Uлага et al. have examined the perceived value in the inter-organizational relation from the aspect of the customer, and concluded that with the differentiation of key suppliers price and quality played the least important role (these are all factors which are expected from all the subcontractors) instead, professional support and personal relationship were the most important factors (Uлага and Eggert, 2006).

In their article written in 2001 Payne and Holt (Payne and Holt, 2001) we can find a wide scope of literature overview on concepts connected to value, which the authors place around nine categories. They list the categories into three major other groups these are: key influences, recent perspectives of value, and newer developments. This



systematic approach shows a possible framework of thinking for approaching the concept of value.

*The most important influencing factors:*

1. Consumer values and consumer value  
(Psychology, Consumer behaviour, Marketing)
2. Expanded product concept (Marketing)
3. Customer satisfaction and quality (Product and Service Marketing)
4. Value chain (literature of company strategy)

The topical interpretations of the concept of value:

5. Creating and delivering superior customer value
6. Value of the customer
7. Customer perceived value

Newest concepts:

8. Customer value and shareholder value
9. Relationship value

The concept provides a useable theoretical framework for the interpretation of the concept of value from the aspect of marketing. Its discrepancy is, that the build-up of the categories is not unanimously supported. In the first category the values get blurred with the influencing factors, the contribution of the influencing factors to the development of the concept of value is not wholly exact. Interpretation is further made difficult by the blurring of the dimensions of content and time.

Next, we continue the analysis with the further break-down of the concept of value which is established as a result of the relationship between the customer and the company in the above theoretical framework, the value of the customer for the company which can be found between (item 6) and the newer concepts (items 8. and 9.)

A shift occurred towards focussing on the characteristics and profitability of the special client groups from the general point of view in the Eighties. The development of a relationship and customer retention became more important. (Reichheld et al., 1996, Storbacka et al., 1994).

As a result of this measuring tools have been established pertaining to the value which the customers meant to the company. Marketing literature started to use the term equity to express concepts like brand, customers, channels and others concepts as well. According to Doyle, with the introduction of equity into the concept of marketing, the relationship between marketing activity and customer value was established. (Doyle, 2000b).

From the interpretation of customers as the asset of the company, the concept of customer equity was established, hereafter translated as „vevőérték” (customer value) into Hungarian by us. (Blattberg and Deighton, 1996, Blattberg et al., 2001b, Dorsch and Carlson, 1996, Rust et al., 2000, Pitt et al., 2000).

This interpretation of customer value is the main focus of the theme of our research, which thus deals not with the value passed on to the customers by the company, but with the value which the customer means to the company. This latter can be regarded as a kind of output of the value creation process, in its focus is not on the value created for the customer, but the output, which the company creates for itself with the help of the value it creates for the customer. CLV stands in its centre, and one of the most important concepts associated with it is customer retention.

With the strengthening of the establishment of the customer centred marketing view the concept of relationship value gained a reason for existence. The development of an ever wider range of value view was necessary, which takes into account other role players besides the customer in the value creation process. Wilson and Jantrania were the first who have written down the dimensions of relationship value explicitly: these are economic, strategic and behavioural dimension which contain further sub-dimensions. (Wilson and Jantrania, 1996). They have come to the conclusion that any kind of relationship creates some kind of value for both partners, and sharing this is a central element from the aspect of the life of the relationship. The relationship itself can also have an influence on the total value received through the customer. (Ravald and Grönroos, 1996).

Hereafter value cannot be regarded as part of an individual transaction, it is generated continuously and changes through time, and it is influenced by external factors such as other stakeholders for example. Gummesson’s total relationship

marketing concept also stresses the long-term relationship which goes beyond sciences and boundaries. (Gummesson, 1999).

The authors who deal with business relationship value also use the concept in a rather diverse way (Mandják, 2002). Value appears as an advantage (Anderson and Narus, 1998), or as a perceived advantage, the difference between the perceived advantages and the estimated expenses (casualties) (Ravald and Grönroos, 1996), while other authors regard as value that which contributes to the increase in performance (Walter et al., 2001). There is also an approach which identifies the value of business relationship with its profit generating ability (Holm et al., 1999).

The value of the business relationship has an important motivational role, as it is the reason why the role players establish a relationship. The basic condition for the establishment and the maintenance of the relationship is for it to mean some kind of value to both parties. The values are to be interpreted according to the own interpretation and perception of the role players, and as a result, they can differ both subject and significance wise. The business relationship is on the one part a value creating process, and on the other part it ensures the division of the values between the partners as well (Mandják, 2002).

The organizations get into a business relationship with each other, in order to be able to use their own resources more economically and to gain access to part of the advantages created by the other parties' resources (. The business relationship is important for the partners because through the relationship they can either increase their revenues, or decrease their costs. This is why the organizations take on the (lasting) investments and the adaptations that go with them. (Ford, 1985). In Wilson's opinion the business relationship is value creating in the sense that the competitiveness of the parties involved in the relationship increases. (Wilson and Jantrania, 1996).

The customer value, shareholder value, employee value and relationship marketing are closely connected and can be regarded as part of an ever wider value process. Several researchers involved in relationship marketing have developed models for the expansion of marketing which includes the relationship with the stakeholders or the various market domains. Christopher's model for example defines six market domains (Christopher, 1996). This model provides a suitable framework for us to have an overview of the entire company process of value creation within an

expanded circle of stakeholders, both in business to business (B2B) and business to customer (B2C) terms. Such markets of key importance are included in the model, which significantly contribute to the market efficacy of the company. The most important stakeholders in the model are the customers.

It is very important for every company to be able to increase the ownership value. It is widely accepted that customer value creates ownership value, however, Cleland and Bruno stress that customer value is a necessary, but not sufficient condition for creating ownership value. (Cleland and Bruno, 1997). According to Payne and Holt the two have to be managed together, focussing only on one of the two leads to distortion in the long term. They regard as necessary the empirical examination of the two concepts in various markets in the future, with the possible involvement of the employees and the possible contribution of the internal processes. (Payne and Holt, 2001). According to Doyle, there is a need for a new value based marketing thinking which connects marketing activity more strongly with the ownership value. For this a closer connection of financial and marketing concepts is needed. (Doyle, 2000a).

Brodie et al. reason that there is a need for a comprehensive theory, which integrates and encompasses brand, customer value and channel value, and the concept of „marketplace equity” which would separate the values created by marketing from the values created by other areas would be suitable for this. The problem however is, that the particular areas are difficult to separate from each other (e.g.: relationship marketing, relationship management) (Brodie et al., 2002).

After the overview of the literature it can be concluded, that value is a broader theme scope than the extent to which literature deals with it, and a comprehensive theoretical framework would need to be developed, which integrates the research of value in a consistent manner. The examination of the integration of the relationship marketing and those concerned would be important from the aspect of value creating view. Value measurement in a wider direction may become an important and useful area of research in the future.

#### **2.4. The presentation of customer value management**

One of the most important task of the marketing manager is to choose well from the various sets of tools of marketing (Kotler, 1973). Thus, the question arises, as to how

the various alternatives can be compared. Generally marketing managers rely on their experience and intuition. At the time of making the decision, in addition to the advantages and disadvantages of the particular set of marketing tools, several factors of strategic style also have to be weighed, for example, the acquisition of clients in a particular situation. Customer value management helps the managers to make the decision where the focus on resources should be placed in the interest of more efficient appropriation, so the expenses of the company can be reduced, and profit can be increased in the long term. Previously the effect of marketing tools was not quantifiable, their effect could not be shown exactly, so marketing had no influence on top marketing within the company. The measurement of customer value makes the company financially predictable. This has a significant effect on the marketing function within the company, and on the entire operation of the company.

The growing interest in marketing for the value centred approaches, increasingly drew the attention to the approach based on return calculation (Fellman, 1999). But due to the necessity of the data at disposal retrospectively, the application of these models in marketing is rare. Those dealing with marketing often regarded costs as short term expenses instead of a long term financial investment. The leading marketing companies regarded this program so significant, that the Marketing Science Institute 2002-2004-re named the measurement of the effectiveness of marketing activities as the most important priority for 2002-2004. (Rust et al., 2004a).

As on the market companies are evaluated based on their financial results, they need strategic tools which connect the endeavours connected with customer management into the financial elements which are strongly customer-centred, but do not disregard the importance of brand, product, price, channel competition and information technology either. Successful service means, that the customer is familiar to us, that we are able to follow the cycles of the customer life span, and to this end the management of customer relations is essential. The essence of successful customer management is that the company introduces such kind of marketing actions which provide the highest return on investment (abbrev. ROI) (Rust et al., 2004a).

In all developed economies service noticeably comes to the forefront as opposed to the products. Even manufacturing companies experience that a significant part of the profit comes not from the product but the service connected with the product. Several

publications deal in marketing literature with those economic processes and shifts which can be observed from product towards service, from transaction to relationship marketing (Anderson et al., 1997). These developmental tendencies are the background behind concepts of customer relationship management abbr. CRM and customer equity management abbrev. CEM)

As a result of all these tendencies value has become the milestone of the relationship between company and customer. An essential element of value based marketing strategy is customer equity<sup>1</sup> (customer equity, abbrev. CE). Customer value offers a tool with which the effect of certain set of marketing values can be evaluated, even prior to their introduction. Its continuous measurement is important in order to be able to follow the change in the demands of customers, and understand the behaviour of competitors on the market. (Berger and Nasr, 1998).

Today there is consensus in literature in the question that customers are to be regarded as important assets of the company who have to be valued and managed. (Berger and Nasr, 1998, Blattberg and Deighton, 1996, Blattberg et al., 2001b, Bolton and Drew, 1991, Doyle, 2000a, Hakansson, 1980, Kotler, 1967, Mulhern, 1999, Narver and Slater, 1990, Oliver, 1980, Parasuraman, 1997, Reinartz and Kumar, 2000b, Rekettye, 2004, Rust et al., 2004b, Storbacka, 1997).

When defining the concept of customer value management we take as basis the generally prevalent definition of Blattberg et al. (Blattberg et al., 2001b) according to which, by customer value management we mean such a dynamic, integrated marketing system, which uses data and applies financial evaluation techniques with the aim to optimise the customer recruits, customer retention, and sales maximizing the value derived for the company from the customer lifespan. The basic principle of CEM is that the customer must be regarded as a financial capital which the organization has to manage, measure and maximize, similarly to other capital goods. CEM means more than just the modellization and calculation, what it means is a complete marketing system.

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<sup>1</sup> The Hungarian equivalent of customer equity can be found in several ways in literature: vevőérték (customer value) vevőtőke (customer capital), ügyfélérték (client value) ügyféltőke(client capital) (see definition in chapter 3.1)

The customer value concept enables us to measure the return on marketing actions, and this not only makes marketing's operation more effective, but it also places a bigger emphasis on its role (Rust et al., 2004b).

## **2.5. The relationship of customer value management with other concepts**

### **2.5.1. The relationship of customer value and brand value**

The concept of brand value first appeared in 1980 in marketing literature. The people working in the advertising business placed the emphasis on short term results and decreased the investment in brand advertising continuously. (Hayes and Abernathy, 1980). In order to convince the senior managers about the long term value increasing effect of brand advertising and other sets of marketing tools, they started to emphasize the importance of financial measures in connection with these investments. Thus the concept of brand value was created for long term use by the customers, and for the expression of the value of use. It became clear that in this field the creation of concepts is needed, however, the emphasis was placed on the understanding of brand royalty, and the financial concerns which occurred due to its increase. Brand value developed simultaneously with the big unification and buy up wave of the 80's, when it surfaced that the value of the brands was reflected to a great extent in the price which was paid for the company. These transactions made it clear, that brand is one of the most important intangible assets of the company. At the end of the 1980's MSI highlighted brand value as research priority, and as a result, several publications were born on the topic. The literature related to the topic is synthesized (Brodie et al., 2002), who elaborate on and compare the various aspects of brand value in detail.

In the 90's several set of tools were developed which were suitable for measuring brand value. In Keller's model created in 1993 customer value stems from the knowledge which the customer acquired about the brand. (Keller, 1993). Knowledge consists not of facts, but it contains every thought, emotion, perception and memory which develops in the customer as a result of the marketing tools. Aaker defined five categories from which the value of the brand can be derived: brand loyalty, brand consciousness, perceived quality, brand association, other ownership capital e.g.: patenting, trade mark (Aaker, 1995) .

Let's compare Keller's model (Keller, 1993) with that of the (Rust et al., 2000) and Blattberg (Blattberg et al., 2001) type of customer value model. Rust et al. created three dimensions of customer value: product value, brand value, relationship value. Blattberg et al. have created a kind of thought framework which contains the associations between customer preference, image, customer retention and the allure of the brand. These models differ from the brand value models in that they are limited to the end user. So they don't deal with the interaction between customer and seller, their relationship and the network of brands. In Rust's definition brand value is part of the customer value and it expresses the subjective emotional relationship of the customer with the brand. The perceived value and loyalty however, is not contained in the model, thus it is more restricted than for example Keller's consumer based brand equity model.

Leone et al (Leone et al., 2006) stress the importance of the role of brand consciousness and brand image. The brand value measurement models are divided into two groups: direct and indirect models. Indirect models evaluate the possible resources of the brand value, identifying the knowledge of the customers in connection with the brand. The direct model directly measures the topical effect of the knowledge about the brand on the answers given by the customers, in relation to the various elements of the marketing program.

Both customer value and brand value have become the centre of attention in the field of marketing lately, but researchers have dealt little with the relationship of the two. Customer value and brand value have several areas in common, both stress the importance of loyalty for example. In the interest of optimal marketing strategy both concepts are worth taking into consideration.

The most important difference between the two approaches is that the emphasis is on financial value in the case of customer value, on the quantification of the financial performance. It does not take into account the important advantages of brand building, it is weak in the aspect of those marketing tasks, which are connected with the channel and the management of competitors (Leone et al., 2006). It takes the effects of social network word of mouth and recommendations into account to a lesser extent. It is less prescriptive regarding special marketing offers, besides making general recommendations for customer acquisition, retention and cross-selling. Brand value has an important role in the management of the channels and the



competitors, the emphasis is bigger on the brand management strategy, on the development of brand awareness and image. More practical guidance is provided in connection with special marketing offers, however, it is less suitable for the segmentation of customers. In case the company also uses tradition and direct channels, customer value and brand value complement each other and do not compete with each other. The matrix can be an illustrative solution for connecting the two concepts, where the brands represent the rows and the customer brands represent the columns.

Customer value and brand value can work without each other too, however, both are equally important for the company. There is no brand without the customer and there is no customer without the brand. The brand attracts the customer to the company who is the driving force behind the profit, which creates the financial basis of the brand value.

### **2.5.2. The connections between customer value customer satisfaction and loyalty**

From the 1960's the customer oriented point of view entered the focus of marketing A (Drucker, 1958, Kotler, 1967, Lewitt, 1960), then in the 1980's the direction of marketing turned towards relationship marketing both in theory and in practice (Morgan and Hunt, 1994). The development and maintenance of the long term relationship with the customers is what stands in the focus of relationship marketing, which's aim is the creation of customer value surplus and customer satisfaction, instead of the creation of the simple series of individual transactions.

There is consensus in literature with regard to the fact that relationship marketing is one of the key factors of modern marketing science (Gummesson, 1999, Hunt et al., 2006, Hunt and Morgan, 1994, Kumar et al., 2009, Morgan and Shelby, 1994, Sheth and Atul, 1995). Value creation and within this customer value creation took centre stage, and became the source of competitive advantage more and more (Woodruff, 1997) however, most essays on value focussed exclusively on the customer as the main stakeholder. A characteristic of relationship marketing is, that it does not just focus on the customer, but extends this multiple stakeholder view of relationship marketing to the other important stakeholders as well. (Christopher, 1996, Doyle,

2000b, Gummesson, 1999, Kumar et al., 2009, Morgan and Hunt, 1994, Naude and Buttle, 2000).

Buttle identifies four kinds of groups which have to be taken into account, these are the suppliers, the lateral relationships (competitors, government) internal relationships (business units, employees and the customers (Buttle, 1996).

Gummesson stressed that it is not enough to focus on the company-customer relationship, it is important to understand and manage the network of relationships and interactions. Gummesson examines how these relationships create value for the company and developed a framework in connection with the return on these. (Gummesson, 1999).

Payne and Holt created a theoretical framework about the relationship of value and relationship marketing (Payne and Holt, 2001). They reason that the view of value of relationship marketing is of a wider spectrum than that of the earlier traditional marketing. In marketing the role of value was restricted to transaction and exchange and did not take into account the value created and transmitted by the individual relationships. They state that relationship marketing gives a more comprehensive and long-term picture of the creation of shareholder value. They also draw the attention to the fact that it is not only the relation of the customer-company which has to be taken into account, but also other important relations as well. They examine customer value in the context of multiple stakeholders and the organizational approach pertains to the total management value.

Srivastava's general theory framework derives the values connectable to marketing from customer relations (brand and customer base) and the partner relationship (channel, brands, network) (Srivastava et al., 1998).

To understand how value is created, we have to examine how it contributes to the performance of the company. This is examined with indicators like market share, price discounts, ownership value increase, market growth, decrease in sales costs, increasing loyalty and customer retention. Rappaport's model (Rappaport et al., 1986), (Rappaport et al., 1986) is used to connect market performance and ownership value, which identifies cash flow by summing up four index numbers, and they conclude, that there is no consensus as to which one is the most adequate measurement tool. In a later article Srivastava et al. supplement this theoretical

framework, so that it incorporates the three business processes which according to the authors creates the ownership value. The authors then show how the set of marketing tools are embedded in these processes (Srivastava et al., 1999).

However, relationship marketing is costly, and its not worth building a long-term relationship with every single client, it is only worth doing so, with the clients who are profitable in the long term. According to Kotler and Armstrong the most typical characteristic of the profitable customer is that that the customer's yield after a while exceeds the costs of its acquisition and the costs of its service. (Kotler and Armstrong, 1996).

Relationship marketing stresses the necessity of the maintenance of long-term customer relationships (Berry, 1995). The study of this factor has become the centre of attention in recent years (Baker, 2009, Finne and Grönroos, 2009, Kumar et al., 2009, Storbacka and Nenonen, 2009, Zboja and Hartline, 2010) and generally long-term customer relationship is assessed as the tool for keeping the competitive advantage. Behind this lies the conviction that long-term customer relationships are more profitable than short term ones. (McKenna, 2007). In literature this connection is regarded as basic evidence. (Bendapudi and Berry, 1997, Morgan and Hunt, 1994, Reichheld, 1993, Sheth and Atul, 1995).

Despite this, only Reichheld and Teal's 1996 study seems empirically well founded, which proved this hypothesis (Reichheld and Teal, 2001). Dowling and Uncles however refute this statement and support the necessity of differentiated analysis. (Dowling and Uncles, 1997). As an example, they refer to the fact that long term relationship customers expect value increased services whereas transactional customers do not.

The bigger profitability of older customers may also be true in the case of contractual relationships, because there is no need for new expenses to convince the customer about making another new purchase. In competing markets where customers have a lot of choice and the costs of switching are low, not even the high level of satisfaction can provide enough security to retain the customer. Customer satisfaction is an important factor in customer retention, however, this puts certain costs on the company. (Piskóti and Nagy, 2009, Flint et al., 2011).

In a company study carried out in 2007 Sharma stated that the transactional customers are more profitable than relationship customers and did not find any difference with regard to satisfaction. The reason for this was primarily the higher willingness of the new transactional customers to accept a higher price. (Sharma, 2007).

According to several leading researchers relationship marketing entails a change of paradigm in the view of approach and direction of relationship marketing (Webster, 1992, Grönroos, 1995, Parvatiyar and Sheth, 2001). The shift from the transaction based approach to relationship centred approach changes the object of marketing, and leads to a new general theory of marketing, as its basic principles explain the practice of marketing better than other theories do. (Sheth and Parvatiyar, 1995, Parvatiyar and Sheth, 2001, Sheth and Parvatiyar, 2002).

Ravald and Grönroos stated that the relationship itself has a significant effect on the perceived value, in a tightly knitted relationship the customer values not the particular offers, but the whole relationship. (Ravald and Grönroos, 1996).

### **2.5.3. The value of business relationships in the networks, the interactive model of the IMP**

IMP's (International/Industrial Marketing and Purchasing project) theoretical framework places the characteristics of the relationship between customer and seller in focus. The relationship is built up from the kind of interaction which include technical, social and economic factors (Håkansson, 1982). IMP regards the economic content as capital, similarly to Srivastava (Srivastava et al., 1998) but IMP deals more deeply with the characteristics of the capital connected. (Gummesson, 2010, Håkansson, 1982, Håkansson and Snehota, 2006)

The interactive model of the IMP is built on the wide-spectrum, international sample based European empirical research carried out at the end of the 70's (Håkansson, 1982). The model describes the (business) relationship between the organizations with the interactive exchange episodes which take place between them. The exchange episodes are the exchange processes, which may contain various elements, This way we can distinguish between the exchange episodes of the product or the services, the information exchange episodes, the financial exchange episodes. The

fourth type of exchange episode is the social exchange, by which the personal relationship which develops between the participants of the exchange is meant. The basic units, building stones of the business relationships are the exchange episodes (Hakansson and Snehota, 1995). The condition of the establishment of the long term business relationship is the frequency of the various exchange episodes. That is, because the frequent exchange episodes can turn the occurring exchange processes in the business relationship into routineness. This may decrease the cost of the maintenance of the business relationship for both role players. Yet at the same time this may lead to the „institutionalization” of the relationship (Hakansson, 1982), which means that the partners treat the relationship almost like an aptitude, and do not examine its usefulness. The establishment, development, maintenance and even its termination requires efforts from the partners who are involved in the relationship. By this the use and investment of the various material and non-material resources is meant. (Ford et al., 1998). However, with regard to the mutual interdependence of the organizations, business relationships can be an important resource for the companies and in several cases it may seem like the relationships may be the most valuable capital of a given company. (Ford et al., 1998).

On the inter-organizational markets the strategic decision pertains to the modification of the present relationship portfolio. The tactical or the operative decisions touch upon the management of the particular relationships.(Ford, 1980). The strategic decision at the same time also means that it has to be determined how the organization allocates its resources among the various business relationships. However, to make this strategic decision we have to get to know the value of business relationships. (Ford et al., 1998).

#### **2.5.4. Customer value versus relationship value**

Mandják creates a metamodel in which the value of the business relationship is described. (Mandják, 2002). The model is three dimensional, one dimension is made up of the particular levels of the network (exchange episode, relationship, network) and the other is made up of the aspects of the role players (customer, supplier joint) and the third dimension is constituted by the economic/non-economic dimension.

The level of the value	The dimensions of the value					
	<i>From the aspect of the CUSTOMER</i>		<i>From the aspect of the SUPPLIER</i>		<i>From a JOINT aspect</i>	
	Economic dimension	Non-economic dimension	Economic dimension	Non-economic dimension	Economic dimension	Non-economic dimension
Exchange episode						
Relationship						
Network						

Figure 1.: The structure of the metamodel describing the value of the business relationships. Mandják (2002) pg. 37

Based on the literature analysis of Mandják, the value between the companies projected from the supplier's aspect is the same as the customer value defined in the relation of business to customer (Mandják, 2002), in other words, it is nothing else than the difference between the total revenue calculated on the entire lifespan of the customer and the total cost spent on acquisition and the service provision for the customer. Mandják draws the attention to the concept created by Walter et al. (Walter et al., 2001), who have also taken the network effect into consideration when determining the value of the business relationship. In their empirically tested model they defined two values and two dimensions of the business relationship (relations and network type) and have described particular dimensions with the various functions (relations: profit, volume, protective, network: innovation, market, detectability, accessibility).

The authors have first examined the two dimensions separately and have found that both dimensions contribute to the perceived value of the business relationship. At the same time, while examining the two dimensions, the authors have also found that the network functions influence the perceived relationship value of the supplier less, than the relational and direct functions (Walter et al. 2000). That is, the relationship level has a more important role in the development of the perceived value of the relationship than the network factors.

Piscopo pointed out that while with the individual customer the frequency of buying is the most important factor from the aspect of customer value, in the case of organizational customers the demanded level of the service provision is the defining

factor. According to Piscopo for the calculation of customer value we have to understand the kind of expenditures and investments which belong to the various levels of service provision. (Piscopo, 2007).

On the whole we can conclude that the concept of the relationship value as interpreted in the network paradigm of the organizational markets is more broad in spectrum than the customer value interpreted in the case individual customers, as it encompasses the value perceived on the seller's part, and the value perceived on the customer's part. The basic interpretation of the concept customer value is the same on organisational and individual markets. The unique traits of the organisational market (Ford et al., 1998) do not yet appear at this level. Further it can be observed that both from the aspect of the customer and the aspect of the seller there is a need to take into account more and more variables (added value) to obtain a customer value calculation which can be used well. (Ulaga and Eggert, 2006, Naumann et al., 1995, Gale, 1994).

	Business to Customer	Business to Business
Value from the aspect of the customer	Value <b>perceived</b> by the customer	<b>Relationship value</b> and value perceived by the customer
Value from the aspect of the seller	<b>Tangible</b> and intangible part of CLV and CE	Tangible part <b>of relationship value</b> , CLV and CE

Figure 2. Connection between Customer Value and Relationship value (self-edited)

## 2.6. The role of the customer value concept in the new economy

In the previous product centred way of thinking the products produced the value for the company, the increase of sales stood in the centre of the company's activity, with the highest possible cover, thus increasing the profitability of each product. However, both the product and the cost advantages can be copied by the competitors.

With the customer centred approach the customer makes the value and the acquisition and retention of the customer are at the centre of the activity. These retained customers form the basis of the long term competitiveness. This approach becomes more and more relevant in the new economy due to the increasing ratio of services. (Zeithaml, 2000).

With the advancement of information revolution new marketing fields and new marketing tools develop which define the research topics and shape the methodology

(Pauwels and Weiss, 2008). New, to-be-solved problems appear and we can approach old problems with new methods thanks to better company database and knowledge base.

On the internet the acquisition of customers is more expensive than in the physical world (Reichheld and Scheffer, 2000), therefore loyalty in the case of internet based companies is an even more important factor. It is important to understand that loyalty only makes sense in the case of profitable customers. Loyal, but loss making customers doesn't do any good to the company.

With the occurrence of the age of the internet the significance of customer value has also increased, as the internet companies do not have a physical capital of huge value.

These companies can only be evaluated in a fair manner if we quantify their non-tangible capital. The most significant one among them is customer value, by which's calculation we can get a picture of the potential hidden in the company.

The place of mass marketing is taken by targeted marketing. Customer value enables companies to plan customer specific marketing offers, and to measure their effectiveness and efficiency.

Kumar, Lemon and Parasuraman (2006) define nine future challenges after an overview of the literature pertaining to customer value. (Kumar et al., 2006).

The strategic challenges belong to the first group:

1. the effect of the web, customer management in multiple channel systems,
2. the increase of the customer centeredness of the companies,
3. the definition of the relationship of the brand and customer value

Second are the challenges pertaining to modelling and measurements:

1. every company has to find the right customer value model and measurement type suited to its own situation and environment,
2. the understanding of the relationship between customer value measurement tools and financial measurement tools (CLV-SHV),
3. customer behaviour in the future the measurement and prognosis and of the change before it occurs.



The third group consists of the challenges involved in the launch:

1. the understanding of the critical elements of the customer value launch ( who does the customer belong to, who is responsible for the customer value management within the company
2. how the global customer value management solutions can be introduced.

### **2.7. The possible contribution of customer value to a more environment conscious marketing**

In marketing literature studies examining the relationship between marketing and environmentally conscious behaviour in the 1970's, in the 90's environmentally conscious behaviour became an important areas of market research, while nowadays environmentally conscious marketing can be regarded as one of the most important section area of modern business studies. (Nagy, 2009). Nagy points out the discrepancies between the definitions and the concepts and defines environmentally conscious marketing as follows: Satisfying human needs and making voluntary exchange processes possible, respectively all such activities which make this easier, taking into account first and foremost the long term interests of society, melting the concept of environment into itself, endeavours to make an integration between the consumers and the environment, and in the meanwhile works with a target system, strategy and set of tools which are different from the traditional and are environment oriented in the interest of improving the general quality of life. (Nagy, 2005).

Environment conscious purchase actually results in a kind of purchase which fulfils the needs at least to an extent to which the traditional consumer behaviour does, but it taxes the environment to a much lesser extent. (Kerekes and Kindler, 1998).

The effect of the set of marketing tools which are at our disposal on the environment does not yet count among the primary decisional criteria (Nagy, 2009). The considerations in connections with sustainability can only come to the forefront within the framework of traditional marketing way of thinking if they are very strongly connected with one of the factors which directly influence the decision. As a long time is needed for the wide spectrum change in the economic point of view for achieving genuine sustainability, there is no other option but to place the individual

elements on the traditional profit and growth oriented interactions, and thus decrease the unsustainable elements in the system.

Next we show a theoretic consideration pertaining to how the customer value concept may be a valuable and useful mediator towards a more environmentally conscious marketing, how it effects marketing, first and foremost the application of customer value concept to making a choice between the set of tools and how a marketing mix can transform in the interest of a more profitable customer portfolio in the long term, alongside the use of a more environment conscious strategy.

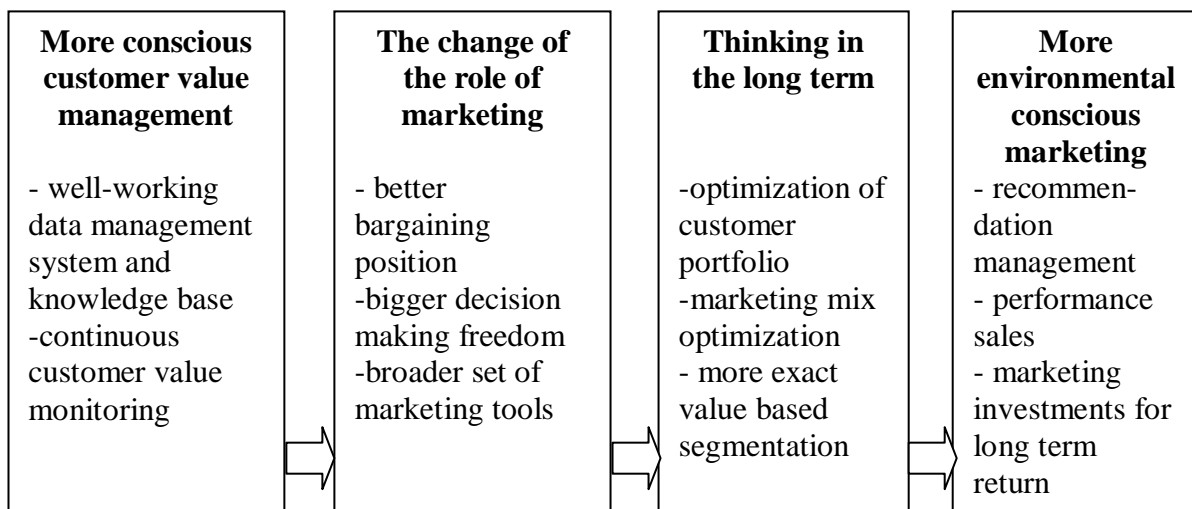


Figure 3. The Impact of Customer Equity Management on Environment Centred View of Marketing (self-edited)

The measurement of customer value makes marketing financially predictable. This has a significant effect on the role of the marketing function within the company and on the entire operation of the company. This can mean a better position for bargaining and a bigger freedom for making decisions for the managers. They can support the rightful application of such kind of tools which does not come to light in the short term from the sales statistics. Thus, two effects can be observed simultaneously. One is the stronger position for bargaining within the company, the other is the option to choose from a wider set of marketing tools within the company, primarily through the fact that the way opens up towards more long-term „marketing investments.”

The effect of the strengthening of the bargaining position in itself can have both a positive and a negative effect on the environment consciousness of the company, as

to which one is actualized, depends on the joint effect of several factors. However, the establishment of the possibility of the long-term thinking which is so not typical these days may open the door to a more environment conscious marketing thinking.

The most important significance of the customer value management from the aspect of environment conscious marketing is its contribution to the more effective use of resources, by the fact that through its use the effect of marketing activity is made measurable. Its most important practical significance is provided by the fact that with the development of the customer value calculation the company gets a more important picture about to what extent and how its particular customers, certain segments or its entire clientele contribute to the return on the applied tools, so we can establish a direct connection between the achievement of the marketing activity and the company's targeted aims.

There is the possibility of a more exact, value based segmentation through which the marketing mix can be better fitted on the particular segments. From the aspect of sustainability one possible solution is that instead of product sales we concentrate on their performance sale.

That is because customers do not consume the product itself, but the service which is provided by it. (Csutora and Kerekes, 2004). They would like to buy coolness not the refrigerator, not the washing machine, but at home laundry service.

The milestone of the development of the concept is the long term marketing thinking, which's other very important increment is that marketing investments with long term return become possible. These may have a significant influence on the product, price, distribution and communication policy as well. Good examples of this are in Kósi and Valkó's eco-marketing mix. (Kósi and Valkó, 2006). All three topics are worthy of both further conceptual and empirical research.

### **3. The analysis of the customer equity concepts**

In the next chapter, the customer equity concepts and various directions of these are going to be presented. The purpose of the analysis is to show the elements and connections of the customer management system, and to expose the possibilities of their development in the direction of the difficult to quantify „intangible” factors.

#### **3.1. 3E instead of 4P – value equity, brand equity, relationship equity**

Traditional marketing is built on the 4P's (McCarthy and Perreault, 1984), while customer equity oriented marketing has created a framework of thought which is different from this. In order to understand the process of customer equity management and its contribution to customer equity, it is important to get to know and to understand these frameworks of thought. One such basic leading thread is the customer equity concept created by Rust, Lemon and Das Narayandas which substitutes the 4P's with the three components of customer equity, which are: value, brand and relationship equity. (Rust et al., 2005).

Comparing the two we can conclude the 3 out of the 4P's (product, price and the sales channel) can be listed with product value, the fourth P can be listed with brand equity, however, not one value refers to relationship equity. Recognizing this discrepancy a fifth P was added (people) from who the revenue originates. Based on the concept of Rust, Lemon and Narayandas the resources of the company have to be grouped around this. Instead of product and brand managers there is a need for customer management.

Customer equity management comprises of four (Rust, Lemon, Narayandas, 2005, p.2):

1. The analysis of the customers
2. Company and competitor analysis
3. Strategy development and establishment
4. Measurement, control, evaluation

The three main components of customer equity are: value equity, brand equity, and relationship equity.

Brand equity shows the customer's objective (material) evaluation in connection with the usefulness of the company's product, service. Its influencing factors are: quality, price, convenience services.

Brand value means a kind of „magnet”, reminder, emotional tie, it shows the customer's subjective attitude to the brand (the company and its products). Influencing factors are: brand awareness, attitude, company ethics.

Relationship value shows the strength of the relationship between customer and company (loyalty programme, affinity programme, communication building programme, knowledge building programme).

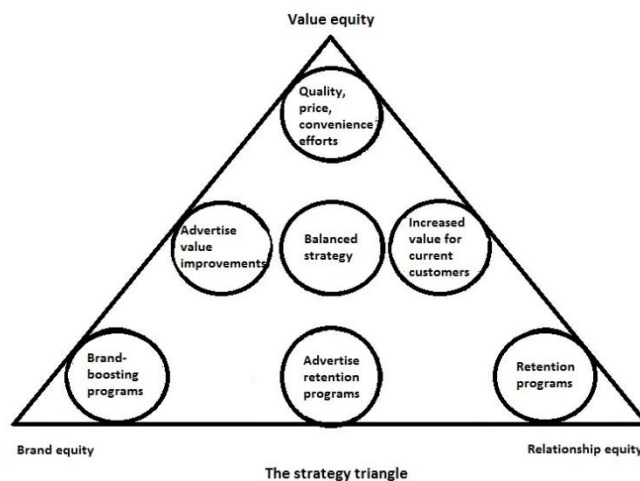


Figure 4. The strategy triangle  
(Source: Rust, Lemon and Das Narayandas, 2005, pg. 27.)

In the interest of choosing the right customer management strategy the company has to determine which one is the most important for it from the aspect of increasing customer equity. Depending on the industry branch different factors determine customer equity management.

### 3.1.1. Customer equity increasing strategies in the concept of Rust, Lemon and Narayandas (2005)

Below the management elements and their connections will be showcased based on the concept of Rust, Lemon and Das Narayandas (2005). Understanding this particular approach is important, because customer equity management can only be

applied effectively, if we re-evaluate, examine and rank marketing's tasks from the aspect of customer equity.

The first possibility is that from among the three dimensions of customer equity the company opts for one and places the emphasis on that. It can also happen that there is a need for mixed strategy because two value defining factors happen to be important. Rarely, the company cannot identify neither one, nor the other strategy from among the three, in this case, there is a need for balanced strategy, by taking all three factors into consideration.

The dynamic process through the course of which the company determines the factors of customer equity is called customer management plan. This can be divided into four steps. The first step is to analyse the market, to collect customer data, the examination of the present and the future clientele. An analysis of how the company stands in connection with the factors of customer equity.

The second step is to compare the company with that of the competitors, define the strong and weak points, possibilities and based on all of these the focus of the strategy.

The third step is to create customer management strategy. The segmentation of the clientele and the definition of the target group, the selection of less profitable clients. Defining the priority of the strategy: (product, brand or relationship value focus).

Fourth step: Measurement, control, evaluation: It has to continuously be examined how the invested resources relate to long term profitability. Defining trade-offs, the continuous controlling of major factors, the repeated analysis of the factors of customer equity, and the re-evaluation of the strategic priorities.

Before the company begins to establish its customer management strategy, it has to get to know its market, and the customers on the given market. The first step is to analyse the market. It has to be understood what influences and motivates the customers to buy and buy again. It has to be defined whether the value, brand or relationship dimension of customer equity is the most important one, and which factors are behind this. After this, it has to be defined what the company's performance is like with regard to these factors. In order for the company to decide where to invest its resources in it has to know its possibilities. It has to know what from the aspect of the customer equity of the market, what share of the total market

is in its hands and what share of it is in its competitors' hands. Market share shows the state in the present, customer equity shows the possibilities in the future. The study of the brand switching habits of the customers can also be an interesting thing to study for the company.

In order to get to know the value judgement of the customers, data collection is needed. We have to ask all the necessary information from the customers (volume of purchase, its frequency, the most frequently bought brand, future intention to buy etc.) The most appropriate are the longitudinal panel data, because with the help of these, the mistakes which arise from the difference between the intention to buy and the actual action can be avoided. Following the collection of data calculations and the evaluation of the values of the model can begin.

The company has to clearly see what role its customers in the present and in the future will play in the customer portfolio. It must be ensured that the personnel responsible for the recruitment of the customers agrees with the selection criteria and has the adequate and good quality customer information to make the decisions. In order to do this, the company has to build pro-active, long-term company level customer management systems.

For many companies brand value is the most important component of customer equity. Brand value expresses the subjective evaluation of the customer towards the company and the brand. The brand can increase the likelihood of the customer continuing to remain with the company. The company always has to count on the fact that somebody will enter on the market who is capable of serving the customers better and more quickly. The company influences the brand value with its marketing strategy and set of tools, through the experience, associations of the customer through the relationship with the company and the brand. As a consequence of the positive attitude established attitude established towards the brand the likelihood of the customer choosing that given brand again is bigger, and the likelihood of the customer opting for the competitors' brand is smaller, and the customer will gladly recommend the brand to friends. Brand value is not equally important to every company. Brand value is of relative importance to the product value and relationship value:

- if involvement is low and the decision to purchase is easy

- if the product is visible to others ,
- if the positive experience can be passed on from individual to individual or from generation to generation,
- if the quality of the product and the service are difficult to evaluate.

Brand value has three influencing factors, these are: brand awareness, attitude to brand and company ethics. Brand awareness encompasses the knowledge related to the brand and their recollection. Brand awareness is created by the company through communication strategy. The company can choose from the traditional building elements of communication strategy, and can exploit the possibilities in word of mouth advertising. This may be supported with various initiatives by the company (recommend the promotion to a friend) or it may be based on natural communication (virus marketing). The company has to present a uniform picture about the brand, and it has to continuously control the efficacy of communication. The attitude towards the brand shows how the customer defines the strengths and weaknesses of the given brand when compared to the brands of the competitor that is, how the customer positions the brand. The company can also use various communication techniques or word of mouth advertising to influence tendency. The third factor of the brand value shows how much the values communicated by the company are alike with the values of the consumer. Its important for the company to know the consumer values, and to connect those to the brand.

Product value dimension was defined by Rust, Lemon and Das Narayandas (2005) as the usefulness of the product or the service to the customer, which is based on the perception of what the customer has given (including time and effort) and what the customer has received in return. Thus, this is very similar interpretation-wise to the concept previously defined as perceived value. (Ravald and Grönroos, 1996, Woodruff, 1997, Zeithaml, 1988).

This has three factors which are: quality, price, convenience factors. Quality has three sub-components, these are: the physical product (the tangible part of the product), the level of service, and the service environment. Price is the most often used marketing tool for influence the value perception of the customers. Rust, Lemon and Das Narayandas have identified four influencing factors: everyday low price, discounts, promotions, complex pricing (flexible price and payment constructions



e.g.: mobile phone) situational pricing (different prices in the different purchase situation, time, place, etc., e.g.: airplane ticket). The periodical discounts may be effective for convincing new managers, but in the long term do not always contribute to the increase of the customer equity. The effect of price is very powerful on the customer equity endeavours must be made to reach long term effects.

The third component of the product is the convenience factor, by which we mean place (physical or virtual environment in which the interactions or the purchase takes place), easy use and access. Product value is a decisive factor for the customer, in case the customer does not perceive this, its not worth spending on and advertising campaign or loyalty programme. Product value is an especially important factor of customer equity in the following cases: when there are noticeable differences between the competitive brands, in case of innovative products and services, in case of a complex decision to make a purchase, or when re-launching established products.

The management of relationship equity has two aspects, one is the understanding of a relationship and its management, the other is the management of the portfolios of the relationship, which are all different types and are at various stages of development.

In transactional relationships the company tries to maximize its profit in each and every transaction. What the one party receives, presents itself as expenditure on the other side, so this is a zero-sum game. The customers generally like to get information about the company prior to making a purchase, which means expenditure before the purchase is actually made. For the quicker breakthrough of this one-sided relationship there is „the foot in the door” (abbrev. FITD) approach, when the company acquires clients from the competitors portfolio by breaking onto the market very quickly. This tactic may have many drawbacks, for example that the clients believe that the company is only suitable for the purchase of the FITD product. Another option is the „all at one” approach when the company meets the customers’ needs in many fields at the same time.

Multi-channel and multi touch point systems have changed the bases of CRM systems, however, the protection of personal rights puts an ever more serious limitation on these.

### 3.2. The „Return on Marketing” model

In literature we can distinguish between two large groups of the customer equity model (Berger and Nasr, 1998), there are direct marketing intentioned models and the models using longitudinal databases.

The Return on Marketing Model created by does not require the existence of the longitudinal databases, it takes into account any kind of marketing issue, market competition, customer usefulness, brand switching and the CLV (Rust et al., 2004b).

Their customer equity definition differs from Blattberg’s (Blattberg and Deighton, 1996) in that it also extends to future customers. They define customer equity as the sum total of the CLV discounted to all present and future customers (they assume that the company moves on one market and distributes one brand).

When showing the financial effects they refer to the two previous models, to the service profit chain (Heskett et al., 1994, Kamakura et al., 2002) and to the return on quality (Rust et al., 1995b). Both models contain those kind of effect mechanisms which are connected with quality of service, customer retention and profitability. The return on marketing model goes one step further and it expresses the financial effect of the service development explicitly. Similarly to these, the model calculates return on investment abbrev. ROI). Not only on service development, but it presents a strategic alternative, trade off, on any marketing action, in other words it makes the particular marketing tools comparable.

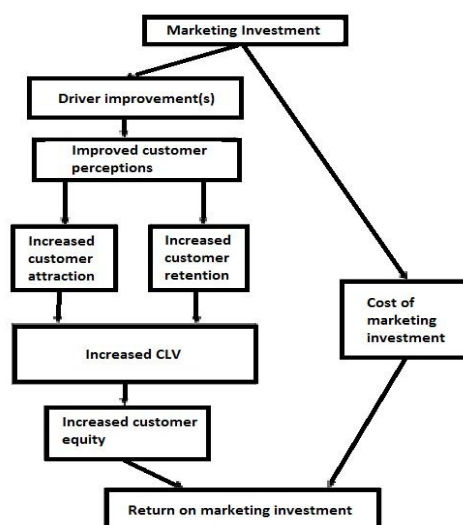


Figure 5. Return on Marketing (ROM) model  
(Source: Rust, Lemon and Zeithaml (2004) pg. 112.)

The logic of the model is based on the fact that it regards marketing as an investment (Srivastava et al., 1998), which has an effect on certain factors of customer equity. These factors have an effect on the perception of the customer (Simester et al., 2000), which's result is the increased address and retention of customers. (Danaher and Rust, 1996). Better customer address and retention increases CLV (Berger and Nasr, 1998) and CE-t (Blattberg and Deighton, 1996). Comparing these with the marketing costs gives us the return on marketing (abbrev. ROM).

In the centre of the model created by Rust, Lemon and Zeithaml (2004) stands a CLV model which incorporates brand switching. They start out from the always a share model. With the help of the Markov matrix model they show customer retention, customer loss, and possible return. The Markov matrix is the generalization and extension of the migration model to several brands. This model is used widely to model both brand switching (Bandyopadhyay and Martell, 2007, Ehrenberg and Goodhardt, 1979, Kahn et al., 1986, Kalwani and Morrison, 1977), and customer relationships (Pfeifer and Carraway, 2000, Rust et al., 2000).

The brand switching matrix contains both the customer acquisition from other companies and the customer retention (diagonal elements). The probability of brand purchase for a certain period gets to be shown, and the probability of customer retention from each and every tested brand to each and every tested brand. This trait makes it possible to take into account that the customer leaves and comes back, maybe even several times over. In other models, this return of the customer is equivalent to the acquisition of new customers.

An important presumption with the researched concept is that a company has the possibility to establish various offers, programs (special price offers, loyalty programme etc.) which influence the customers 'decision and thus compete for the resources within the company. The management has to compete these tools based on which provides the biggest return (Edvardsson et al., 2000). Because we connect the factors with customer perception, it is important to be able to quantify the effect of the marketing touches on the level of the individual customer. The perceived effects in connection with the brand have to be measured in the case of every factor. The company can draw these factors into bigger expenditure categories, which show a higher level of resource allocation, these are the strategic investment categories (e.g.: the tools connected to brand value).

To model the CLV we need to know the switch matrix for every single customer. For this we need individual data, based on which we calculate the individual CLV. In the model, in addition to the factors influencing customer equity the effect of brand inertia is also involved, which has shown itself to be a useful pre-indicator in the multinomial logit choice models (Guadagni and Little, 1983). Though the model contains the brands of the competitor, it does not contain however the effects of the possible reactions of the competitor.

### **3.3. Examination of the relationship between customer equity and shareholder value**

Several research results show, that the estimations of the customer equity are close to the company's values and are connected with the shareholder value (Gupta et al., 2004, Anderson et al., 2004, Cleland and Bruno, 1997, Hogan et al., 2002a, Lukas et al., 2005, Rappaport et al., 1986, Srivastava et al., 1998).

A company's market value has three important factors: the stock price, price/earning multiple, and overall market capitalisation. According to Berger et al. the next step in the development of marketing is the measurability and accountability of marketing touches and with their help the presentation of how consumer behaviour influences the capitalization of the company, that is, it is the exposure of the relationship between customer equity and shareholder value abbrev. SHV) (Berger et al., 2006).

Hogan, Lemon and Libai consider future orientation as a one of the most important traits of CLV measurement (Hogan et al., 2003a). Berger et al. are looking for an answer to the question as to how an approach can be future oriented if only data from the past are at our disposal. They see the solution in the need to manage the problem of uncertainty. The other problem which arises is whether the level of the measurement is individual, pertaining to a segment, or whether it is worth doing a calculation pertaining to the entire company. The company level measurement is suitable for the measurement of CLV and shareholder value, while the less aggregated measurement is suitable for measuring the effects of customer behaviour and company actions such as CLV and SHV. In case we accept that CLV is the adequate tool for measuring the return of marketing touches, for the development of customer and company level strategies, exploring the relationship between CLV and

SHV helps ascertain the effect of marketing capitalization and with this it makes the marketing expenses accountable.

As the company activity has a direct effect on the price of the shares, it is important to find the relationship between the various tools of measurement in the chain of value.

The basis of the concept of Hogan, Lemon and Rust is that a hierarchy exists between the capitals of the company (Hogan et al., 2002b). A part of the capital is tangible, e.g.: the site, the tools etc. Its intangible part is the brand, channel relationship, can only be evaluated to an extent to which extent it increases the customer equity capital. The extent of this contribution is defined by the company's Customer Equity Management (CEM) abilities. Customer equity management has to focus on the two critical capitals of the company, on the one hand the relationship with the present and the future clientele, and the collective knowledge pertaining to how to initiate, develop and maintain the economic relationship with the customers. The other part of it is the customer equity which is the measurement tool when it comes to the marketing activity of the company, its size is defined by how the company combines its resources and how it fits those to the market.

In the focus of Hogan, Lemon and Rust's model (2002) stands successful competitiveness in today's dynamically developing marketing environment. They focus on those CEM abilities which are essential for its actualization. They were the creators of the first kind of client-company model interaction depicting model which clearly connects the marketing touches with the shareholder value. The application of the financial models has often not led to results because the financial requirement system of these was often too strict for marketing (Devinney and Stewart, 1988, Wernerfelt, 1985). They often used net current value calculation, and it seems this led to a better result than the former. (Dwyer, 1997, Srivastava et al., 1998).

Hogan et al. (2002) point out that in the future companies have to gain experience in CE modelling in order to develop a more efficient strategy. More refined measurement technique and more refined measurement theories will be needed. For the modelling of the CE special inputs are needed. The model does not only have to

show a direction in regards to what data the company needs to collect, but also in regards as to how to manage these data.

The collection and analysis of marketing information has been given a new boost in the past years, when companies started to regard it as a resource of competitive advantage. (Sinkula, 1994). The primary role of marketing as a strategic unit is to determine the optimal marketing mix in the interest of maximizing the CE. Hogan, Lemon and Rust (2002) pinpoint the following directions of research with regard to the future:

- the understanding and integration of the dynamics of consumer behaviour into the model,
- breaking through traditional frameworks,
- integrated CRM strategy, new technologies,
- CLV based market segmentation,
- global launch,
- modelling,
- the relationship between brand value and customer equity taking into account marketing and competitive factors.

### **3.4. Examining the relationship among of customer acquisition, retention and profitability**

The companies primarily place the emphasis on the existing customers and the retention of already existing customers, and do not take into account that the characteristics of the customer acquisition process have an influence on the retention of the customers. Blattberg and Deighton (1996) have created an aggregated model with which's help they are looking for a connection between customer acquisition and retention (Blattberg and Deighton, 1996). Thomas (2001) also made the basic assumption that the manner of customer acquisition has an effect on customer retention. The aim is to present the mistakes which arise from the assumption that customer acquisition and customer retention are processes which are independent of each other. (Thomas, 2001). Venkatesan and Kumar (Venkatesan and Kumar, 2004) come to a conclusion about the frequency of future purchases from the past characteristics of the customer, with the help of the model they created, the

sensitivity of the customers to channels used in marketing communications can be examined.

The retention of customers and customer loyalty are factors of key importance for the company, however, being familiar with it is only half-information without being familiar with customer equity. It is important from the aspect of the profitability of the company that its valuable customers remain its customers in the long term.

The concept of customer retention is historically based on two assumptions. (Jackson, 1986). The first one counts with the „lost for good” customer retention probability, which is the probability, that the customer, who was a client in a certain past period will also remain a client in the periods to come. As the probability is generally less than one, this probability decreases as time advances.

The models which estimate the number of active customers have been created for the purpose of relationship marketing (Schmittlein et al., 1987), customer retention modelling (Bolton, 1998), and CLV modelling (Reinartz et al., 2004, Reinartz and Kumar, 2000a, Reinartz and Kumar, 2003b).

The second approach is the „always a share” one, in which the customers are not just the customers of one company. This approach is applied in the migration models Berger and Nasr and Dwyer (Berger and Nasr, 1998, Dwyer et al., 1987). The model assumes a probability of retention, and if the customer omits a period, it calculates with less probability, assuming that the customer will return.

The more time elapses, the lesser the probability. The latter model is not complete, because it only takes into account a purchase with one company. The discrepancy of the „lost for good” models is that they underestimate the CLV, as they do not take into account that the customer may still return.

The marketing data at our disposal rarely contain data about the competitors or their brands. Consequently, the CLV models do not take this into account, despite the fact that it has long been proven that the perception of the competitors’ brands play a defining role in the brand choice (Dwyer, 1997, Sheth, 1972).

Market competition has an effect on each and every customer decision. By taking into account the competitive brands it is possible to address and examine the customer in the competitive environment. Thus the effects which the competitors

have become modellable, and the depiction of the CLV is more complete and more exact (Rust et al., 2004b).

### **3.4.1. The relationship between customer retention and profitability**

Dowling and Uncles have shown that there is a positive connection between loyalty and profitability, and in the background however, an important factor was, that they took into account the recommendation of loyal customers. (Dowling and Uncles, 1997). Several empirical researches show however, that the connection between the two factors is not nearly as unambiguous. Significant proofs of this are the researches done by Reinartz and Kumar (Reinartz et al., 2005a, Reinartz and Kumar, 2000a, Reinartz and Kumar, 2003a, Reinartz and Kumar, 2003b, Reinartz et al., 2005b)

Reinartz and Kumar (2000) test four assumptions with the help of empirical data in connection with the relationship between customer retention and profitability:

1. There is a strong positive connection between customer lifespan and customer profitability.
2. Does profit increase with the passing of time?
3. The service costs of customers with a long lifespan is less.
4. Customers with a long lifespan are prepared to pay a higher price.

They used the data of a large catalogue store retroactively for a period of three years with daily precision. In the empirical research they use negative binominal division (NBD model) to estimate the customer lifespan (Schmittlein et al., 1987, Schmittlein et al., 1985, Morrison and Schmittlein, 1988). The model is suitable for answering the question as to which individual customers are most capable of representing both the active and the inactive customers. With the help of the model the probability whether a certain customer with a given customer history can be regarded as active or inactive can be defined, which has a great significance from the aspect of the test.

Reinartz and Kumar (2000) have found a weak positive connection between customer lifespan and profitability. Their research has made it clear that customer lifespan in itself alone does not give a good explanation of the customer's profitability. Even in the case of the long lifespan, insurance company with the most yields bringing it was not possible to verify the positive connection between time and



the growth of profit. The results have questioned the connection that loyalty is always a desired factor.

In the examined case the connection that customers with a long „lifespan” have less service costs was proved to be untrue. In the long lifespan segment the mailing cost projected on a one dollar sale statistically did not differ from the short lifespan segment. In the case examined, the assumption that customers with a long lifespan are prepared to pay a higher price was not proven either.

Reinartz and Kumar (2000) examined the segmentation possibilities of the clientele divided into customers with a short and customers with a long lifespan, in order for the company to be able to use its resources effectively and not spend unnecessarily on „dead” clients. They have shown the date by which the company has to give up correspondence with the client, because in this case, cost savings would be higher than the lost profit gained from the expected revenue. They have shown that the company wasted significant resources on customers who never again purchased from the company, as the company did not take into account the future activity of the customers. It was proven that the previously used RFM framework leads to excessive spending. They have shown that customers with a long lifespan simply cannot be identified with increasing spending, lower service costs and price flexibility. In the non-contractual relationships the yield is what defines the customer equity and not the duration of the relationship. The company’s right offer as opposed to that of the competition and the fulfilment of customers’ demands is what makes the customer stay with the company. In case switching costs are low, their role is small, the effect of competitors and other factors are however, stronger.

Reinartz and Kumar (2000) recommend managers several ways to maintain the non-contractual relationships. One such possible way is raising costs for the customer, loyalty programme, bonus system etc. The question is however, whether the relationship will be sustainable with these tools. Another possible method is to try to explore the lifetime characteristics of the client as early as possible.

Reinartz and Kumar have identified those factors which have a positive effect on the lifespan of the customer (Reinartz and Kumar, 2000a, Reinartz and Kumar, 2003b). The characteristics were listed in two groups, and these are the exchange characteristics and the demographic variables. Among the first listed are the

spending level of the customer, add on buying, focused buying, loyalty, mailing efforts. The average period between buys, was in an inverse, „u” shaped relationship with the profitable lifespan. From among the demographic factors smaller town environment and higher income were positive factors. A further assumption is that the purchase behaviour of the higher value clients is connected with stronger motivation. In other words, it is believable that short life span, high yield customers are lead by emotional factors rather.

For practice, an important lesson of the researches is that both short and long term customer relationships can be profitable. The company must learn to differentiate between the two types, and tailor different marketing strategies for them, which are effective for both groups.

The criticism of the model, which the authors themselves describe, is that three years of data are insufficient to understand the phenomena. The shorter term analysis can show profitable customers as not at all profitable, because different customers have different frequency of purchase. Determining the time of the first purchase constitutes a very important element of the model, this has to be determined very carefully. Due to its complexity the model is difficult to apply in practice, as it calculates with individual purchase probability; its use is ever the less profitable, the larger the number of customers is, and the smaller the contribution is for each and every individual customer.

Sharma (2007) has achieved a result similar to Kumar's. He conducted empirical research in three industry branches on the business to business markets and the research has shown a reversed relationship between customer lifespan and profitability, the oldest customers proved to be the least profitable, however Sharma has not calculated with the positive effect of recommendations (Sharma, 2007). The result of Kumar's 2010 research also draws the attention to the importance of taking the recommendation behaviour into account (Kumar et al., 2010).

### **3.4.2. The effect of defection on the social relationship between customers**

Since Reichheld and Sasser have shown the effect of customer retention on the profile of the company, researchers have dealt a lot with getting to know the process of customer attrition (Reichheld and Sasser Jr, 1990). Hogan et al. different between

two types of customer attrition. One is defection, when the customer switches to the competitor, the other category is disadoption and it means that the use of the product or the service is stopped completely. The two cases have different consequences for the company from the aspect of customer value. In the event that a customer defects, the company loses the yield from future sales. In the event that the customer leaves the category, it is not just the direct effect which becomes valid, but WOM, copying, and other social effects are lost as well. Researchers have proven that the two decisions significantly differ from each other. (Kleine et al., 1995, Redmond, 1996). Leaving the category is especially a problem for markets which apply new technologies. According to the authors, on markets where the number of customers leaving the category is low, customer equity can be measured with traditional models. (Berger and Nasr, 1998, Dwyer, 1997, Rust et al., 2001).

In order to estimate the value of the customers leaving the category, the sales effect achieved from slower customer acquisition must be measured. Slower customer acquisition is the result of decreased WOM and other social effects. Hogan et al. use Bass' new product growth model to model this (Bass, 1969, Bass, 2004, Mahajan et al., 1990). The model is based on the principle of Rodgers' diffusion innovation model, which identifies two types of communication influencing resources, one is mass media, the other is social effects (Rogers, 1995). The model can be widely applied to various market situations, marketing mixes and products.

Hogan, Lemon and carried out an industry branch level analysis to examine which market and company factors have the most significant effect on customer equity. They have carried out the analysis with the help of Monte Carlo simulation and regression. They have found the time of leaving the category most significant. The earlier it happens, the greater the loss. In the beginning of the product life cycle, the product has few users, whose word of mouth advertising and social effect would generate further customers.

External influencing factors and media effect have a negative effect on customer equity, because the stronger the effect of the media is, the more users there are, and the less the loss is in the event of losing a customer. As opposed to this the effect of the social influencing factor is positive, the stronger this effect is, the greater the value of the customer is. The fourth factor is the discount rate, the current yields become more important as opposed to the yields of the future. In case the discount

rate increases, the current yields become more important as opposed to the yields of the future.

Using the Monte Carlo simulation yet again, they have also ascertained that in case a customer who left the category is not lost for good, but happens to return to the company, the loss resulting from the loss of the customer is reduced to a half.

This means, that even if the company is unable to avoid category loss, it is important, that it continues to keep these customers among its potential clients. This model was tested in the field of online banking. They have examined the value of a customer leaving the category both in a monopol and in a competitive situation. The result showed that in the case of online banking, in case of a lower market share the category leavers of the competition may cause a bigger loss for the company, then its own lost category leaving customers. The extent of the loss is made bigger by in case these customers use negative word of mouth advertising.

Hogan et al. assume that in case of desertion, the positive effect of WOM remains regarding the category, and this is favourable as regards the company. Thus the question arises as to what extent the deserting customer communicates the reason for the desertion towards a certain company. E.g.: „I recommend online banking, but do not bank with company „x or y”. In other words, the effect of navigation towards the competition begins.

The research carried out by Hogan et al. show that the process of customer acquisition and customer retention are connected and ignoring it leads to wrong value-ascertainment. They stress, that it is worth spending on programs at the beginning of the product life cycle which increase the acceptance of the new product. It is apparent from their research that it is worth spending on customer acquisition and post purchase support programs in the early stages of product launch, instead of placing the emphasis on acquisition only.

### **3.4.3. Presentation of the limits of the traditional customer equity concept**

As we shape the leading thread of our qualitative research we primarily have leant on the researches carried out by Bell et al. (2002) and respectively Berger et al. (2002) therefore in the following part we will present these in a more detailed manner.

From among the research showcasing the limits of customer equity concept the synthesizing work of Bell et al. (2002), stands out, they take on the problematic factors one by one, whilst following the developmental path of the concept (Bell et al., 2002).

We are going to present the limits of customer equity concept alongside the seven factors below.

*1. The collection of individual customer data at an industry branch level*

Those companies which needed to collect customer data in order to fulfil orders (direct marketing, insurance company, and bank) have taken the development of customer equity forward. Their followers were the companies who feared that their competitors would be able to better meet and fulfil the demands of clients after becoming familiar with these expectations. One of the difficulties of customer equity management is the collection of prospect data.

Experiences show that in order to avoid short-sightedness, there is also a need for those people's data who are not customers of the company. The company must know how much its share is of the total share of wallet. We need this information in order to know which customers have the biggest growth potential. In order to obtain this data, one option is the co-operation with competitors.

As we have already mentioned this at the beginning of the second chapter, the mail order industry branch, the pioneer of direct marketing has learned, that the advantage gained from more than 100 million addresses from a 1000 mail order companies is bigger, than the disadvantage resulting from individual loss of knowledge (Peterson et al., 1997). The global air transport industry has followed this example with the creation of the totalized flying frequency databases. However, most companies still regard their own client information a lot more worthy than totalized information.

*2. The tracking of the effect of marketing activity in the balance, not just the registration of the yield*

The customer is an asset, which has an acquisition cost which either produces a return or does not produce a return in the future, similarly to other assets of the company. In case costs are accounted for in the period when the costs arise, then there is the danger that the company invests too little into customer acquisition. However, customer equity has no place in the present accounting system. In this

respect brand value has the advantage. In Great Britain and Australia accounting laws stipulate, that brand value has to be included in the balance. Customer equity measuring models are connected with widely used financial indicators such as EVA (economic value analysis), ROI (return on investment) etc. It is worth exploiting the experiences which arise from these, and use them as a starting point. See on this topic also (Gupta et al., 2004).

### *3. The exact accounting of future yield*

Berger and Nasr established a model in which, when a customer has once left then the customer is regarded as lost for good, and the yield is received by the company at regular intervals (Berger and Nasr, 1998). Gupta et al. keep the „lost for good” principle, but do not assume the repetition of the customers at the same intervals (Gupta et al., 2004). Rust et al have loosened this principle, and have used Markov chain instead to model customer acquisition and retention. (Rust et al., 2002).

### *4. The maximization of the CLV (not just its measurement)*

The measurement of CLV is necessary but not enough, marketing managers must apply tools which maximize the CLV. The models have to take into account the competitive environmental effects.

### *5. Orchestrated customer management*

It is important for the company to find employees with the right ability for the marketing function.. The customer centred company places a great emphasis on direct marketing, data base marketing and customer service background instead of brand management. A further challenge for the company is to embed Customer Relationship Management (CRM) activity into the organisational system.

### *6. The acceptance of the sensitivity of customer information*

The decentralized storage of customer information is important, if possible on a computer or card which is stored at the customers' and not on central storage systems. It is useful to provide customers with the possibility to refresh their data..

### *7. The development of service instead of the development of efficacy*

Three major areas have to undergo transformation in the interest of a customer centred view, these are, the changing of the attitude of the customer facing personnel, company culture, the changing of the attitude of the non-customer facing personnel.

With the bridging of the above difficulties, the company will have the possibility to increase the value created for the customers with marketing touches and products tailored to person. The customers reciprocate this value with making a purchase again. The biggest challenge for the company is the share of the value between the customer and the company. In case the company hands over a too great value for the customer (sells the product at a too low price) that happens at the expense of the shareholder value, and in the same way, if the company gives too little, then it will not create the opportunity for a repeat purchase. The question is, how can the company maximize the value of the full relationship with the customer? The maximization of the relationship with the customer means nothing other, than the optimal distribution of the value between the company and the customer.

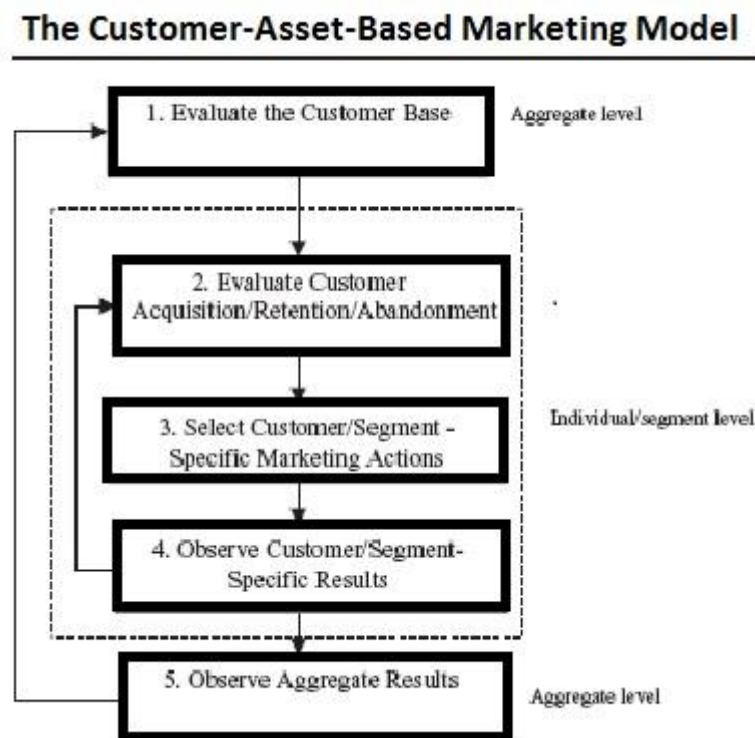


Figure 6. The Customer Asset Based Marketing Model  
(Source: Bell et al. , 2002 pg. 82.)

Bell et al. are convinced that the economic evaluation of the customer base will become an everyday practice in the future (Bell et al., 2002). In addition, they phrase such additional to-be-solved questions as the following: How do we measure the value of the non-contractual relationship? Will we ever be able to give a reliable prognosis about long term consumer behaviour? Which is the appropriate level of

measurement (individual, segment, customer base)? How can fair company behaviour be maintained towards the customers?

The high share of impulsive purchases is a characteristic of the non-contractual relationship. Because of this, there is only a chance with the small ratio of the client base to become a long term client. Therefore the long term management of the clients must be done with great care, taking the company and the industry branch characteristic into account.

Additional important factors are the emotional factors. In the determination of the value of the transaction lots of objective factors are taken into account such as the price, or comparison with the competitors based on objective factors, other people lean on their intuitions about the company to a greater extent.

Hoyer (1984) has determined regarding the FMCG market, that the emotions are more transient than factors of sense (Hoyer, 1984). D'Astous et al. have reviewed Hoyer's model in a lesser consumed, considered as important product category, and have concluded that the decision making process is more complex than previously assumed however, they too, have found the ratio of deliberative decision making low. (d'Astous et al., 1989).

In certain industry branches (for example where marketing costs contain service development) it is a big challenge to keep track of the individual customer history about the customers' purchases, the individually tailored, precise calculation of the direct and indirect costs (Berger et al., 2002). Berger et al. map the „touch history” of the clients, in which they include all kinds of customer-company relationship, the customer activity in between the transactions, the probability of re-purchases, add on-buying and recommendation. These activity based transactions can be customer initiated or company initiated inchoation, which are important from the aspect of profitability and from the aspect of the prognosis of future business cycles. When evaluating the touches their characteristics and importance must be taken into account, because it does matter for example whether the touch is customer or company initiated. Perhaps the touches initiated by the customers are even more important than those initiated by the company, as they can decrease the marketing costs of the company. The performance of the company has an effect on the share of wallet during the touches initiated by the customers (the ratio of the sum spent on the



given company in the customer product category) and word of mouth advertising. The various touches have different effects on the behaviour of the customer and the yield received from that customer.

Often the CRM databases are unable to show the usefulness of marketing actions. Therefore the measurement of the positivity connected with word of mouth is very important (Anderson, 1998; Dick and Basu, 1994; Hogan, Lemon and Libai, 2001). Despite the fact that technological development would make this possible, the creation of databases suitable for the calculation of CLV is a problem for companies.

The key questions of creating a database are determined as follows by Berger et al (2002):

- the exact designation of the research units „Who is the buyer?“
- limiting the time horizon of the CLV calculation,
- taking the switching behaviour into account,
- unification and clearing of data.

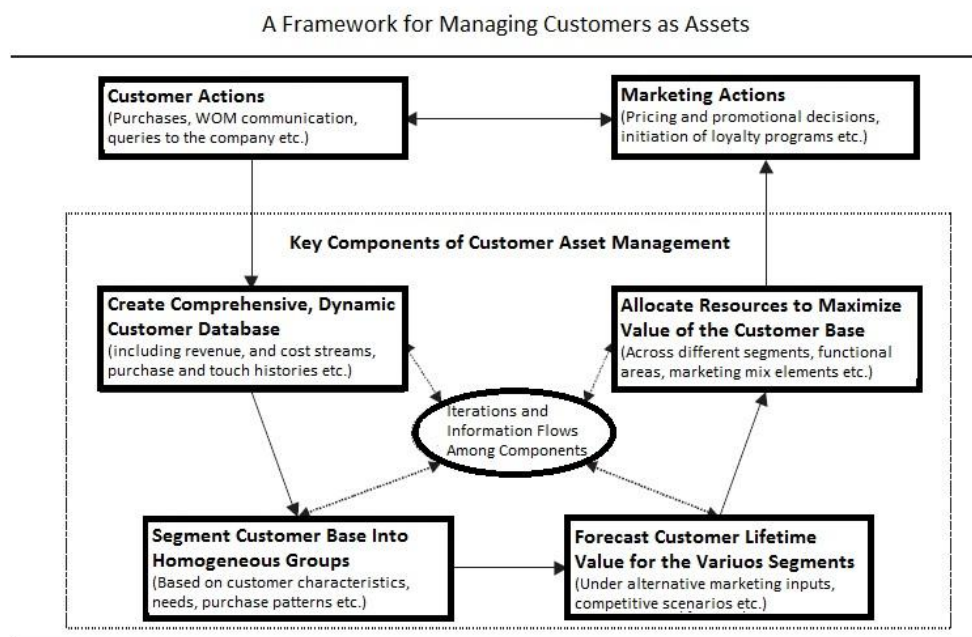


Figure 7. The framework model of customer equity management (Source: Berger et al., 2002 pg. 42.)

The distribution of the estimated received yield from the individual customers is based on the following: individual customer characteristics, response function to segments, the marketing touches of the company and the competitive environment of

the company. The authors reject the criticism according to which the uncertainty about the future of the individual customer is too great, therefore CLV is not an appropriate indicator number. The difference between the CLV-s can be explained by the customer's distinctive purchase patterns. An important characteristic of the segments is that the segments favour similar characteristics, and their behaviour is also similar (buying power, frequency of purchase, type of purchased products. The aim of segmentation is to have as big a homogeneity as possible within them, and to have as big a heterogeneity as possible between them.

The nucleus of the CLV calculation is a calculation model which contains the expenses and the revenues connected with the customer-company relationship for the researched period. The prognosis of the expenditure and revenue sides happens with the help of separate statistical sub models. All components of the calculation model contain assumptions about the marketing activity of the company, about competitors' touches and environmental effects. It is important that the CLV also depends on the strength of the relationship, not just its length.

Berger et al. point out factors which were previously not drawn into customer equity models, such are for example the technological readiness (TR) innovativity, which defines how much a customer is willing to try the new developments and technologies (Elliott et al., 2008, Meng et al., 2010, Park, 2008, Parasuraman, 2000), and they also draw the attention to the examination of factors like add on-buying (Kamakura, Ramaswami and Srivastava 1991), and the effect of word of mouth advertising (Anderson, 1998; Hogan, Lemon, Libai, 2001).

They also mention channel harmony as possible elements of the concept. This shows how orchestrated (the extent to which a company is able to get its products and relationships to the customers through orchestrated and additional channels and tools) the communication channels of the company are. The development drives the companies to use several channels at the same time, among them electronic channels.

The question is how to allocate the resources in a manner to have more resources for the bigger profitability customers. Does it make sense to group the resources to them, since it is possible that the customers remain profitable all the same, and the limit profitability growth will be less, than if the resources would have been grouped around the smaller profitability clients? In other words the profitability available for

one unit is what's important and not the total profit. A decision supporting system is needed which's aim is the maximization of the CLV and not just its calculation. Optimization has to happen along several dimensions at the same time: along the segments, channels and time. The company has to maximize its resources not only on a company level but also on a segment level. It also has to define the optimal channel distribution of the resource as well.

Berger et al. indicate four important research areas in the field of customer management:

- more theoretical work concerning customer behaviour,
- analytical models to characterize the normative firm behaviour ,
- dynamic process studies concerning how customers react to marketing touches
- analysis to expose those factors which may influence the connections between marketing actions and CLV .

#### **3.4.4. The role of exchange processes in customer evaluation**

The connection of exchange theories and customer equity theories by way of thought puts the previously discussed limits and tasks to be solved into a different light. The exchange value theories, especially the social exchange theory form the important theoretical background of our research, and play an important role in the build-up of the research model.

In marketing literature value arises in connection with the work of Kotler (Kotler, 1972), its basis is that in the centre of marketing stands exchange and exchange means a change of values between two sides. In more detail Bagozzi has dealt with the process of value exchange (Bagozzi, 1975). Exchange value expresses that the given goods can be exchanged for other products. The goods must be useful so that they can be produced, used and exchanged. Both parties participating in the exchange actualize value in the exchange, however, this value means a different thing to each party. The producer wants to maximize his profit, so the value is closely connected to his own production costs and the revenue received for the sold product. The development of the production costs is influenced by the allocation of the resources available. The revenue then, develops depending on the exchange value of the product. For the consumer value is meant by the usefulness of the product, and there is the strive to maximize the usefulness of the product. Exchange theory lays

down good normative rules in connection with the exchange relationship, however, it does not explain why and how values originate. (Bowman and Ambrosini, 2000).

Mitev compares the characteristics of the exchange in the traditional and the social marketing and draws the attention to the importance of social exchange theory in marketing, which has taken the backseat in traditional marketing theory, and is not emphasized in the conventional marketing paradigms. (Mitev, 2005).

Jancic and Zabkar also draw the attention to the importance of the social exchange theory. According to the authors in order to understand the paradigmatic shifts in marketing which have started at the beginning of the 1990's, we have to go back to the basics of human exchange mechanisms.(Jancic and Zabkar, 2002). Though relationship marketing is regarded as a new concept, actually the connected sociological and socio-psychological theories mean the bases of the civilized exchange relationships between people too. In addition Jancic and Zabkar reason that behind the interpretation of marketing relations as management (Gronroos, 1996) there also lies the concept of exchange, but with paradigmatic shifts the concepts of relationship and interaction took centre stage in the focus of the research. They stress that the concept of exchange has to fully extend to the entire extent of values and resources. (Hirschman, 1987, Bagozzi, 1975), in order to understand the paradigmatic changes we must accept the basic theorems of the social exchange theory. Social exchange theory explains the basic mechanisms of relationship-building. (Gassenheimer et al., 1998, Houston and Gassenheimer, 1987).

Social exchange theory examines social relationships based on their obvious and direct profit (Homans, 1961, Thibaut and Kelley, 1959). According to the theory the individuals participate in the kind of exchanges which provide profit for them, and the relationships last until the participating parties are able to provide the resource valued by the other partner. Several such kind of resources are possible, according to Foa et al., major reward types are love, status, information, money, goods and services (Foa and Foa, 1980). The relationships of ten begin with the exchange of goods and services, however, close relationships are characterized by symbolic and particular exchanges, for example demonstration of emotions, in which the identity of the other party is important. Though the initial theories regarded the resources as changeable, according to Foa et al. certain types of resources can only be exchanged for the same thing – love can't be bought with money for example (Foa and Foa,

1980). The strength of the relationships depend both on the exchange of the costs and the profits, and on the personal judgement of individual alternatives. During the establishment of the relationships the exchanges become more frequent, varied and become bigger both in regard to their extent and risk. The short term defaults of reciprocity are tolerated much better in the close and long term relationships. (Levinger, 1980).

From the aspect of the social exchange theory certain individuals are capable of providing more valuable goods, since they possess more resources and more favourable exchange opportunities, while others cannot offer much, as they do not have other choices, they often participate in unfavourable exchange relationships and unsatisfactory relationships. Uneven bounds cannot be maintained for long. (Houston and Gassenheimer, 1987).

#### **3.4.5. The relationship between social exchange theory and customer equity**

Dorsch and Carlson (1986) make a connection between the social exchange theory and the customer equity concept; they examine the customer-company relationship using the transaction based approach. They do this on the basis that customer equity is built on tangible and intangible resources which the customer consciously invests into various companies.

Its difficult to identify and measure the investments of the customers, therefore the companies often ignore this factor. With this behaviour, they destroy the customer equity, and at the same time jeopardize their future. It started out from the traditional approach that the companies regard the existing customers as an endowment, instead of treating them as a kind of potential investor, who consciously place economic or social investments into the company (Dorsch and Carlson, 1996).

According to Dorsch and Carlson (1996) customer equity can be interpreted as the value of the resource which the customer invests into the company in exchange for a service offered by the company. The customer has to be looked upon as an investor, and the value of the investment is customer equity. Customer equity means mutual dependency between customer and company. The survival of the company depends on the customer equity which the target market is able to generate. The success of the company depends on how much it can fulfil the demands of the stakeholders. The

stakeholders are important because they provide the company with resources which are a must for the company in order to maintain its operation. The tangible part of the investments is laid down in the account and balance of the company. Alongside the investments of the owners and the creditors, however, the financially intangible part of the customers' investments is missing.

Intangible capital, as it is difficult to quantify, is not included in the company's balance, despite the fact that its value exceeds the value of the tangible assets. It can be interpreted as a kind of goodwill, however, generally goodwill only gets to be interpreted when there is as a change of ownership, and its source may be several factors (trust in the management, good positioning etc.) which are not exactly identifiable, therefore goodwill can be regarded as the adequate basis for the interpretation of customer equity.

A vital part of the concept of Dorsch and Carlson (1996) is the analysis of the types of exchanges. Basically, two types of exchanges are distinguished, the balanced and the non- balanced share. One of the types of non-balanced share is investment. The investment of the client in the company can be an economic exchange, or a social exchange. With the latter, the customers place insufficiently tangible resources into the company. Such a resource is for example the search for information. During the course of the social exchange there is talk of emotional and behavioural activity, which's result also happens to be a kind of „social” resource, for example friendship, loyalty, trust. As a result of it, the distance between the customer and the company lessens and the customer becomes the supporter of the company (see also: relational exchange) (Fontenot and Wilson, 1997, Dwyer et al., 1987). In exchange for the invested resource, the customer can make a sort of social claim towards the company. The company can also carry out a social investment, for example, if it values the person of the investor, and it expresses its interest in the well-being of its customers.

According to the types of resources the customer can invest into the company are: love, status, information, service, assets and money (Foa and Foa, 1980). Word of mouth advertising and recommendation belong into the category of service. We can group the resources into groups based on tangibility, uniqueness and exchangeability and we can phrase rules in connection with the exchange. One such example is for instance, that resources which are closer to each other can be exchanged more

frequently. In case a particular resource is not accessible, then it is substituted rather with a less unique type of resource. The exchange of resources, not only depend on the previously received resource, but also on the circumstances of the exchange. Love is rather more one to one, while the exchange of money can also happen between large groups. An alike rule is, that love, combined with another resource makes up part of the exchange, then the value of the other resource grows. This means that the company can increase its customer equity through showing high respect for its customers in every relationship.

Adapted into the customer equity concept, the social exchange concept, in case the company would like to gain an economic investment on the part of the customer, it must influence the behaviour of the customer with financial incentives. A disadvantage of these is that they can be easily copied and do not make for a long term connection. As a consequence of social investment a kind of friendship is made between the customer and the company, which withstands a certain degree of the pressure of the competitors.

The customer portfolio contains customers whose relationship is a one-off, and customers whose relationship is discrete or enduring with the company. Winning the customer over is more the result of external factors, than the result of the advantage offered by the company. The portfolio containing such customers does not provide long term profitability. Customer equity, which can be regarded as an investment, represents a non-balanced exchange, through the course of which the company gains many advantages for which it does not pay.

The customers also expect to receive a counter service for this investment. Based on the Foa and Foa resource theory, as reciprocation for the economic style investments into the company with rather tangible style (assets, money) reciprocities, while the social style investments are reciprocated with unique style (love, status) reciprocities. (Foa and Foa, 1980).

As most customer investments contain both types of reciprocities, the company has to produce the sort of customer equity, which contains both types of customer equity.

The customers reciprocate the efforts of the company likewise with similar types of resources. All in all the company has to adapt its sales strategy to its customer equity strategy.

The aspects of the theory of the social exchange are discussed in more depth in the presentation of the quantitative research.

#### **3.4.6. Other influencing concepts for the empirical model**

According to the balance theories man endeavours to achieve balance between the external and internal factors, and the endeavour to restore balance means motivation in this case. This balance is out of joint situation can be used to influence other people and to control their actions. The theorem of the endeavour for balance was created by Spinoza (1632-1677). This basic theorem was reconsidered by Fritz Heider who derived a theoretic system from (Heider, 1958). The starting point of this system is that the balanced, happy and pleasant states are have the tendency to subsist, while uncomfortable and unpleasant situations strive to achieve a shift from the state of balance.

Man strives to decrease the contradictions of subconscious content, which occurs when some new information is in contradiction with the previous content of the subconscious. According to people are motivated to meet information which are concordant with their attitudes, and avoid information which are contradictory with their attitudes, in order to stabilize a decision. Festinger was looking for the answer as to what happens when we have done something which is not in conformity with the values we generally believe to be important, respectively is it important to us for our thoughts not to be contradictory? To exonerate ourselves to decrease our feelings of unpleasantness we can choose from three strategies: We can change our behaviour, our environment or we look for knowledge which decreases the dissonance (Festinger, 1955).

Thus cognitive dissonance is a tension building state, which we try to dissolve by decreasing dissonance. There is a driving force which guides us towards cognitive consistence, this motivates the person to create harmony. When making a choice man always experiences dissonance, because he cannot totally be sure of things. When making a choice, the choice between attractive and unattractive alternatives must be differentiated.

If we must make a choice from attractive alternatives, the dissonance is all the greater when:



- the more high the stakes are,
- the fresher the decision is,
- the more attractive the other, rejected options are ,
- the options to chose from were high in number
- the more the rejected options differ.

In these cases dissonance can be decreased in the following ways:

- we avoid making a choice, which in most cases is not possible
- we overrate the chosen technique as compared to the others (recommendation) we take no notice about the disadvantages of the chosen alternative.

When we have to choose from non-attractive alternatives, the dissonance we experience is all the greater when,

- the more high the stakes are,
- the later we make the choice,
- the worse the chosen alternative is,
- the less the number of options to choose from was,
- the more similar the rejected alternatives are

In these cases we can get rid of the dissonance with the following methods:

- we underestimate our own freedom of choice and refer to duress,
- we overrate the chosen alternative, and underestimate its negative consequences (recommendation).

## **4. The grouping of the customer equity measurement models**

### **4.1. The grouping of the customer equity models based on the function of the model**

Gupta et al differentiate between three approaches in connection with the customer equity concept (Gupta et al., 2006b). The first one contains models which have tried to expose the effect of the marketing tools for the acquisition, retention or add on-sale of the customer. The second group has examined the relationship between the various components, for example between acquisition and retention (Thomas, 2001). Finally, the third group examined the relationship of the customer equity with the company value.

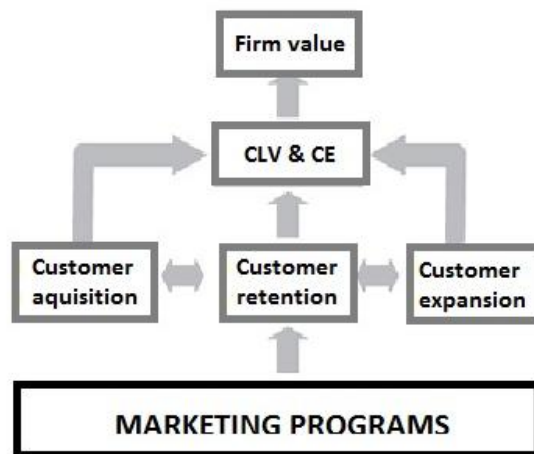


Figure 8. Conceptual Framework for Modeling CLV  
 (Source: Gupta at al., 2006 pg. 140.)

Jain and Singh (2002) define three territories where the customer equity concept can be applied. The first is the calculation of customer equity on the individual customers, these are the analyses which focus on their acquisition, retention and the profit produced by the customer. The second is the analysis of the customer-base: the analysis of the information, the estimation of the value of the future customer transactions, in order to define which segment the company must focus on, to expose the connection between the long term customer equity of the customer and the profitability of the company. The third is the application of the customer equity calculation in the managerial decision making, with the help of analytical models for example, the measurement of the effect of loyalty programs on the company and its profitability (Jain and Singh, 2002).

Mulhern (1999) also highlights the role of the customer equity measurement models in making both strategic and tactical decisions. Customer equity helps quantify the relationship of the customer with the company, and through it places it into a structured framework, and makes a basis for the managerial decisions, starting out from the fact that its worth directing the marketing resources on the most profitable customers. For example with the strategic decisions in the following cases: who are the customers, what are their characteristics, who are worth keeping in for a long period. In case of tactical decisions, for example: short term allocation of resources, the application of marketing resources and tools (Mulhern, 1999).

#### **4.2. The grouping of the models based on the measurement unit**

The models used for measuring the customer equity are comparable according to the starting measuring unit, that is to say, according to the aggregation level. Kumar and George (2007) break down the models into two large groups one is the aggregation method, which starts out from company level data, where the average customer equity is calculated and this is then multiplied by the number of customers. These approach from up to down makes it impossible to calculate customer equity for each individual customer. The other method is to make the customer equity calculation for each existing customer individually. This approach from down to up is the disaggregated method. The advantage of the disaggregated method is that in addition to knowing the individual customer equity is that we can calculate aggregated customer equity from this, which cannot be done the other way around. (Kumar and George, 2007).

Aggregated models recommend to increase the customer equity with the development of the company level strategy, while the disaggregated models specify customer specific variables as the main indicators of customer equity (frequency of purchase, contribution, market costs). In the interest of maximizing customer equity, the company must optimize its marketing activity instead of maximizing it. Kumar and George (2007) conclude that with the introduction of the disaggregated, individual customer equity calculating customer level strategies the optimization of the resource allocation is possible, as is the analysis of the frequency of purchase, and the development of balance between the costs spent on customer acquisition and customer retention. On aggregated level customer equity can be maximized with the development of certain factors of of customer equity. (Kumar and George, 2007).

The researchers of the topic have created models which are based on both of the approaches, between which many similarities and differences can be observed. The question is to what extents do the approaches differ from each other, do they measure the same phenomenon theoretically, and based on what criteria should we choose between them.

There would be a possibility to create an integrated model.

Due to the differences between the calculations, the calculated model is different in the case of every method. This is why it is important to use the same model when

comparing the customer equities of two companies. Kumar and George recommend the creation of a hybrid model which contains the models of various levels (Kumar and George, 2007).

Gupta et al. (2006) also separate these two ways of calculating the customer equity. The first starts out from non-aggregated customer data, and creates a model which predicts in advance the likelihood of retaining a certain customer. Another possible way is the use of aggregated data and the prognosis with the help of the diffusion or growth model how many customers the company can acquire. (Gupta et al., 2006b).

The use of the customer equity models greatly depends on the type of products and the types of customers of the company. The companies which have a few, and identifiable customers can profit from the measurement of individual customer equity, while the customers which have many small transactions can use the segmentation which is based on customer equity calculation. (Jain and Singh, 2002).

#### **4.3. Grouping of the customer equity models based on the applied calculation method**

Based on the calculation methods the customer equity calculation models can be grouped in several ways. First we have presented a possible grouping method based on the systemization of Gupta et al (Gupta et al., 2006a). Gupta et al. have divided the models into six groups, and these are the following: RFM models, probability models, econometric models, models based on retention, computer science models diffusion/growth models.

The first five belong more closely to the division according to calculations, the sixth can rather be regarded as a division according to the unit of the research.

The Recency-Frequency-Monetary value (abbrev. RFM ) models has been used in direct marketing for 30 years to define the target group in the interest of increasing the feedback rate. Previously demographic variables were used to estimate this, but research has proved that the data of the previous buys predict the future intention to buy better, than the demographic data do. The RFM models constitute customer groups based on the recency, frequency and monetary value of the purchase and allocate scores to the particular groups. After doing so, they choose the target groups for their touches based on the values they got. RFM models have several limitations. They only predict the behaviour for the next period. They aren't perfect indicators of

the behaviour they are based on, as they originate from genuine distribution. The third is, that they ignore that the customer's past behaviour may depend on the marketing activity of the company in the past. In studies they have compared the models used to measure customer equity with RFM models, and they have found that customer equity models are the more apt tools for measurement (Reinartz and Kumar, 2003a, Venkatesan and Kumar, 2004).

As the RMF models are scoring models their limitation is that they do not allocate a concrete monetary value to the customer equity. Fader, Hardie and Lee have shown how it is possible to extend the RMF models with the customer equity variables in a manner that their limitations can be overcome. (Fader et al., 2005).

In probability models the examined behaviour is the consequence of such stochastic explanations, which can be characterized along with latent behaviour variables and vary per individual. In the centre of the making of the model we look for a case which describes the examined behaviour, instead of us trying to describe the difference between the examined behaviour and the co-variables (regressive model). When calculating the customer equity the aim is to predict the duration of the stay of a particular customer with the company, and what the behaviour of that customer will be like. One of the first of such kind of a model is the Pareto/NBD model (Schmittlein et al., 1987), which describes a series of transactions, for a non-contractual relationship. This model is a good benchmark for the non-contractual relationship and in cases where the date of the purchases is determined in advance.

Many econometric models are based on the same principles which the probability models are based on. Especially those studies which used hazard models to measure customer retention, these are similar to the Pareto/NBP model with the difference that they use more general hazard functions, and incorporate covariates. Generally, these models examine customer acquisition, customer retention and add on-sale and combine them with a prediction of the customer equity. Gupta et al. (2006) have shown the most important models and their results on all three factors in literature.

Similarly to econometric models, persistence models based on retention also focus on the components of behaviour, these are: acquisition, retention and add on-sale. Persistence models are able to quantify the relative importance of several customer equity development factors, just like they are able to influence customer selection,

word of mouth advertising, and reactions of the competitor. This model is still in its infancy, primarily because of its large requirement for data.

From among the computer science models (CSM) marketing literature favours the structural parametric models like the logit, probit and hazard models. These are theoretically solid and easy to interpret. In addition the search for data in the enormous database of information technology, machine learning, and non-parametric statistics have developed models which emphasize projection ability (projection pursuit models, neural network models, decision tree models, spline based models). These models are able to model the customer churn better due to the many dimensions and great number of variables. The scatteredness of the data increases the inexactness of the projection, therefore the parametric and the non parametric models are less suitable for this purpose. Several empirical research shows that these CSMs give a better projection than the logistics regressive models. In customer equity calculation projection plays a very important role, so in the future these models would definitely deserve bigger attention.

## **5. The development milestones of the customer equity calculation models**

In this chapter, we first define the most important concepts connected with customer equity calculation. After that we present the calculation methods of the models most often referred to in literature, without aiming for a complete presentation, but emphatically detailing the problems which are relevant to and are connected to our research topic, primarily the questions of customer retention and the connection between customer acquisition and customer retention.

### **5.1. The presentation of the concepts used when calculating customer**

*Customer lifetime value (customer lifetime value: CLV) is defined in literature most often as the current net value of a profit generated by a customer in the future. One possible method of calculating the CLV is to estimate how long a customer will remain a client of the given company and discount the cash flow for this period. (Berger and Nasr, 1998, Blattberg et al., 2001a, Gupta and Lehmann, 2003, Jain and Singh, 2002).*

CLV models mean a systematic way to understand and evaluate the relationship of a company with its customers. Reinartz and Kumar name three reasons for the increase of interest in the CLV concept (Reinartz and Kumar, 2000a):

- generally increased interest in the processes of customer management,
- MSI has labelled this topic as a research topic of priority,
- There is little empirical research done in connection with CLV

The basic model for the calculation of CLV:

$$CLV = \sum m \cdot r^t / (1+i)^t = m(r/1+i-r)$$

$$\sum: t=1 \rightarrow \infty$$

mt: the margin value of the contribution sum generated by the particular customer during t period (year)

i: discount rate

n: the period of customer activity (year)

Rust et al (customer lifetime value, abbrev. CLV) define customer lifetime value as follows: the current value of the company profit generated from all future purchases of a customer takes the customer's side into account (Rust et al., 2005):

- how much does the customer spend when making a purchase and how much is the profit from that purchase,
- how frequently the customer makes a purchase,
- how likely is the customer to stay loyal to the company.

On the side of the company:

- the expenses of service provision to the customer,
- and the discount rate.

In accordance with the above the extended basic model of CLV calculation is (Gupta et al., 2004, Reinartz and Kumar, 2003b):

$$CLV = \sum (p_t - c_t)r_t / (1+i)^t - AC$$

$$\sum: t=0 \rightarrow r$$

wherein :

p<sub>t</sub>: the price paid by a customer in t period

c<sub>t</sub>: the cost of service provision to the customer in t period

i: discount rate

r<sub>t</sub>: the probability of repeated purchase „staying alive”

AC: the cost of customer acquisition  
T: the period of CLV calculation

Bell et al. define CLV as the value of the relationship of the company and the customer expressed in a number, which depends on the value of the purchases made by the customer, the costs spent on the customer, the discount rate, the „lifespan” of the customer as a customer of the company. Smaller changes in these factors can cause significant changes in the CLV. They would consider the establishment of such standards in CLV and CE calculation which would enable the inclusion of CLV and CE in the balance (Bell et al., 2002).

According to Kumar and Reinartz’s definition the CLV is such a non-aggregated index number, with which’s help we can select the profitable customers and can distribute the resources optimally. The current value of the future profit acquired from the customer during the customer’s relationship with the company. Similar to the discounted cash flow used in finance. The difference is that the CLV is calculated on the individual customer or a segment, in order to differentiate between the customers based on their profitability. The other difference is, that the CLV includes the possibility that the customer will abandon the company in the future, and go over to the competitors. (Reinartz and Kumar, 2003b).

*Customer equity (customer equity, abbrev. CE) is the discounted sum total of the company’s all existing and future customers, which provides additional information for the evaluation of the company. (Blattberg and Deighton, 1996).oldalszám!*

The application of the Jackson-style customer share typology is very commonly used in customer equity models, and in most related articles we can find a detailed reference to this, see: chapter 3.4 paragraphs 2-3)

Dwyer (1997) introduced the Jackson-style (1986) grouping into direct marketing and showed its role in CLV calculation (Dwyer, 1997). Dwyer draws the attention to the importance of up and add on selling and the difficulties of calculating the customer retention rate. Dwyer shows a practical example of both Jackson-style models in connection with a magazine (Dwyer, 1997). Jain and Singh (2002) list among the advantages of Dwyer’s model that it deals with the probabilistic nature of customer purchases. The weakness of the model is its significantly simplifying assumption, according to which the time period is fixed, sale and cash flow come up



in the same period, and at the same time in that same in every period. The willingness to purchase in each period is equal and only depends on the purchase made in the preceding period (Jain and Singh, 2002). For further applications of the Jackson-style (1986) customer distribution we will refer to at the presentation of each individual model in the next part.

## 5.2. The general basic model of Berger and Nasr (1998)

The aim of Berger and Nasr to create a general CLV calculation model based on concrete cases with general mathematical bases (Berger and Nasr, 1998). The model is simple, with its help, the basis of the customer equity calculation can be understood easily.

Berger and Nasr apply the customer retention model according to the Jackson-style typology's (Jackson, 1986) „lost for good” cases. They present five different cases, with different assumptions, in connection with the variables of the model. They illustrate the cases with numerical examples.

Their model starts out from three main assumptions:

- the purchase is made once a year,
- the annual retention cost and rate is permanent,
- the contribution sum is permanent on an annual level.

Thus the CLV (Kumar and George, 2007 pg. 158.) can be calculated with the following formula:

$$CLV = \{GCx\sum[r^i/(1+d)^i]\} - \{Mx\sum[r^{i-1}/(1+d)^{i-0,5}]\}$$

$\sum: i=0 \rightarrow a$

wherein :

GC: yearly gross contribution margin

M: promotional cost due in the middle of the buying cycle

n: the examined period of time

d: discount rate

r: customer retention rate

In case we absolve the assumption in connection with the constant retention rate, contribution margin, and promotional costs and assume that the buying cycle can be both longer or shorter than a year the formula turns out as follows: (Kumar and George, 2007 pg. 158.):

$$CLV = \sum_{t=0 \rightarrow n} \pi(t) \times [r^t / (1+d)^t]$$

wherein :

$\pi(T)$ : yearly profit per one customer

### 5.3. The model of Gupta and Lehmann (2003) meant for practical application

Gupta and Lehmann created their calculation model with the help of the Markov chain<sup>2</sup> (Gupta and Lehmann, 2003). The thus obtained relatively simple formula is rather data consuming, therefore several significant simplifications are made, which they partly empirically support with publicly accessible data: for example the assumption that the margin is constant in time. A further assumption of the model is that the customer retention data is also constant. This assumption in turn is also confirmed by Blattberg et al (Blattberg et al., 2001a), and explain it with the fact that customer retention rate is the most difficult element to predict in the calculation, so researchers often recommend the use of the constant rate. Gupta and Lehmann (2003) regard the examined period of time as endless, they think its not necessary to constrain it, because by taking the retention rate into account the probability of the customer remaining with the company continuously decreases. In case we would examine the definite period of time by transforming the customer retention rate into customer time we would over- rate the CLV. With these simplifications Gupta and Lehmann create a rule of the thumb with which's help companies can calculate CLV easily:

$$CLV = \sum_{t=0 \rightarrow \infty} m \cdot r^t / (1+i)^t = m(r/1+i-r)$$

$$\sum: t=0 \rightarrow \infty$$

wherein:

m: the value (constant) generated margin by the individual customers in t period in time (year)

i: discount rate

r: customer retention rate (constant)

In this manner the method of calculation of the authors is simplified to a margin and a margin multiplier, which's size is influenced by the retention and the discount rate.

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<sup>2</sup> See on the topic: Stewart (1994), Pfeifer & Carraway, (2000)

Generally, the ratio of the two rates is estimated at four. This way the CLV of one customer is easy to calculate by multiplying the yearly margin by four, with the help of minimal general information.

In case the margin shows a tendency to grow (growth: g) the formula changes as follows (Gupta and Lehmann, 2003, pg. 14):

$$CLV = m(r/1+i-r(1+g))$$

Gupta and Lehmann show with company examples how this simple rule can be used in practice. Based on the examples, they come to the conclusion that customer retention does have a very important role. CLV helps to define how much the company should spend on customer relationship management (abbrev. CRM) programs. It is not worth increasing the cost of customer service in general, instead, differentiated service must be provided to the different client groups. They recommend the calculation of CV primarily to companies where other types of capital are neglectable compared to the value of customer capital (internet companies).

#### 5.4. The calculation of customer segments in Blattberg et al.'s model (2001)

In the model of Blattberg et al. CE is the sum total of the return yielded from customer acquisition, customer retention and add on selling regarding the full customer portfolio of the company. (Blattberg et al., 2001a). With the help of the model the return generated by the new customers can be calculated, but the acquisition cost spent on them must be deducted. In the other part of the model the expected future return from the newly acquired customers is calculated, corrected with the retention rate (Kumar and George, 2007 pg. 160.)

$$CE(t) = \sum [N_{i,t} \alpha_{i,t}(S_{i,t}-c_{i,t}) - N_{i,t}B_{i,a,t} + \sum N_{i,t}\alpha_{i,t} (\prod \rho_{i,t+k}) X (S_{i,t+k}-c_{i,t+k}-B_{i,r,t+k}-B_{i,AO,t+k})(1/1+d)^k]$$

$$\sum: i=0 \rightarrow I$$

wherein:

CE(t): the customer equity of customers acquired in the t period

$N_{i,t}$ : the number of potential clients in the i segment

$\alpha_{i,t}$ : the probability of customer acquisition in t period of time in the i segment

$\rho_{i,t}$ : the probability of the retention of one customer in the  $t$  period of time in the  $i$  segment  
 $B_{i,a,t}$ : the marketing cost of customer acquisition in the  $t$  period of time in the  $i$  segment  
 $B_{i,r,t}$ : the cost of customer retention in  $t$  period of time in the  $i$  segment  
 $B_{i,ao,t}$ : the cost of cross selling in  $t$  period of time in the  $i$  segment  
 $d$ : discount rate  
 $S_{i,t}$ : the quantity of the sold product/service in  $t$  period of time in the  $i$  segment  
 $c_{i,t}$ : the cost of the product in  $t$  period of time in the  $i$  segment  
 $i$ : the number of segments  
 $t_0$ : the commencement of the time period

In the model the value of the segments is what has to be totalled, because here we calculate the CLV per segment, therefore, the approach can be applied rather more to groups and segments than individual customers. In case we use average customer acquisition and customer retention probability per one segment we can only calculate the CE on an aggregated level. Kumar and George's criticism about the model is, that its difficult to separate the indicators of the complex components, the calculation of the acquisition and retention probability pertaining to the future is problematic, the use of disaggregated data is recommended (Kumar and George, 2007).

### **5.5. Building brand switching into the customer equity modelling**

The purpose of marketing actions is to influence the perceptions and activities of customers. The starting point of the concept of Rust et al's customer equity concept is that the marketing touch should have a growth effect on at least one dimension of the customer equity. This then will have an influence on the perception of the customer, which in turn will influence both the CLV and the CE. In order to be able to handle both the acquisition and the retention of the customer in one model, the concept of brand switching must be introduced. Making a purchase again and winning over the customer from the competitors have a big effect on the profitability of the brand. The competition has an effect on the customers' decisions to buy. To calculate the CLV the buying probability of the company's own and brand and that of the competitors' brand must be defined. The previous CLV models did not take into account the competitors' brands, but if we take the competitive market's effects into account, we can get a more exact CLV value. Rust, Lemon, Narayandas' (2005) model in addition to this, can also handle two typical customer behaviours. One is when the customer abandons the company and then (migration model), the other is, when the customer is simultaneously a customer of several companies (share

of wallet). For the calculation of the CLV frequency of purchase, value (constant) the investment horizon and the discount rate must be given (Rust, Lemon, Narayandas, 2005, pg. 144-145.)

$$CLV_j = \sum (1+d_j)^{-t/f} v_j p_j B_{jt}$$

$$CE_j = \text{mean}_i(CLV_{ij}) \times \text{POP}$$

wherein:

$B_{jt}$ :  $j$  the probability of buying  $j$  brand during the course of purchase number  $t$

$p_j$ : average contribution  $j$  brand at one unit

$v_j$ : average quantity of purchase when buying

$f$ : frequency of purchase

$t$ : serial number of purchase

$T_j$ : the number of purchases, during the period of  $j$  brand

$d$ : discount rate

mean: average

POP: the total number of customers on the given market

The switching matrix is an important part of the calculation of the CLV, which's elements the company is able to influence. If the company increases the level of service, the result of that increase will be a higher customer retention rate. Marketing literature uses logistic regression to model the choice between the competing brands (Guadagni and Little, 1983).

The logical course of the calculation of customer equity: customer equity is the sum total of the CLVs projected on all present and future customers. CLV is defined by the brand switching matrix to a significant extent, which depends on the usefulness of the brand for the customer. The usefulness of the brand depends on the dimensions of the CLV. To be able to measure the results of the particular marketing touches, we have to measure up what effects the particular customer equity dimensions have on the usefulness perceived by the customer. This can happen with an estimation based on experience, taking similar previous cases as bases, with the help of a test market or a partial roll out on the market. The authors use information both about their own brand, and the competitors' brand, in the case of the model which takes into account customer acquisition and retention and brand switching as well.

With the help of the model the individual CLV can be calculated to the elements included in the model, which's average means the value of an average customer of the company. Kumar and George list this model among the aggregated models,

because it calculates an average CLV and not an individual one. (Kumar and George, 2007).

In the model the probability of a customer buying a product gets calculated from the CLV of the customer, which however, only applies to the customers included in the sample. Therefore in this model the sample selection brings up questions. As the CE of the company is calculated on the basis of the average/mean of the customers included in the sample, CE greatly depends on the sample selection and the size of the sample.

### **5.6. The problem of identifying the active customers**

The aim of Schmittlein et al. is the identification of the company's still active customers (Schmittlein et al., 1987). Defining the number of active customers is difficult, because the majority of customer does inform the company about when he/she is going to abandon it. Two information are at the disposal of the company, one is the activity of the customer in the past period, and the time elapsed since the last transaction of the customer, these are what the authors use when constructing the model. Regarding the distribution of the model's parameters they assume Poisson and Gamma distributions. They also present the way the model works with mathematical calculations. The conditions for the application of the model are: the time at which a customer becomes inactive is unknown, the purchases can be made at any time, and a customer can become inactive at any time. A disadvantage of Schmittlein et al's model is that it is very data consuming.

Verhoef and Donkers present the probability of a customer possessing a product with an ordinal or a binary response model that employs a probit link function. They used socio-demographic indicators to project the possession. (Verhoef and Donkers, 2001). This probability multiplied by the profit equals the potential value of the product. This model is primarily suitable for the projection of a contractual relationship, where the yields can be exactly calculated in advance, and where its important to know whether the customer has the intention to buy in the future. In a non-contractual relationship the purchases are made at irregular times and the customer can break off the relationship at any time. The calculation in the model happens at an individual level.

## 5.7. The connection between customer acquisition and customer retention

Companies primarily place the emphasis on the existing customers and their retention, and do not take into account that the effect of the characteristics of the customer acquisition process has an effect on the retention of the customers. (Blattberg and Deighton, 1996). Blattberg and Deighton (1996) created an aggregated model in which they search for a connection between customer acquisition and customer retention with the help of customer equity.

$$\text{Customer equity} = q \cdot m - A + a(m - R)/r [r^1/1 - r^1]$$

$$r^1 = r/(1+d)$$

r: yearly customer retention rate

a: customer acquisition rate with a given (A) customer acquisition cost

m: contribution margin

A: the cost of customer acquisition as a possible

R: customer retention rate per customer

d: yearly discount rate

The model examines how the customer equity yield can be expressed, as a difference between the acquisition and the retention costs, and the emphasis is on the optimization of acquisition and retention costs. The model highlights the problems hidden in the income statement, and puts the customers into the centre of strategic thinking. Its disadvantage is that cash flow is constant in the examined time period, and is actualized in every period at the same time. In addition, the model does not connect customer acquisition and retention to the maximization of the CE.

Thomas also makes the same basic assumption that customer acquisition does have an effect on customer retention. Its aim is to present those mistakes which result from the assumption that customer acquisition and customer retention are processes which do not depend on each other. (Thomas, 2001).

Thomas (2001) obtained these data from a membership database consisting of rather special airplane pilots, from which 2300 pilots, who had to renew their membership annually were selected at random. They found the Tobit<sup>3</sup> (Tobit model with selection) model appropriate to create a model. The model is characterized by a rather strong methodology background, complex mathematical deduction, the presentation of the practical consequence and the conclusion seems too little.

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<sup>3</sup>Named after the Tobin, the creator of the model, see in more detail: Tobin, J.: "Estimation of Relationships for Limited Dependent Variables", *Econometrica* 26, 24-36. (1958)

Venkatesan and Kumar (Venkatesan and Kumar, 2004) deduce the future purchases of the customer from the characteristics the customer made in the past. The „always share” approach (Jackson, 1986) is used here.

wherein:

$$CLV_i = \sum CM_{i,y} / (1+r)^{y/frequency_i} - \sum \sum_m C_{i,m,l} \times X_{i,m,l} / (1+r)^{l-i}$$

$CM_{i,y}$ : expected contribution from customer number  $x$  on the occasion of  $y$  purchase

$r$ : discount rate

$C_{i,m,l}$ : marketing cost of customer number  $x$  in channel  $m$  in 1 year

$X_{i,m,l}$ : the number of customer contacts with customer number  $i$  in channel  $m$  in one year

frequency: the expected buying frequency of customer  $i$

$n$ : number of projected years

$T_i$ : the expected number of buys made by customer  $i$  until the end of the planned period  $i$

Source: Kumar and George (2007) p. 161.

The various company specific factors (communication channel) and customer characteristics (involvement, switching cost, previous behaviour) are first there as the influencing antecedent of frequency and contribution, then are being shown with the right models. General gamma division is used to model the time elapsed between purchases, and regression calculated from the panel data for the calculation of the contribution. With the help of this model the sensitivity of the customers in connection with the marketing channels used in marketing communication can be examined.

## **6. The extension of customer equity models with the effect of word of mouth advertising**

There are many industry branches, where most of the customers are acquired through recommendation. Both research and practical experts have long been aware of the special significance of those customers, who convince others about the use of the service or the product.

*Word of mouth a informal communication with positive or negative content between the customers about a company, its product or service. (Tax et al., 1993) (pg: 74).*



*Recommendation is one form of positive word of mouth advertising, which the customer tells to somebody about a product or a service (Helm, 2003) (pg:124).*

Several research connected with customer equity concluded that the value of a customer depends on the value of the other customers (Algesheimer and Wangenheim, 2006). Often the effects of the customer networks are strong, and by ignoring these we underestimate the customer equity. Hogan et al. have shown that the effect of word of mouth advertising and the direct customer network are significant in online marketing (Hogan et al., 2003a). Villanueva et al. have proven that the customer acquired with the help of word of mouth advertising is twice as profitable for the company than the customer acquired with the help of traditional marketing tools(Villanueva et al., 2008).

As network effect is the typical effect of word of mouth and buzz, the effect of marketing is ever stronger, it is important to understand these phenomena and their influence on the customer's buying behaviour and customer equity. Often indirect network effects occur as well, therefore researching the theory of social networks is very important, in getting to know these effects (Newman, 2003, Watts, 2004, Winship, 1996).

From the aspect of the development of organisational buying the interpersonal influences are very important on the perceived risk of the customer (Doyle et al., 1979, Sheth, 1973). Henthorne and LaTour examined how the internal and external informal factors within and between the organisations, influence the perceived risk. The conclusion was that the level of perceived risk is modified with the involvement of the information resource. The extent of the expertise of the resource (experience measured in years) influenced the perceived social risk. Negative informal influence also had a significant effect on the dimension of all three risk factors (Henthorne and LaTour, 1992).

Webster examined what kind of differences there are as regards the word of mouth activity of individual and organisational customers. Webster concluded that the sales person has a key role in obtaining information. No one apart from the sales person is asked for information because the sales person is regarded as the most competent and trustworthy source. Informal communication on business markets is less emphatic; however, the use of satisfied customers as a reference was shown. (Webster, 1970).

The role of word of mouth advertising is especially important in the case of services, due to the higher uncertainty in connection with the purchase of the service and its result. (Wheiler, 1987, Zeithaml et al., 1985).

Not only older articles (Anderson, 1998; Dick and Basu, 1994; Hogan, Lemon and Libai, 2001) support that the available CRM databases are unsuitable to manage the effects of word of mouth advertising, we were able to find reference to this in recent literature (Algesheimer and Wangenheim, 2006, Armelini and Villanueva, 2010, Kumar et al., 2010), and the results of our own quantitative research supports it as well.

Word of mouth advertising has three different effects that we can measure: the effect of the recommendation on the recipient, who we motivate to buy yet another product, or to recommend that product further, to the person who made the recommendation, on whom the recommendation „retroacts”, it influences the customers behaviour, and makes the customer more loyal to the company. (Tax et al., 1993). In the end, the recommendation has an effect on the company through acquiring new customers for the company. (Wheiler, 1987, Wilson, 1994).

### **6.1. The presentation and evaluation of the models created to define the value of recommendation**

Herrmann and Föderer calculate the long term recommendation value of car buyers (Herrmann and Fuderer, 1997). Three dimensions are taken into account: the number of the recipients of the recommendation, the intensity of the recommendation and the quality of the recommender. Building on a dynamic investment calculator, the value of the recommendation is the sum of that cash flow which can be attributed to the recommender. The value of a customer, according to this model, is none other than the discounted CLV of the customer acquired by the recommendation of the recommender (n), minus the customer acquisition cost. The CLV contains the following factors: re-purchase behaviour, decreased price sensitivity, cross selling, recommendation behaviour.

According to the creators of the model, the data must originate from projections, and not from individual questionnaire surveys. Uncertainties in connection with the model: uncertainty of projection, traceability problem, a new purchase in itself

cannot be attributed to a recommendation alone, no time limit is built into the model, lack of empirical testing.

Anderson's aim is the better understanding of the connection between customer satisfaction and word of mouth advertising, with the help of the utility-based model. (Anderson, 1998). In the empirical model Anderson compares two samples taken from two countries (USA, Sweden). The initial presumption was that the level of satisfaction is higher in the USA, and the level of word of mouth activity is lower than in Sweden. However, the connection between the extent of satisfaction and word of mouth seemed to be the same in the case of both samples. Research results have shown that the level of general satisfaction is lower in Sweden, while the word of mouth activity is bigger. The correlation between the two variables is 0.07 in Sweden while in the USA it is 0.02. The assumption, that the connection between satisfaction and word of mouth is not of linear nature, but is an asymmetric U-shaped curve, was proven. The word of mouth behaviour of the very dissatisfied customers is higher than that of the satisfied ones, however, the widely acknowledged view according to which the dissatisfied customers are much more active from the aspect of word of mouth than the satisfied customers, the measured differences failed to verify. The level of satisfaction and word of mouth significantly differ from each other in the sample, however, the pertaining null hypothesis to the fact that the connection between the two variables are the same, could not be rejected.

Cornelsen and Diller's model is based on the study of consumer behaviour, and encompasses the efficacy factors of recommendation behaviour (Cornelsen and Diller, 1998). The model separates the two main elements of recommendation from each other: industry branch specific recommendation rate and individual recommendation's potential. The recommendation potential is defined by three factors: the size of social network, customer satisfaction, and opinion leadership role. Cornelsen tested this model in connection with car purchases empirically as well. The strength of the model is the study of the psychological and sociological factors. The model is made uncertain by the fact, that with the change of the weights, the value of the recommendation also changes. The question arises as to why the authors have left out variables such as involvement, perceived risk, etc. from the model. For the calculation of the model wide ranging and complex uptake of data is necessary.

The model of Villanueva, Yoo and Hanssens (2006) starts out from the basic assumption that the method of acquisition has an effect on customer retention. (Villanueva et al., 2008). It does not directly measure the CLV, it measures the contribution of the customer to the CLV instead. The authors compare marketing touches as the more expensive, but quicker customer acquisition method, and word of mouth, which is slower, but cheaper.

The authors use the three variable vector autoregressive model (VAR), these variables are: the number of customers acquired through marketing touches, the number of customers acquired through word of mouth and the performance of the company. In the empirical research they have examined an internet company, which provided the free web hosting for the 70 week long observation period. During the examined period they measured the number of registrations, and the frequency with which the site was being used, and they have examined from where the responders learned of this opportunity (traditional marketing or word of mouth). They were interested in which customers will be willing to pay for the service after the expiry of the free of charge period.

In the short-term the customers acquired through traditional marketing tools contributed to the company's performance to a bigger extent (number of logins) than the customers acquired through word of mouth. However, in the long-term (after the 10th week) it was shown that the cumulative effect of word of mouth is twice as much as that of the marketing channels. Furthermore, the effect of marketing tools wears off after three weeks, while the effect of word of mouth lasts for six weeks. These effects in time are important, because they show that focussing on short-term customer acquisition leads to the non-optimal distribution of resources. The authors have also shown, that those customers who were acquired by the company through word of mouth tend to generate further word of mouth than the customers acquired through other marketing channels. They carried out a market simulation in order to quantify the results, which showed, that in the long-term (10 weeks) the customer acquired through word of mouth generates twice as much yield (in present value). The reason for this primarily is the fact, that the customer acquired through word of mouth stays longer with the company, and thus generates more value for the company. In case we would also take into account the costs of customer acquisition in the comparison, the difference would be still more striking. Villanueva, Yoo and

Hanssen (2006) have come to the conclusion that the customers acquired through marketing touches are more profitable in the short term, and though customers can be acquired through word of mouth more slowly, these may be twice as profitable for the company.

Verhoef et al. (2002) have examined what kind of effect the affective and calculative dimension of satisfaction, trust, and commitment, and payment equity have on the recommendation behaviour of the customer and on the services made use of by the customer, and the influencing factor of the age of the relationship on these correlations. They have surveyed 2300 clients of a Dutch insurance company by phone, and have evaluated the results with the help of various regressive estimations. They could not find a significant correlation between the age of the relationship and payment equity, and the moderating effect of the age of the relationship could not be shown either between the examined variants and payment equity. However, a significant positive connection was shown between payment equity, trust, satisfaction and emotional committment. (Verhoef et al., 2002).

Verhoef and Donkers (2005) have examined the method of customer acquisition on customer loyalty and cross section buy behaviour. Four different customer acquisition channels (mass media, direkt marketing, web page and word of mouth) have been investigated by different insurance services. In the research positive word of mouth did not prove to be an outstanding explanatory factor for loyalty in any of the areas, it showed average or less coefficients when compared with other channels. (Verhoef and Donkers, 2005).

In his doctoral dissertation Wangenheim examines in an empirical research the factors which influence recommendation and the effect of recommendation on customers in both individual and organizational relation on the electricity market (Wangenheim, 2002). Wangenheim examines several variants, the most important factors among these are the number of recommendations received (negative, positive), customer satisfaction, situative involvement, loyalty, and in case of individual customers product involvement, loyalty, in case of organizational customers the significance of the product (product significance) and interest in the product (product interest).

Wangenheim's results do not show a significant difference between individual and organizational customers as regards the correlations between recommendation activity, satisfaction and loyalty. In the case of both individual and organizational customers Wangenheim came to the result that those who receive more recommendations in connection with a company, recommend more often themselves, and in case of positive recommendation are more satisfied with and more loyal to the company.

The aim of Wangenheim and Bayón's (2007) model is the definition of the recommendation value of a given customer, by estimating how many recommendations the customer has made during the course of a  $t$  period. (Wangenheim and Bayón, 2007).

This model has the most complex mathematical foundation from among the examined models. On the one part it has to be estimated how many recommendations occur during the given period, and on the other hand the so-called conversion rate has to be calculated, which shows what ratio of the recommendations actually turn into purchases. For the projection of the number of recommendations Wangenheim and Bayón recommend the Poisson model (zero inflated) and a logistic regressive model which defines whether the recommendation happened or not. The variables used for the projection of the recommendation: satisfaction, situation involvement/the importance of the purchase, marketplace involvement and the innovativeness of the customer. A Binominal Logit Choice Model is used to determine the conversion rate. For the determination of the efficiency of the recommendation two variables are used, the expertise of the recommender, and the similarity perceived by the recipient. The model was tested on the German electricity service provision market in B2C and B2B relation as well. Besides the mathematical complexity of the model, data collection may cause difficulties. The conclusion of Wangenheim and Bayón is interesting, according to it the behaviour of the newly acquired customers is more active than the behaviour of the old customers. This is contradictory to the results of previous researches, according to which the number of recommendations grows with the passing of time, and it questions whether it is really cheaper to retain a new customer, than to acquire a new one.

Hogan et al. have used the diffusion model detailed in chapter 3.6, for estimating the customer equity of a lost for good customer. (Hogan et al., 2003b). They reasoned

that when the company loses a customer, the company not only loses the profit generated by that customer, but also the word of mouth effect generated by that customer. According to their estimations the direct effect of losing a customer in the field of online banking is 208 USD, if the indirect effects are included as well then it is 850 USD.

Schmitt et al.(2011) have examined nearly ten thousand customers of a leading German bank for three years. Their aim was to prove, that the customers acquired with recommendation differ from other customers in aspect of the contribution margin, customer value and customer retention as projected on one customer. They derived the theoretical basis of their hypotheses from the recommendations applied by head hunters (human resource developer) listed in sociology and economy literature. They highlight two factors, these are better matching and social enrichment. Better matching stems from the fact that the recommenders are fit better with the company than the non-recommenders, while social enrichment means the third person connecting the company and the employee. Schmitt et al. reason that the recommendation management programs used for seeking the employee and for seeking the new customer work with similar mechanisms, as they have three traits in common, these are: active management, use of existing relationship capital and offer of reward with the risk of the abuse of this. Both processes involve high involvement decisions which carry an acceptable amount of risk taking. To estimate the difference between profit rate and customer value regressive estimation was used, and the Cox proportional hazard model was used to estimate the retention rate. Schmitt et al have proved that the customers acquired with recommendation are more profitable, loyal and valuable in the short term than customers acquired with other methods. (Schmitt et al., 2011).

Schumann et al (2010) have examined the effect of the received positive recommendation on the perceived service provision's quality in 11 countries with different cultures on bank customers, in order to prove the different effect of recommendation in the different cultures. The research showed that recommendation has a positive effect on the quality of perceived service provision and the effect is influenced by the uncertainty avoiding trait of the given culture. In cultures where higher uncertainty avoidance was typical, the effect of recommendation proved to be stronger (Schumann et al., 2010).

Kumar et al (2010) have created a four step Customer Referral Value (CRV) method and have shown the importance of the measurement of CRV in addition to CLV in the interest of adequate customer segmentation and positioning. They have carried out four field experiments at financial service providers and in the small trade industry branch. In the first three experiments they have shown the positive effect of the measurement of the CRV on profitability, the aim of the fourth experiment was to expose the behavioural traits which lead to more active recommendation. They have concluded that the connection between cost and CRV is a U shaped curve, that is decreased costs are compensated by more active recommendation behaviour by the customers. With the increase of time elapsed since the last purchase (recency) the number of recommendations decreases. The increase in the intensity of cross buy behaviour also leads to the increase of recommendations. The increase of product returns also leads to the customer-company relationship becoming more close, and increases the number of recommendations. They have also shown that those who have previously recommended the company, are also highly likely to do so in the future (Kumar et al., 2010).

The examined models differ greatly from one another both in mathematical foundation, and in empirical background as well. The models make the more or less complex calculation of the recommendation value possible, but with the change of the variables the calculated amount also changes obviously. For the calculation of a „real” recommendation value the model should be much more complex. It should, for example include the snowball effect when a person receiving the recommendation does not make a purchase, but goes on to recommend the product further. Furthermore it is important to include the costs in the model, which is only done in the first model. All in all, it can be said that despite the fact that both the researchers and the practicing experts emphasize the importance of word of mouth advertising in the set of tools of marketing, there are as yet few models available which are also supported by empirical research. It is the job of future researches to show, how it is possible to obtain all necessary information, to find the appropriate model for the examination of the relationship between the manner of customer acquisition and customer equity, in the interest of making the effects of the set of marketing’s tools comparable with the help of the calculation of customer equity.



## 7. The presentation of the qualitative research

The primary research was preceded by a secondary research, which's aim was to present the theoretical background of the topic in detail, based on the national and international literature, and in addition, to get to know the field of the primary research thoroughly. This comprised of: the analysis of the secondary resources about the examined market, industry branch and the company: the analysis of the materials of the company related to marketing and communication from the aspect of value and customer orientation.

The primary research consisted of two parts a qualitative and a quantitative stage. The characteristics of the qualitative research were the following.

### *Applied methodology:*

- 8 qualitative interviews based on the enclosed interview draft (2010 first semester)
- unstructured, personal, informal talks with the aim of getting to know the information and explore the opinion, attitude and motivations about the questioned topic
- application of „mosaic technique” by which the putting together and the integration of the information collected within a particular company is meant,
- the duration of the interviews is approximately 60 minutes per individual

### *Characteristics of sample:*

<b>Company's activity</b>	<b>Company's ownership relationship</b>	<b>Company's size</b>	<b>Number of interviews</b>	<b>Competence of interviewed persons</b>
bank (b2b and b2c)	Hungarian	large	2	marketing and control director
insurance company (b2b and b2c)	multi	large	2	marketing and control director
logistics (b2b)	multi	medium	2	controlling director
Production of sewer water purifying equipments(b2b)	Hungarian	medium	1	controlling director
Metal processing industry (b2b)	Hungarian	small	1	company director

Table 1: The characteristics of the qualitative sample

*The aim of the qualitative research:*

The examination of the relevance of the research topic and the marking of the focus of the research topic on the basis of company practice. Based on the explored information we wished to get a picture of the characteristics of customer value management which are applied in Hungary, and about the applied customer value models, pointing out the specifics of the local situation.

*The focus of the research examination:*

- the exploration of the operation of the customer value management system
- measurement of customer value, the building on each other of the applied marketing tools and market segmentation in the interest of maximizing customer value
- familiarization with the customer value models both in B2B and B2C directions the comparison of the customer value characteristics with both client groups (characteristics of database, variables of model, calculation methods)
- getting to know the decision making process related to the selection of marketing tools
- getting to know the market segmentation methods



When developing the framework model we have relied on the customer value concepts of Bell et al (2002) and Berger et al (2002) respectively, which we have presented in detail in chapter 3.5. The factors examined in the model were:

*The company's environment:* all those external factors, legal, political environment, technological facilities etc. which have an effect on the company's activity, operation and success (secondary source: marketing and industry branch characteristics and data).

*The characteristics of company activity and culture*

The activity scope of the company: the exact definition of the manufactured and service provision

- The structural build-up of the company: organizational diagram, the role which marketing plays in the company hierarchy
- The company culture: company characteristics of value and customer orientation
- (secondary resources: the materials, reports, analysis of previous marketing promotions which are at the disposal of the company)

*Customer value orientation:* familiarity with the concept, with the role which it plays in marketing, and its significance, customer value estimation, characteristics of measurement

*Operation of CRM:*

- up to the minute data bases at disposal
- the use of data bases for marketing purposes
- the use of data bases for measuring customer value
- dedicated employees
- expertise

*Operation of customer value management:*

Its purpose is keeping an eye on the maximization of customer value.

Its tool is the regular customer value measurement which enables:

- the measurement of the efficiency of the marketing activity

- the comparison of marketing's set of tools
- the value based segmentation of the circle of customers
- the application of optimal marketing mix on the segments

*The measurement of the effect of marketing activity:*

- is customer value management applied (what is used instead of it to measure the efficiency of marketing, as the basis of market segmentation)
- circle of those involved (decision making system, execution of calculations, exploration of relationship system)
- what kind of measurement tool is used
- how often changes are measured
- what the results are used for
- how useful the system is thought to be
- *The characteristics of the type of exchange perceived by the company:*
- the exploration of the economic element of the exchange
- the exploration of the social elements of the exchange

## **7.2. The analytic presentation of the results of qualitative research**

Below the most important results of the qualitative research are summarized. The analysis contains the relevant thoughts which arose during the company interviews and talks and their interpretation, which have supported the relevance of the research theme and led as the main train of thought to the phrasing of the quantitative research questions.

It is worth breaking down the analysis into two parts according to the size of the companies. The examined small company operates on a business-to-business market, has its own line of products and also carries out supplier activities.

Due to its size, the company knows all its customers well, and also has a good personal relationship with the majority of the customers. The aim of customer evaluation is primarily the foundation for a balanced and secure operation and planning. Besides evaluating the customers with the help of the RFM type model,

frequent personal interactions enable individual evaluation, the taking into account of individual customer characteristics and demands. Great emphasis is placed on innovation value, which is though not quantified, but is taken into account nevertheless when preparing a quote to see how open the customer is to the application of innovative, new technologies.

During the course of the interview we could hear an example about how a previously unused technology was developed with the help of a customer, which made the given project a loss due to the many invested working hours, but the company was able to make good use of it in other projects after all.

Besides all of this recommendation value has an emphasized role, because the marketing activity of the company is very limited, with a few exceptions, the acquisition of the new customers happens by way of recommendation. „The Hungarian market is small, everyone knows everyone, if a small series is needed, or it has to be thought out how to manufacture a part, we are recommended, this is how we make a living."

„It was interesting to track how one of our satisfied customers did a totally voluntary ad campaign, who with the help of his international circle of friends told everyone about us from the USA to New Zealand."

It turned out during the talks with the management of the small enterprise „that the life of the enterprise is about” to recognize those customers who are the most important to them. They would not like to grow above a certain size, so they can't take on every „petty little” job, when it comes to these, they try to recommend someone else instead, they have been forced to select among the commissions. This holds good for the existing, as well as the potential partners. With the existing clientele, given that we talk about a small enterprise here, they are able to take into account in practice the difficult to quantify elements of customer value, as the information is collected in one hand. The manager knows the partner well, and understands clearly the value that is difficult to measure in a monetary manner in the short term, in addition to this he sees the corresponding sales values precisely, and comparing these two he can make a decision about the given partner.

With the larger companies, where this information are not in the hand of one person, but are divided under the particular functions (product development, relationship

management, controlling, finance, marketing) it is very important to have all the values in an integrated system which must be taken into account when making a decision (whether that is in the case of the intake of a passive order, or in the case of an active marketing action).

It is typical of the medium and large companies that they deal with their biggest company buyers in an emphasized manner, and treat them entirely separately. In the case of small and medium companies one of the most important driving forces of the development of customer value management is considered to be that with the help of information technology the companies are capable of collecting a huge quantity of customer data. This enables them to calculate with the explored preference data and not the intention to buy. There is no need for a sample, because the full customer database is at disposal. The sophisticated models transform the information into customer profile, „customer insight" and theoretically the development of personally tailored marketing programmes becomes possible. The questioned companies use various RFM type models, with which's help they can make predictions about the future behaviour of customers based on the existing data. However, these databases do have their limitations as well. The databases contain the purchase data of the customers, however, they do not know, or they know only partially the factors in the background, the driving forces, and those things which led to the purchase of the product. There is a possibility to put these factors into the spotlight with the help of a questionnaire survey. Another limitation of the database is that though they know what transactions took place in their own company, they have no information whatsoever pertaining to the competition (share of wallet). With a questionnaire survey it is possible to obtain information about this as well. A drawback of the questionnaire however is, that we only get information about the chosen sample. An important question is how we can integrate the information obtained with the questionnaire into the complete database. From the interviews it became obvious that further development would be needed in this area, however these have been stopped in several places due to constrictions in the budget as a result of the economic crisis.

With the multinational companies it was mentioned regarding the globally optimal decisions connected with the acquisition and retention of customers that when examined from a broader business perspective it is not at all sure, that these decision are the optimal solution in the local relation. Models are needed which evaluate a

particular portfolio of the customer, and create rules which lead the marketing manager in the maximization of the value of the portfolio, instead of focussing on the maximization of the customer value of the next acquired customer.

The estimation of customer value based on the customer value model can be used to predict the behaviour of the customer in the future.

These are generally micro models which use non aggregated, individual level customer data. They use the results for the selection of customers, positioning and campaign management. These data can be created as aggregated demand prediction for the company. It can also be believed that they use aggregated macro demand models to predict the purchases. It happens that company marketing managers use non aggregated micro models, while other managers use aggregated macro models to predict demand. The problem is that the two approaches do not always give the same result. The reason for this is the different methodology and the involvement of the different variables in the model. Consequently the top management sees different data from top to bottom and bottom to top calculations. The development of such kind of models would be important which would convey these differences. One possible solution would be the creation of such models which integrate the micro and macro data.

An incentive system would need to be developed which would help the whole company with the globally optimal solution: Generally there is a dual level marketing management within the company, and on the lower level there is a separate person responsible for the acquisition of the new customer and the retention of the old customers. In case both maximize independently of each other, the solution will not be optimal for the company. For the upper level manager a resource allocation problem is created, that is how to make such a correct incentive system for the lower level management which ensures that the use of the budget on the whole will be optimal for the company.

Similar problems can arise in case the optimization of the customer value gets into contradiction with the optimal strategy of finance. For example to optimize the customer value fewer big customers would be needed, however this means a higher risk for the company. It would also be important to quantify the risk in the models.



The individual level definition of costs may cause a problem. Generally at the company the definition of the cost happens at a function level. Marketing managers have a bigger insight on the revenue side than on the cost side. The various types of costs cannot be quantified in the same way. For example customer acquisition costs are much easier to quantify than customer retention costs. One possible solution might be the use of the advantages of Activity Based Costing.

Several of the interviewed persons have stated that the models used would need a review in the light of the new technologies, and knowledge would need to be integrated within the company at a higher level. It would be worthwhile for example to involve demographical variables and variables related to product use into the models, likewise motives for making the purchase and the effect of marketing actions. The data bases at disposal are not optimally used and customer value is not used directly to support marketing decisions.

Some are of the opinion that the databases at disposal are not used in an optimal manner, the primary decision factors are still intuition, experience and financial options.

The benchmark of marketing actions in the case of the surveyed bank and insurance company is still the sales value, customer tracking is missing, and customer value is not used directly to support the marketing decisions.

The involvement of the soft difficult to quantify factors (innovation, information value, recommendation value etc.) into the model is not even characteristic of the large companies, in case such customer data do exist based on previous research and action, they are not at disposal in a useable manner for to make marketing decisions. The interviewed persons did agree however, that in the future these factors will need to be taken into account if the companies wish to keep their market positions.

It was stated further that well founded statistical and professional (marketing) would be needed when developing the models. When calculating the customer value many factors need to be taken into account simultaneously, and it is difficult to harmonize these. The models based on databases are even less widespread. Models like for example the logistic regression model, only work well if the occurrence of the phenomena is relatively frequent.

On the whole we can deduct the following based on the result of the qualitative

research:

- basically companies judge the profitability of the customer through the revenue actualized by the customer
- the product and customer care costs are taken into account only partially,
- regarding the question of customer potential, they are mostly interested in cross selling potential, and have no interest in what profit the consumers would bring the company as a reference or a source of innovation ,
- modelling primarily extends to easily numerable factors and its occasionally used in the market segmentation to support the decision for more significant marketing actions (e.g.: the launch of a new product),
- the continuous customer value monitor for the quantification of the result of the marketing actions was not typical among the companies participating in the interviews, the reasons for this were the lack of technical developments for the management of databases and problems in human resources they concluded,
- from the customer value data they only deduct specific strategies in an ad hoc manner the strategic trait is not widespread with the analysed companies,
- the companies regard the use of customer value management as an important and to be developed area,
- the reliable and long term measurement of the result of marketing activity is thus not yet present in the company practice of the interviewed persons, however its necessity is seen, just like they see the involvement of the soft, behaviour based variables into the customer value measurements as necessary.

## **8. Quantitative research**

### **8.1. The purpose of the research**

The purpose of the research is the more exact understanding of the long term effects of the set of marketing tools, through the examination of one of the difficult to quantify factor of customer value models- and that is through the examination of recommendation.

**The contribution of research to science means the deeper understanding and development of the customer value construction. We focus from among the non-tangible elements of customer value on the customer value increasing effect of recommendation in business-to business relation.**

**We examine if the customers acquired through recommendation differ in aspects of trust, satisfaction, loyalty, and recommendation behaviour from other customers.**

**The practical significance of the research is given by the fact that with the development of customer value calculation, we can get a more exact picture about as to what extent the particular customers of the company, certain segments or the entire clientele contribute to the return on investment of applied tools, this way we can make a direct connection between marketing activity and the achievements of the company's targets.**

With the continuous maximization of customer value we can increase the profitability of the company. With the examination of recommendation - the difficult to quantify element of customer value - the opportunity to segment the clientele on a more segmented value based basis, which makes it possible to define a more exact target group. In the long term the application of the customer value concept contributes to the formation of the company's optimal client portfolio.

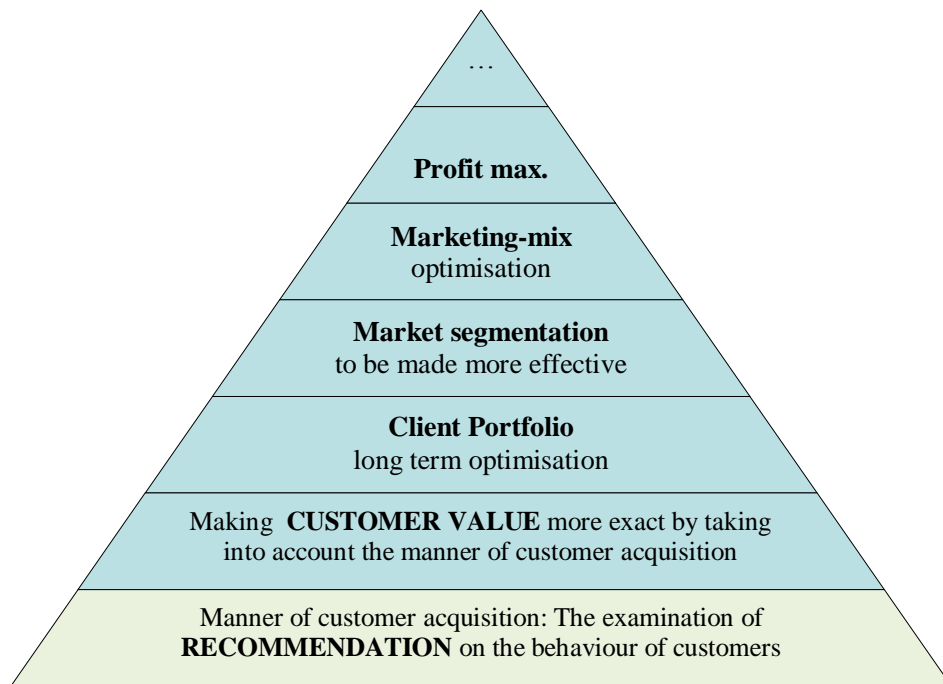


Figure 10. The effect of the aim of the research on the company's profit (self-edited)

## 8.2. Applied methodology

The survey was conducted between 1 October 2011 and 30 November 2011. The sample-taking framework was determined by an address list received from one Hungarian fertilizer-producing company.

The address list contained more than two thousand Hungarian companies dealing with agriculture. While conducting the survey we chose to use phone survey from among the possible methods available to us. Conducting a survey by phone is a method which is well-applicable in the case of organizational customers, when an address list is available to us about the sample-taking framework (Malhotra and Simon, 2008).

Face to face survey would have been more difficult to actualize due to the area deconcentration of the companies, we discarded online survey due to the expected lower will to respond as opposed to a survey conducted by phone. We have commissioned a market research company specializing in this area, to carry out the

survey. 238 (N=238) interviews were made, the average duration of interviews lasted for 20-25 minutes on average. From among the 238 companies questioned we have checked the genuineness of the survey of 15 companies. The response rate was 12%. In the case of questioning by phone, the willingness to reply appears to be average (Malhotra and Simon, 2008), in our case, there can be several reasons for an unsuccessful request to respond: when the phone call was made to the company, the competent person could not be found, or the person could be found, but refused to respond, or maybe the phone number was uncontactable. In case the phone was engaged, we attempted the call twice again, if we did reach the responder, but the responder had no time at that point, we called the person again in most cases at an appointed time made in advance. In most cases this time the interview did take place. With this method we tried to avoid the distortion, that we only asked the most easy to reach people in the sample. The reason for refusal to reply that is, that the person does not wish to reply cannot be avoided, however, we can regard this fault as accidental, and not systematic.

Questioning by phone is very well applicable in case of the questionnaire we used, because the questionnaire did not contain either content-wise or form-wise elements in which's case personal questioning would rather be more recommended.

In case of personal questioning the personal interview is proceeded by an appointment made by phone, and adding this in between, just would have unnecessarily increased the time needed for the uptake of the data.

In the case of the questioning of business customers, a very important element of the questioning is, that we reach the right questioned person, in this case we have questioned the manager responsible for the acquisition of the fertilizer.

### **8.3. The sample and the characteristics of the sampling**

We carried out the research within the framework of companies, 238 Hungarian companies dealing with agriculture (plant growing, animal farming) got into the sample. The sampling method is convenience sampling method. The sample illustrates the Hungarian companies dealing with agriculture well, however, it cannot be regarded as representative, either on the basis of area distribution or on the basis of the size of the companies.

In the focus of the research was the fertilizer acquisition of the company and the

main supplier company of the fertilizer, which supplied the product to the acquiring company.

The questioned person was the member of the buying centre who was responsible for the acquisition of the fertilizer.

The reason for opting for the sector/product was first and foremost that we needed a neutral product from the aspect of recommendation, in which's circle of customers we could find the element-number group suitable for analysis in the case of customers acquired with recommendation and non-recommendation. Another important aspect was that the product had to be a continuously used one, and that it should not be a case of once only or very rarely repeated purchase, respectively the contact details of the questioned persons (existence of an address list) was also a criterion.

Next we describe the main characteristics of the product briefly, based on secondary information and on the interview of the director and the employees of the fertilizer manufacturing company which provided the address list.

When making the decision to purchase the most important factor in the decision is the active ingredient, and the quality/efficacy of the product. As nutritive substance-replenishment represents a significant fraction within the production cost, therefore in addition to active ingredients price also plays an important role at the time of the purchase of the fertilizer. Another important thing is the existence of storage capacity, so that the decision to purchase can be made at any stage during the year. The frequency of fertilizer use and its intensity primarily depends on the plant produced, and the method of production. Basic fertilizing period is typically due in every autumn of each year, but during the course of spring and autumn fertilizer is applied again. On smaller farms buying generally takes place directly before dispersion, in plants with a bigger storage capacity it happens in any period of the year, in one or in several instalments. Fertilizer use in plant production can be compared in several aspects to the use of different kinds of additives in the food industry, regarding the buying process and the decision factors. From the aspect of our research important product characteristics are the physically controllable quality, standard composition, relatively easy comparability with other products.

The number of fertilizer selling companies in Hungary in 2011 is estimated to be

around 150, the 80% of the sales are made by 10-12 companies.

An excellent overview-analysis of the development of number and size of agricultural enterprises until 1996 is given in the study by Harcsa and Kovács (Harcsa and Kovács, 1996), information about the years which followed can be found in the data of the Hungarian Central Bureau of Statistics (KSH in Hungarian).

According to the report published by KSH in March 2011 the number of joint ventures on 31 December 2011 was nearly 601 thousand, the number of individual enterprises was nearly 1 million 44 thousand at the end of 2010. While within the circle of individual enterprises the agricultural activity is above 50%, in the case of joint enterprises this does not reach 5%. All in all, examining the distribution of enterprises according to main activity, a quarter of the enterprises deals in agriculture. In the sample, the ratio of small and micro enterprises is 94.2% which is below the national average with 3-4 percentage points (see annex. 11.3).

The distribution of the enterprises area wise shows a significant change since the obligation of the tax number when compared to previous years, so its worth looking at the joint enterprises and individual enterprises separately. Examining the distribution of the enterprises area wise, we have found very significant differences between these two forms of farming. More than half of the joint enterprises were registered in the Mid-Hungarian region, the share of other regions is around 6.6 – 8,5%. As regards the individual enterprises the distribution is much more even: the 22.6 % share of the Mid-Hungarian region is followed by the other regions with 9.4–19.0% (KSH, 2011).

Recommendation has a differently important role in the various industry branches. We could not find a comparative study with regard to how big the role of recommendation can be in the acquisition of customers. From literature analysis and the information obtained from the qualitative research, we can conclude that the ratio can be very differing even within the industry branches, as it may be influenced by various environmental factors, such as the location of the company or the role which the company plays within the network.

The number of customers acquired with recommendation in the sample is 103, while the number of customers acquired with other marketing tools is 135 (see annex 11.3)

Among the other marketing tools the most important role is that of the contact of the

salesperson, in addition presence on the internet/exhibitions/fairs was also given a mention (see annex 11.3.).

#### **8.4. The creation of the research model**

The empirical research was carried out on the inter-organizational market. The reason for this is that on the one part, based on literature we have come to the conclusion that while in the circle of individual customers, many empirical researches were carried out over the past years regarding the effect of recommendation (Kumar et al., 2010, MacPherson, 2010, Schumann et al., 2010, Schmitt et al., 2011), in inter-organizational relation relatively few have dealt with the topic. The effect of recommendation expressly in an inter-organizational relation was examined by Wangenheim (2002) and Wangenheim and Bayón (2007). The role of personal communication and involvement in the value creating process was examined by Eggert et al (Eggert et al., 2006), Glynn et al (Glynn et al., 2007) and Piscopo (Piscopo, 2007). The role of the social relationships between the individuals in the value creating process was also supported by empirical researches on the organisational markets (Abdul-Muhmin, 2005, Vieira, 2009). These research data show that the deeper examination of interpersonal relationships is relevant on the business to business market as well.

The basic nature of the business to business market is that the customer is in each and every case some kind of organization, and not the individual consumer. The consumer behaviour characteristics vary accordingly; interactivity and mutual dependence is what characterizes it. In every case the organization is embedded in its own social, economic and technical environment (Mandják, 2002). An important characteristic of business to business markets is that nearly all demands are individual ones (Ford, 1980).

We can describe business to business markets as the total of the role players who are in a mutual exchange relationship who control the various resources, where the organisations obtain the necessary resources for their own value creation process from their suppliers. The mutual dependence characteristic of the business to business market also influences the buying behaviour of the organisation, which includes the steps which prepare and actualize the purchase and the evaluation of the purchase as well (Mandják, 2002).



In the case organisations buying behaviour usually means a group decision, the participants in the decision, and the persons involved in the buying process make up the buying centre (Robinson et al., 1967).

The various business to business markets differ from one another in many aspects, the build-up, operation and decision making mechanism differs. The difference between the organisational and individual decision making basically can be traced back to two factors, one is the differences between individual vs. the group decision making (Robinson et al., 1967, Webster. Frederick, 1965, Wind and Webster, 1972) and the different aims and motivations resulting from the role (Wind and Webster, 1972).

From the aspect of our research it is very important, as a characteristic of the industry branch chosen by us, the selection of the suppliers in most cases of the companies is not a group decision, but an individual decision making mechanism. In the background of this is the fact that the decisive majority of the companies is a micro and small enterprise, and at larger companies as well the ratio of the employees doing intellectual work, the various fields have a referent one each. The buying centre is dominated by one central decision maker (owner or senior manager), so the role players' influence on the key informant can be regarded as minimal. Johnston and Bonoma examined the communication relationships between the buying centres, identified and described the main characteristics of buying centres, the roles related to buying, and compared these in the case of the various goods. When examining the communication behaviour of the buying centres, the following were taken into account: vertical involvement, lateral involvement, extensity, connectedness, centrality (Johnston and Bonoma, 1981). Taking these characteristics into account, we can say that in our sample the influencing effect of the buying centre is not significant when compared to the individual decision. The difference between the individual and the organizational decision making can primarily be attributed to the aims and motivations of the key informant, which differ from the individual decision making situation.

Webster and Wind (1972) examine the individual characteristics in the model of organisational customer behaviour. A group of the variables found in the model is based on the belief, that really all organisational customer behaviour is the behaviour of individuals in an organisational environment. Buying behaviour is also motivated

by individual needs and desires, in a complicated connectedness with organisational aims.

The differing behaviour and the difference between the role played individually and the role played in the organization (individual emotional-organizational rational) is due to the fact that the individual's aims are different in the two situations.

When we used the theory connected with cognitive dissonance and the social exchange theory in the research model, we leaned on Webster and Wind's reasoning according to which many subjective factors dominate organizational customers as well, and these factors may play an important role in the organisation loyalty as well (Webster and Wind, 1972).

The model is built on the theoretical concepts presented in detail in the first part of the thesis, and on scientifically based research results. The logical assumptions of the formation of the model are as follows:

- **Customer value concept as a theoretical framework**

The wider theoretical framework of the model is provided by the customer value concept, this is where the research model is embedded into, the effects can be shown through this measurement tool for the company. Customer value measurement enables the measurement of its effect on the profit of the company. From among the customer value concepts Rust, Lemon and Das Narayandas' (2005) model, the „Return on Marketing” model created by Rust, Lemon and Zeithaml (2004) and the model created by Bell et al.' (2002) were the ones which we have presented in detail, these are the ones which serve as possible approaches to the embedding of the model into the customer value concept.

- **Emphasis of the relationship of customer acquisition-customer characteristics**

We analysed the logical process of customer value-management, the connection points of certain factors in detail in the professional overview.

The novelty of our research model is provided by the connection of the variables examined in two previous models in a single structural model. We regard as the start-out model the models below by Verhoef (2002) and Verhoef and Donkers (2005). The two researches have already been presented previously, next we will highlight the characteristics which are important from the aspect of model creation.

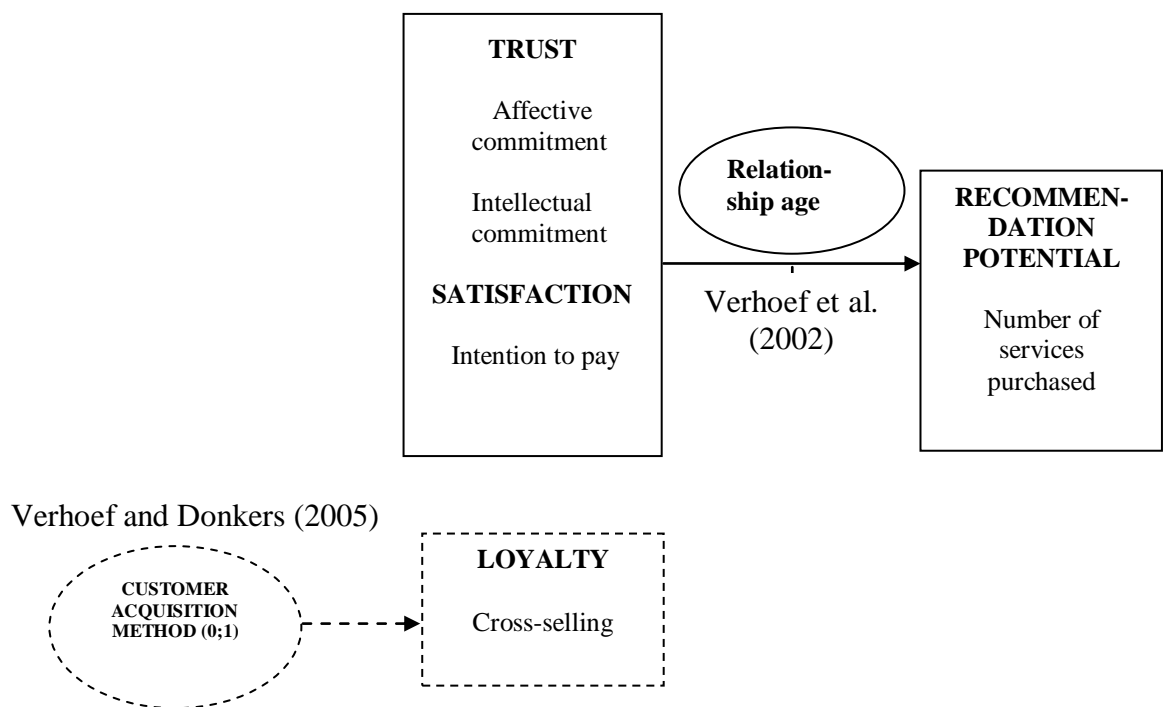


Figure 11. Combination of the two selected research models (self-edited)

Verhoef et al. in their 2002 model have examined the connection between the various relational constructs and the recommendation potential, respectively the number of services made use of with the help of the structural equation modelling LISREL. The primary aim of the research was to show the moderating effect of the relationship's age. The moderator effect did not prove to be significant either in the case of the number of services made use of, or in the case of the recommendation potential. However, a significant direct positive effect was shown between trust, satisfaction, willingness to pay and recommendation potential. From among these variables we took over the trust, satisfaction and recommendation potential into our own model.

Verhoef and Donkers' (2005) model examines the connection between the method of customer acquisition, loyalty and cross selling with the help of the regressive model (probit) in the various product categories.

They examined four different methods of customer acquisition methods, mass media, direct marketing, internet presence, and word of mouth.

All in all it was shown unambiguously that the method of customer acquisition influences loyalty. Word of mouth advertisement as a method of customer

acquisition was proved to be a medium factor of influence on average.

By connecting the two models we have created our own research model, in which trust appears as a mediator between the method of customer acquisition, satisfaction and loyalty variables.

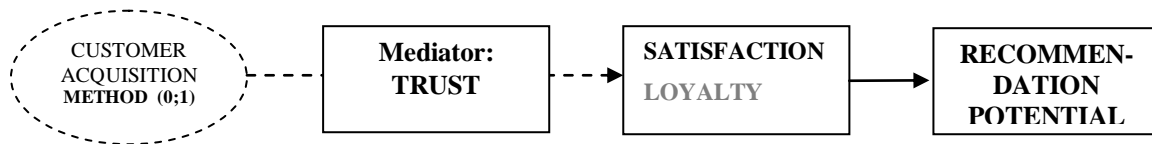


Figure 12: Basic model of the quantitative research (self-edited)

The connection of the models is based on the fact that the method of customer acquisition (recommendation or no recommendation) does influence the customer's relationship to the company, and the future interaction with the company (Blattberg and Deighton, 1996, Thomas, 2001, Venkatesan and Kumar, 2004).

To explain connection between the method of customer acquisition and the relational constructs we will make use of the social exchange theories, and from among the balance theories we will use the cognitive dissonance phenomenon.

The literature dealing with exchange theories, paradigms is very wide in range and very diverse. From the neo-classical interpretation of the market to the shift in the interpretation of the market as a social structure, the works of Granovetter played a significant role (Granovetter, 1985, Granovetter, 1992, Granovetter, 2005).

Social exchange theory was originally developed to describe exchanges between persons which are not purely economic of nature. The sociologists who were involved in the early development of the study were: Homans (1958), Thibaut and Kelley (1959) and Blau (1964) (Homans, 1958, Thibaut and Kelley, 1959, Blau, 1964). The essence of the theory is that the behaviour of individuals in society is describable with the help of the exchange of various resources. The demand for social exchange occurs due to the meagreness of resources, which compels the parties to connect with each other in the interest of obtaining the valuable resources (Levine and White, 1961). According to Blau's the definition social exchange is:

*„(...) voluntary actions of individuals that are motivated by the returns they are expected to bring and typically in fact bring from others.”pg. 91. (Blau, 1964)*

According to Blau (1964) social exchange is such a continuous mutual process, in which the interactions are contingent on rewarding reaction (Das and Teng, 2002). Analysing the literature of social exchange theory, Emerson states that social theory exchange is not a theory, but it is a frame of reference which puts the examination of social processes connected to the movement of resources into focus. According to his belief the condition of the flow of resources is that a valued return contingent should be connected with the exchange (Emerson, 1976).

With social exchange there isn't always a visible extrinsic benefit in each case, which has a measurable objective economic value. Benefit is not defined in the contract, and is based on voluntariness, therefore, the exchange partners are not sure about whether benefit is connected with the change (Emerson, 1976, Cook, 1977).

Social exchange originally pertained to exchange between persons, and then it was extended to the organisational and inter-organisational level (Aiken and Hage, 1968, Jacobs, 1974, Levine and White, 1961). Social exchange can be narrowed down to an exchange between two persons (restricted) and can be extended to a behaviour of a group (generalized), which group consists of at least three participants (Das and Teng, 2002).

We can find several examples of the application of the theory of social exchange theory in the research related to organizations, in the questions examining human resources management (Colwell et al., 2009, Cropanzano et al., 2002, Ehrhardt et al., 2011, Elstad et al., 2011, Frazier et al., 2010, Gould-Williams and Davies, 2005, Jiang et al., 2011, Lin and Huang, 2010). Neves and Caetano use the social exchange theory to better understand the relations between the employees of a company. The role of trust and control between the manager and the employee is examined at the time when organizational changes are taking place (Neves and Caetano, 2006).

There are also examples in the application of social exchange theories in the case of inter-organizational relations. Bunduchi used the economic theory of transaction costs and the theory of social exchange to create a framework of theory, wherein one of the variables was trust (Bunduchi, 2008). Nord created a resource-exchange paradigm, which's purpose is to adapt, with its help, the concepts and connections of social exchange theory to the organizational market. Nord came to the conclusion, that the contents which are found in the social exchange theory may play an

important role in the understanding of inter-organisational relations (Nord, 1980). Das and Bing-Seng used the version of social exchange extended to three or more role player for the deeper understanding of company associations (Das and Teng, 2002).

In his doctoral dissertation Wangenheim used both the social exchange theory both the effect of dissonance when examining the connection between satisfaction, loyalty and recommendation (Wangenheim, 2002).

- **The examination of the effect of the recommendation**

From among the methods of customer acquisition we have focussed the research on the examination of recommendation, because based on the analysis of literature we have come to the conclusion that deeper knowledge of the effect of recommendation may significantly contribute to the increase of customer value.

The positive traits of the customers acquired with recommendations-and which differ from the traits of other customers not acquired by recommendation, were already proven in several previously presented research both in the case of individual customers (Kumar et al., 2010, Schmitt et al., 2011, Schumann et al., 2010), and in the case of companies (Wangenheim, 2002, Wangenheim and Bayón, 2004, Wangenheim and Bayón, 2007). The exposure and proof of the connection is very valuable in business to business relation due to the cumulative effect of the recommendation. Our aim is to examine the effect of recommendation in view of its relation to the variables of trust, satisfaction, loyalty and recommendation potential (moderator effect) and the examination of the effect of the recommendation through the varying two dimensions of trust as mediator variable (mediator effect).

### **8.5. The presentation of the variables used in the model**

The basic research model consists of five latent variables, which we have measured with the help of indicators in a reflective manner, these are the method of customer acquisition (dummy variable) satisfaction (3 indicators), loyalty (5 indicators) trust (2x4 indicators) and recommendation potential (3 indicators). Trust is made up of two dimensions, credibility based trust, and benevolence based trust which expresses motivation. In the previously created model a wider range of variables were present, which then have been withdrawn from the model based on the recommendations from the preliminary workshop debates and international doctoral seminars. The

variables of the model are presented next.

### **8.5.1. Satisfaction**

According to one of the theoretical bases of value centred marketing, the Neo-classical view, the customer spends the earned income in a manner that the satisfaction derived from the products is at a maximum (Bowman and Ambrosini, 2000).

Consumer satisfaction has appeared in American literature decades before, as one of centre of gravity areas of marketing. Though the literature written in Anglo-Saxon and Germanic languages discusses the concept since long ago, its definition is still not uniform, several denominations and definitions co-exist. Presumably, the reason for this is not only the multiple interpretations, but also that in each particular field of application different emphases may be of more importance. The research of customer satisfaction and service provision quality has significantly contributed to the understanding of the relationship between customer and profitability (Anderson et al., 1994a, Heskett et al., 1994, Rust et al., 1995a).

Several researches deal with the connections between customer satisfaction and the customer value concepts of different approach (Flint et al., 2011, Payne and Holt, 2001, Piskóti and Nagy, 2009, Slater and Narver, 2000, Teck-Hua et al., 2006). Among these, the Payne and Holt type of categorization of the concepts connected with customer value, which is discussed in detail in Chapter 2, there the authors mention customer satisfaction as one of the most important factors (Payne and Holt, 2001).

Next we will present some definitions of satisfaction without the demand of completeness. According to Oliver customer satisfaction can be defined as the subjective judgement of the consumers about the fact that they reached a pleasant level of consumer experiences (Oliver, 1997).

Churchill Jr. and Surprenant define customer satisfaction as a result of usage and purchase, which is based on the comparison of reward-cost by the consumer, while taking into account the prospective consequences (Churchill Jr and Surprenant, 1982).

According to the definition of Westbrook and Oliver customer satisfaction is a kind

of emotional answer to the experience gained from the product and the purchased service (Westbrook and Oliver, 1981).

According to the approach of Stauss and Weinlich under customer satisfaction we understand the phenomenon which occurs after the purchase was made, and which reflects how the consumer evaluates the purchased product and services posteriorly (Stauss and Weinlich, 1997).

In our present research we interpret it as follows using Kotler's definition as a support:

*Satisfaction is the joy or the disappointment of the given person, which results from the performance or result the product or the service gave when compared with expectations (Kotler and Armstrong, 1996).*

Obvious from the previous definitions as well, one of the most common satisfaction cognizance, the disconfirmation paradigm endeavours to define a level of expectation, respectively, the fit in comparison to the level of expectation, and based on the difference between the two, it talks about confirmation and disconfirmation respectively. The ascertainment of disconfirmation is really a result of a complex, psychical process, during the course of which the consumer compares his/her experiences gained from the use of the given product or the service, with an expected performance, ideal, or norm (Oliver, 1980).

In case the comparison balance of the expected and actual performance is positive, then satisfaction occurs, if the balance is negative, then dissatisfaction occurs, in the case of nearly similar balance a neutral opinion occurs (Herrmann and Homburg, 1995).

A criticism of the disconfirmation theory is that the customers do not compare their value judgement of the product with their expectations, but with values and desires. According to Oliver when examining satisfaction not only product characteristics, but also emotional factors should be measured (Oliver, 1993).

In practice taking the effect of recommendation emphatically into account a widely known method is NPS (Net Promoter Score), which forms an indicator number (R-NPS) from the ratio of the promoters, detractors and all questioned persons (Garrity, 2010, Merrick, 2009, Reichheld, 2003), and which is criticised by many for its excessive simplicity and superficiality, and attention is drawn to the fact that the NPS



indicator is not sufficient to expose the reasons for the problems (Goldman, 2009, Sharp, 2008).

Literature deals a lot with the concept of satisfaction on the level of individual customers, however, we have found relatively little information about what difference there is between organisational and individual satisfaction, how the satisfaction of the company should be interpreted and in what manner it is worth measuring.

From among the Hungarian researchers Piskóti and Nagy have examined the dimensions of satisfaction in business to business relation. In their work, they review the literature of customer satisfaction and create a new customer satisfaction model (Piskóti and Nagy, 2009). The most important variables of the model are customer orientation, loyalty and customer value. Based on their empirical experiences they highlight the advantages of the application of the Importance-Satisfaction matrix method, where the responders first have to rank the variables according to importance, and then evaluate satisfaction on the Likert scale.

It can be seen from the international research of recent years, that the use of the various scales measuring reflective satisfaction is frequent, with the help of these scales, the connection between satisfaction and the other examined variables is examined with structural equation modelling (Chandrashekar et al., 2007, Paulssen and Birk, 2007, Sharma, 2007, Molinari et al., 2008, van Doorn, 2008, Callarisa Fiol et al., 2009, Čater and Čater, 2009, Spreng et al., 2009).

Generally the responder is the key informant, it rarely happens, that the opinion of several involved persons is taken into account when measuring satisfaction. This practice was criticized by Rossome (2003), whose conceptual article on the measurement of the satisfaction on the organisational market lines up several reasons behind why the organisational satisfaction should not be reflected by the opinion of one person only.

In the customer satisfaction model however a role is given to the influent screen, which can be interpreted as a kind of weight at the evaluation of the satisfaction measurement of the various involved persons.

As in the branch examined by us the ratio of small enterprises and individual entrepreneurs is high, and the key informant has the decisive influence on the

acquisition decision, we believe that we do not make a big mistake by asking the manager responsible for fertilizer acquisition at every one of the companies.

For the present research model we have used a reflective scale created by Cronin from three statements, which then modified by Oliver to measure total satisfaction (Cronin Jr et al., 2000, Oliver, 1997). The advantage of the reflective scale is that it is more suitable to be drawn into the structural equation models, while the formative measurement method is often used because of its good practical applicability and the direct usability of the results (Hofmeister-Tóth et al., 2003, Herrmann and Homburg, 1995).

The table below shows the indicators of the variable, the Hungarian translation not differs significantly from the original.

<b>Variable</b>	<b>Indicators</b>	<b>Method of measurement</b>	<b>Source of scale</b>
Satisfaction (SAT)	The choice to purchase this service was a wise one.	5 point Likert scale	(Cronin Jr et al., 2000, Oliver, 1997)
	I think that I did the right thing when I purchased this service.		
	This facility is exactly what is needed for this service.		

### **8.5.2. Loyalty**

There is no accordance in the literature about what difference there is between organisational and individual loyalty, how the phenomenon should be interpreted in the b2b context and in what manner it is worth measuring. According to Hetesi (2011), there can be find no significant different in the literature between the definition of loyalty in the two different fields, but she founded some differences between the influencing factors (Hetesi, 2011).

To highlight the main attributes of loyalty, we can conclude, that loyalty has both behavioural and attitude components (Wangenheim and Bayón, 2004), it is a multi-dimensional concept and construction (Hofmeister-Tóth et al., 2003). It cannot be measured with the willingness to re-purchase alone (Ganesh et al., 2000). Loyalty is one of the factors with which's help the values connected to marketing can be

deducted (Srivastava et al., 1998). Based on Oliver's (1999) definition we define loyalty as follows:

*"A deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour." (Oliver, 1999, p. 33-44.)*

Dick and Basu (2004) have created a theoretic frame model of loyalty in which they analyse in detail, the concept's aspects and dimensions in relation to the individual customers.

Kumar and Shah (2004) create the theoretic frame model of the loyalty concept which is also interpretable on wider organizations, which they connect with the concept circle of customer value.

Lichté and Plichon (2008) list the models related to the measurement of attitude into three groups, behavioural, attitude and mixed. As behavioural dimension the maintenance of the relationship with the company which can occur as: willingness to repurchase, resistance to offers of the competition, higher price tolerance. Another important behavioural dimension is recommendation (positive word of mouth advertisement). Non behavioural dimension: favourable attitude, preference (Lichtlé and Plichon, 2008)

In our research we measure loyalty in a reflective manner consisting of the five statements by Ganesh on a multi-item scale (Ganesh et al., 2000). This scale was used by Wangenheim and Bayón (2000), when examining the German electricity market, on both individual and organisational customers (Wangenheim and Bayón, 2004, Wangenheim, 2003). The scale separates the two dimensions of loyalty, active and passive loyalty. Active loyalty pertains to the proactive dimension of loyalty, the proactive behaviours or behavioural intentions that require conscious and deliberate effort to undertake (Ganesh et al., 2000. pg. 80.).

The passive dimension refers to reactive behaviour or the intention of such behaviour, this attitude includes the attitude components, these are, sensitivity to price, or the increase of competition, and this dimension is influenced by the perceived costs of change, which do not have an effect on the active dimension

(Gahesh et al. 2000). The table below shows the indicators of the variable, the Hungarian translation not differs significantly from the original.

Indicator	Indicators	Method of measurement	Source of scale
Loyalty Passive dimension (LOY_P)	We do not intend to switch our deliverer in the near future.	5 point Likert scale	(Ganesh et al., 2000)
	I would highly recommend this company to my friends and family.		
Active dimension (LOY_A)	If the company were to raise his prices, we would still continue to be a customer of him.	5 point Likert scale	(Ganesh et al., 2000)
	If a competing firm were to offer a better prise, we would still continue to be a customer of this company.		
	If a competing firm were to offer a better service, we would still continue to be a customer.		

### 8.5.3. Trust

The emphatic treatment of customer value, customer retention and relations are not only important tools for the success of the company, but they can also result in an environment for the customer in which the customer's sense of security is of great degree.

A research school has formed in the direction of the interpersonal models, which deals with such central concepts as trust, connectedness, and shared values (Brodie et al., 2002).

This school of research often came to the conclusion that all relationships lead to long-term commitment, and the fact, that not all relationships are desirable from the aspect of the company was not taken into account. For the examination of interpersonal relations there is a need for models which optimize company strategy, balancing out the level of relationship and profitability expected by the customer.

We can find several definitions of trust both in the literature of marketing and social studies (Deutsch, 1958, Larzelere and Huston, 1980, Moorman et al., 1992, Rotter, 1971). In the present research we understand the following under the term trust:

*The expectation of a person or group which may be an verbal or written promise, statement, which the other party may refer to (Moorman et al., 1992, Rotter, 1971), it is faith in the reliability of the other party's will among the circumstances which hide the risk, or it is a conviction regarding the benevolent will of the other party. (Deutsch, 1958).*

The first dimension, credibility is based on the partner's will and trust that he/she will keep his/her promise, and will take into account the factors which are important for the partner, such ones are the task specific competencies, that the partner produces or provides service trustworthily, and his/her behaviour in connection with work is predictable. The second dimension benevolence, which is based on quality, wills, and traits attributed to the partner, which are a sign that the partner does care about the other party, and is willing to make sacrifices which go beyond the limits of purely egocentric and profit-oriented way of thinking (Rempel et al., 1985).

Within the buyer-seller relationship we can differentiate between four participants: 1) the buyer organisation 2) the individual representing the buyer organisation 3) the selling organisation 4) the individual representing the selling organisation - the salesperson. Trust can exist between the four participants in several relations (Ganesan and Hess, 1997). Interpersonal trust exists between the individual representing the buying company and the salesperson. The second level can be the trust levels of the individual representing the buying organisation and the salesperson in connection with the other organisation. This is what Ganesan and Hess regard as organisational trust. Thirdly a trusting relationship exists between the buyer and the buyer organisation, and the salesperson and the selling organisation (intraorganisational trust). The trust between the employee and the employer (intraorganizational trust) was researched widely in the literature of organisational behaviour (McAllister, 1995). Finally, trust exists between the organisations. IMP literature emphasizes the focal construct of trust (Hakansson, 1982, Ford, 1990).

*As an organisation is nothing other than the collection of individuals, the trust between organisations is the aggregation of individual level trust on the various levels of the company's hierarchy (Larson, 1992).*

Mandják (2010) analysed the role of trust in business relationships, and based on the research Mandják regards trust as the focal construct of the social components of

business relations. According to Mandják's view there a business relationship does not exist without trust. Based on Mandják's analysis a difference is made between the cognitive and affective components of business relations, its content is predictability and the expected behaviour. Predictability expresses that the behaviour of the other party can be seen in advance, while the expected behaviour is the partner's predictable reaction in the interest of making his activity mutually beneficial to both parties. Trust is process and relationship at the same time, which's prerequisite, is the perceived honour, by which the partner's abilities, honesty, and benevolence are meant, and its consequence is the trust in the partner. Mandják concludes while examining the exchange episodes and interaction processes between companies, that the relationship of trust is structured by the exchange episodes actualized in the business relationship, while the interaction process between the parties dynamize the relationship of trust (Mandják, 2010).

In business relationships we can differentiate between four types of trust based on the perception of the partner's benevolence (motivation), credibility (ability), we speak of connecting trust in case both dimension exist, hopeful trust in case benevolence is there but credibility is not, and insecure trust if we just presume credibility but not benevolence, and in case neither dimension is present, we cannot speak of trust (Andaleeb, 1992).

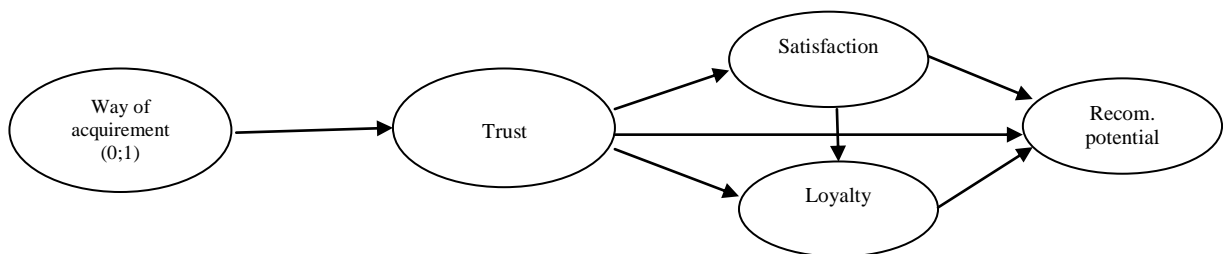
In our present research we measure two dimensions of trust placed in the organisation, the benevolence based trust, which represents the motivational dimension and credibility based trust which represents the dimension of ability. To make the measurement we use the multi item scale of Kumar et al (Kumar et al., 1995b).

The table below shows the indicators of the variable, the Hungarian translation not differs significantly from the original.

Variable	Indicators	Method of measurement	Source of scale
Trust Credibility based trust (TRU_CR)	Promises made by this resource are reliable.	5 point Likert scale	(Kumar et al., 1995a)
	This resource has been frank in dealing with us.		
	If problems such as shipment delays arise, this resource is honest about the problems.		
	This resource has been consistent in terms of their policies.		
Benevolence based trust (TRU_B)	This resource cares for us.	5 point Likert scale	(Kumar et al., 1995a)
	This resource considers our interests when problems arise.		
	This resource has gone out of its way to help us out.		
	This resource has made sacrifices for us in the past.		

Our research model was created following the separation of the two dimensions of trust:

Initial model:



Research model:

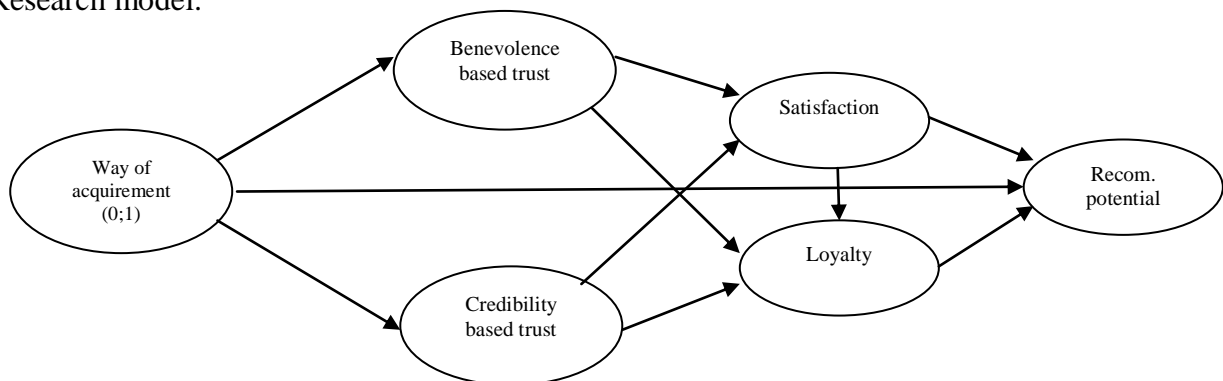


Figure 13. The separation of the two dimensions of trust (self-edited)



#### 8.5.4. Recommendation potential

In this thesis under the term word of mouth, and within it recommendation we understand the following.

*“Word of mouth is an informal communication with positive or negative content between the customers, about a company, its product or service.” (Tax et al., 1993) (p.74) “Recommendation is a form of positive word of mouth, which a customer tells to another customer about a product or a service.” (Helm, 2003) (pg.124)*

Recommendation can also be interpreted as a form of reference, its manifestation in verbal form. Salminen and Möller (2006) created a comprehensive model to show the role of reference on the business to business market, in which we find among the practical forms of the application of reference one of the forms of recommendation (request to promote) (Salminen and Möller, 2006). Longitudinal researches are ideal for the examination of recommendation behaviour, because these measure not only the will to recommend, but the actual behaviour as well. This present research is a cross section research, thus there is a possibility to measure the intention to recommend only. We have measured the recommendation potential on a three item reflective scale, validated by Zeithaml et al (1996). The scale was used by Verhoef et al. (2002) in their model which is also one of the initial models of this present research. The table below shows the indicators of the variable, the Hungarian translation not differs significantly from the original.

<b>Variable</b>	<b>Indicators</b>	<b>Method of measurement</b>	<b>Source of scale</b>
Recommendation potential (REC)	I say positive things about this company to persons in my environment.	5 point Likert scale	(Zeithaml et al., 1996)
	If somebody seeks for advice I recommend this company.		
	I encourage relatives and friends to do business with this company.		

### 8.5.5. Testing of scales in previous researches

The usability of the scales in Hungarian was tested during the previous researches. In the case of scales which measure in the reflective manner (loyalty, recommendation) are in the acceptable domain according to the Chronbach alpha value ( $0,7 < Ch\alpha$ ). The studies are accessible partly in the central library of the Corvinus University of Budapest, and in part in the archive of the Marketing and Media Institute. We summarized the details of the researches in Table 2:

<b>Date of the research</b>	<b>The aim of the research</b>	<b>The scale involved in the research</b>	<b>Value of Chronbach alpha</b>	<b>Sample size</b>
2008	Measurement of customer satisfaction in the clientele of MOL	satisfaction, loyalty	0,872 0,863	250 (b2b)
2008	The development and application of customer retention, satisfaction and loyalty on the electric energy market	satisfaction, loyalty	0,821 0,844	300 (b2b) 500 (b2c)
2010	Getting to know the customer habits in connection with sports and spare time products, the exposure of opinions and attitudes regarding sport product webstores	recommendation, loyalty	0,899 0,799	320 (b2c)
2011	The relationship of A DSG (Deutschsprachiger Studiengang) alumni to Germany and German companies	recommendation	0,913	150 (b2c)
2011	The measurability of country image in theory and in practice	recommendation	0,902	600 (b2c)

Table 2: Testing of scales in the previous researches (self-edited)

## **8.6. The creation of research hypotheses with the analysis of the connections between the variables**

### **8.6.1. Analysis of direct effects**

#### *The connection between customer acquisition and trust*

Trust can be regarded as the basic element of successful company relationships (Gounaris and Venetis, 2002, Sahay, 2003, Svensson, 2004). Anderson and Narus manufacturing and distribution companies model the partner relationships of companies (Anderson and Narus, 1984, Anderson and Narus, 1990). The theoretic basis of the model is the social exchange theory, and one of its central variables is trust. According to Anderson and Narus the difference between the trust between persons and organisations can be deducted from the fact that in the case of the organisation the conflict situation the loss is suffered by the company, while in the case of the loss of trust between persons means the risking of personal assets (Anderson and Narus, 1990).

Sahay examines the role of trust within the supply chain, examines the development of trust and the effect of trust on the behaviour of the customer and the seller. According to Sahay from the aspect of the survival of business relationships it is decisive that we get to know the factors which lead to the formation of trust. The basis of one of the trust forming factors is how much the partner is able to predict the behaviour of the other party in advance. In this process, the sharing of information, the advance information about the partner has an elementary role (Sahay, 2003). Doney et al. have concluded that in the formation of trust social interaction and open communication both play a role (Doney et al., 2007).

According to Doney and Cannon the basis of trust is that the partners evaluate each other's credibility and benevolence, that is, one of them must possess information about the other party's behaviour and promises (Doney and Cannon, 1997). Thus, from the aspect of the development of trust the information search process which precedes the decision has an important role, which takes place along several customer acquisition channels.

In our research model recommendation (the method of customer acquisition) is the result of the communication between the two parties. The relationship between

communication and trust was empirically examined among others by Bialaszewski and Giallourakis (1985), Anderson et al (1994), Dwyer et al (1987) (Bialaszewski and Giallourakis, 1985, Anderson et al., 1994b, Dwyer et al., 1987). The empirical research has not provided an unambiguous answer to the direction of the relationship of the two variables. While Anderson et al. have come to the conclusion that communication leads to trust, Dwyer et al. came to the conclusion that communication is the result of trust. Anderson and Narus present the varying relationship of trust and communication as an iterative process. The communication between the companies is the prerequisite of trust, and increasing trust leads to better communication (Anderson and Narus, 1990).

Compared with the other methods of customer acquisition recommendation has the special trait that a third party gets involved in the exchange processes, and that third party has some kind of a positive attitude towards the recommended company.

Social type of interaction takes place between three participants (the recommender, the recipient of the recommendation and the recommended) therefore we can talk about an extended social exchange. The first relevant interaction is communication, during the course of which the recommendation takes place. This exchange is not directly connected to an economic event, it is in conformity with the characteristics of social exchange.

According to Foa and Foa we can rank the resources into groups according to tangibility, uniqueness, exchangeability and we can define regularities pertaining to the exchange. From the aspect of our model an important regularity is, that the exchange of the resources closer to each other is more likely (Foa and Foa, 1980).

To a social type of investment the reciprocation is of the social type, while to an economic type of investment an economic reciprocation is more likely. In the case of extended social exchange, when more than two participants participate in the exchange, trust usually occurs during a mutual indirect process, in which one party receives an advantage from the other party and returns it to the other participant within a certain time. It is the taking of the risk that goes with assumed reciprocity that leads to the formation of trust (Das and Teng, 1998). According to our assumption due to voluntariness and reciprocity the social exchange leads to the strengthening of that dimension of trust which is based on benevolence.

In the case of customer acquisition methods other than recommendation, no third party gets involved in the exchange processes, the interaction takes place between the company and the client. There is no third party with whom the relationship would directly have an influence on the further relationship with the company. This interaction type is closer in every type of customer acquisition method, to economic exchange, it contains fewer social elements, than recommendation. Based on all of these, we make the following assumptions in connection with the relation between customer acquisition and trust in our research:

**H1: The way of acquisition has a stronger positive effect on benevolence based trust, than on credibility based trust.**

**H2: By customers acquired through recommendation the level of benevolence based trust is higher than by customers acquired not through recommendation.**

According to Levinger during the unfolding of the relationships the exchanges became more frequent and become bigger both regarding their size and the risk (Levinger, 1980). With the acceptance of recommendation an extended social exchange takes place between the recommender and the recipient of the recommendation, and in addition, also an economic exchange relationship is established between the recipient of the recommendation and the recommended company (that some kind of exchange relationship already existed between the recommender and the recommended company is highly likely).

An important question is, what the relationship is of the effect of the customer acquisition channel's age, to what extent it can have an effect on the process of the development of trust and the other examined factors, in the case of older relationships. Following the reasoning of Schmitt et al. about the similarity between the building up of the search for human resources and business relationships, the recommender also strengthens his own relationship with the recipient of the recommendation, since the recommended company becomes a mutual acquaintance, "the link" for them (Schmitt et al., 2011).

This is why we assume, that this recommendation may just not have an influence on the new business relationship, but also based on the relationship with the recommender, it can also have an effect on the new business relationship in the long

term. This assumption is strengthened by the fact that Verhoef et al (2002) did not show the significant moderating effect of the relationship's age between the examined variables and the recommendation potential.

*The connection of customer acquisition with recommendation potential*

In the case of customers acquired through recommendation, first the exchange of information occurs between the recommender and the recipient of the recommendation, during the course of which the recommender makes a social kind of investment offer towards the recipient of the recommendation and the recommended.

This investment, according to the extended social exchange theory, the recipient of the recommendation reciprocates this with a similar type of resource within the circle of the participants of the exchange. So this type of social exchange attracts similar type of exchanges. Such non-economic type of resources may be: love, status, information or service (Foa and Foa, 1980). Further recommendation is connected most closely with service, but its also connected with information and status type of resources.

In addition, the phenomenon in connection with word of mouth also points in this direction, namely that customers in possession of certain characteristics attract customers with similar characteristics (Wiedmann et al., 2007, Buttle, 1998). For whom recommendation is a crucial factor on the selection of a partner, is also more close to this method of informal information acquisition, and therefore he himself also recommends more gladly (Schmitt et al., 2011, Wangenheim, 2002). In our research we make the following assumption in the relation of the manner of customer acquisition and the recommendation potential:

**H3: The way of customer acquisition has a positive effect on the recommendation potential.**

**H4: The recommendation potential is higher by customers acquired through recommendation.**

## 8.6.2. The analysis of indirect effects

### *The effect of trust on satisfaction*

In the literature we can find several examples which support, that trust has a positive effect on satisfaction, from among these trust was built in as a moderating or mediator variable by many (Morgan and Hunt, 1994, Ryu et al., 2008). Sungmin et al. examined the moderating effect of trust between environmental uncertainty, vertical control, and the satisfaction with the supplier. They came to the conclusion that trust has a positive significant effect on the satisfaction with the supplier (Ryu et al., 2008). Castañeda (2011) examined the relationship of satisfaction and loyalty in connection with online transactions and came to the conclusion that the moderating variable between the two variables is involvement, and its mediating variable is trust (Castañeda, 2011).

Sengün and Wasti (2011) showed a positive effect between the dimensions of trust, goodwill trust and competence trust and between satisfaction on the intraorganisational markets (Şengün and Wasti, 2011). Chiao et al. examined the loyalty of the customers of banks, and during the course of the examination differentiated between two types of customer groups. In case of transaction oriented customers satisfaction was the main defining factor of loyalty, whereas in the case of relationship oriented customers this factor was trust (Chiao et al., 2008). Andaleeb and Ingene (1996) examined the relationship between trust and satisfaction with experimental methods, and found a positive connection between the two (Andaleeb and Ingene, 1996). In our research we make the following assumption about the relationship between trust and satisfaction, and would like to verify the moderating role of trust with the H5a assumption.

**H5: Both dimensions of trust have a positive effect on satisfaction.**

**H5a.: Benevolence based trust has a stronger positive effect on satisfaction in the case of customers acquired through recommendation.**

**H6: Customers acquired through recommendation are more satisfied.**

### *The effect of trust on loyalty*

In literature there is unity in the aspect that trust has a positive effect on the long term orientation of the company (Doney and Cannon, 1997, Ganesan, 1994).

The positive effect of trust on loyalty in an intraorganization relation was proved in several researches (Gounaris et al., 2007, Harris and Goode, 2004). Ryu et al (2007) have examined the defining factors of the long term orientation of companies and have found the most important precursor to be trust, but satisfaction also proved to be an influencing factor. The factors influencing the relationship of trust and long term orientation were power asymmetry and environmental uncertainty (Ryu et al., 2007). Briggs and Grisaffe examined the connections between service performance and loyalty on the international market. For the creation of their model they used social exchange theory and intra organisational customer behaviour. It was shown that trust has a positive effect on loyalty (Briggs and Grisaffe, 2010). Rauyruen et al have shown that there is a positive connection between trust and the components of loyalty attitude (Rauyruen et al., 2009). In our research we make the following assumption in connection with the relationship between trust and loyalty:

**H7: Both dimensions of trust have a positive effect on loyalty.**

**H7a: The effect of benevolence based trust on loyalty is stronger by customers acquired through recommendation, than by customers acquired not through recommendation.**

**H8: The customers acquired through recommendation are more loyal, than the customers acquired not through recommendation.**

*The effect of satisfaction on the recommendation potential*

In the literature we have found several sources according to which satisfaction has a positive effect on the recommendation potential (Anderson, 1998b, Swan and Oliver, 1989, Westbrook, 1987, Ranaweera and Prabhu, 2003). Ranaweera and Prabhu examined the effect of satisfaction and trust on customer retention and word of mouth in the case of individual phone line users. In all relations they have shown a significant positive effect. According to their results satisfaction has a stronger direct positive effect on customer retention than trust, however, in the case of word of mouth the effect of trust was just a little weaker than that of satisfaction (Ranaweera and Prabhu, 2003).

Anderson (1998) examined the connection between customer satisfaction and word of mouth with the help of the utility based model (Anderson, 1998a). The results have confirmed the assumption that we can speak of a U shaped curve, that is, the word of mouth activity of the very dissatisfied and the very satisfied customers is higher.



Cornelsen and Diller's model is based on the study of consumer behaviour and incorporates the factors of the effectiveness of recommendation behaviour (Cornelsen and H., 1998). In the model the recommendation potential is determined by three main factors: the size of the social network, customer satisfaction, and the opinion leadership role. For the forecast of recommendation numbers Wangenheim and Bayón (2004) make use of the satisfaction variable.

Research results show, that positive word of mouth plays a significant role in decreasing the occurring perceived risk which happens prior to buying (Arndt, 1967, Murray, 1991). In the exposure of the relationship of satisfaction and recommendation the theory of cognitive dissonance may help (Wangenheim, 2002). Following the purchase cognitive dissonance may occur, this can be reduced significantly with positive information. This is primarily true about the information which can be transmitted in personal communication: the consumers who receive positive confirmation following their purchase about the purchased brand or merchant, happily use this information also to reaffirm their own decision.

The decrease of the cognitive dissonance on its own is already capable of influencing customer satisfaction, and the consumer satisfaction connected with it (Oliver, 1997). Positive information makes the confirmation of the decision to purchase only stronger, and increases satisfaction hereby (Cooke et al., 2001). Attributions theory assumes that the recipient of information tries to explore the reasons of the information-giver. If one receives positive information, this information seems less credible is the recipient of the information assumes about the information giver, that the information giver says that information to decrease his own post-purchase dissonance and thus affirm the decision to purchase (Kelley and Michela, 1980). In our research we make the following assumption in the relation of satisfaction and the recommendation potential:

**H9: Satisfaction has a positive effect on the recommendation potential.**

*The effect of loyalty on the recommendation potential*

The positive connection between loyalty and recommendation potential was shown in several researches (Kumar et al., 2010, Reichheld, 2003, Schmitt et al., 2011, Wangenheim and Bayón, 2004, Wangenheim, 2003).

The measurement tools of loyalty were collected and analyzed by Lichtlé and

Plichon (2008). It discusses the often used tool for the measurement of loyalty the measuring method which is done with consequences, which's often used form is the positive word of mouth, and convincing respectively (Lichtlé and Plichon, 2008). Based on all of these, we have defined the following research hypothesis:

**H10: Loyalty has a positive effect on recommendation potential.**

*The connection between satisfaction and loyalty*

The relationship between satisfaction and loyalty is the subject of numerous researches both in the individual (Bloemer and Kasper, 1995, Seymour and Rifkin, 1998, Edvardsson et al., 2000, Chandrashekar et al., 2007, Vesel and Zabkar, 2009, Dick and Basu, 1994) and on the intraorganisational relation (Bennett et al., 2005, Callarisa Fiol et al., 2009, Čater and Čater, 2009, Flint et al., 2011). The results show, that satisfaction is an important factor of loyalty (Dick and Basu, 1994), however, it isn't enough for the retention of the customers (Reichheld, 1994). On markets where the customer has many choices, and the costs of switching are low, even the high level of satisfaction may not be enough to ensure customer retention (Piskóti and Nagy, 2009, Flint et al., 2011). Rauyruen et al. have shown the positive effect of satisfaction both on the components of loyalty and behavioural attitude (Rauyruen and Miller, 2007). Based on all of these we have worded the following hypothesis:

**H11: Satisfaction has a positive effect on loyalty.**

In our sample, the size of the acquisition centre is small, in our sample we have not examined the flow of information and transfer of knowledge within the model. While the decision maker often also has an ownership share in the company, and it is typical that he stays with the company for the long-term, this way the information pertaining to the partner is also likely to stay with the company for longer, than in the case of non-owner decision maker who have a bigger acquisition centre at their disposal.

The summary of the hypotheses of the research:

	<b>Content of hypothesis</b>	<b>Method of testing the hypothesis</b>
H1	The way of acquisition has a stronger positive effect on the benevolence based trust than on credibility based trust.	Structural Equation Modeling (SEM)
H2	By customers acquired through recommendation the level of benevolence based trust is higher than by customers acquired not through recommendation.	Explorative factor analysis, variance analysis Structural Equation Modeling (SEM)/ Multi Group Analysis (MGA)
H3	The way of customer acquisition has a positive effect on the recommendation potential.	SEM
H4	The recommendation potential is higher by customers acquired through recommendation.	explorative factor analysis variance analysis SEM/MGA
H5 H5a	Both dimensions of trust have a positive effect on satisfaction. Benevolence based trust has a stronger positive effect on satisfaction in the case of customers acquired through recommendation.	SEM/MGA
H6	Customers acquired through recommendation are more satisfied.	explorative factor analysis, variance analysis SEM/MGA
H7 H7a	Both dimensions of trust have a positive effect on loyalty. The effect of benevolence based trust on loyalty is stronger by customers acquired through recommendation, than by customers acquired not through recommendation.	SEM/MGA
H8	The customers acquired through recommendation are more loyal, than the customers acquired not through recommendation.	explorative factor analysis, variance analysis SEM/MGA
H9	Satisfaction has a positive effect on the recommendation potential.	SEM/MGA
H10	Loyalty has a positive effect on the recommendation potential.	SEM/MGA
H11	Satisfaction has a positive effect on loyalty.	SEM/MGA

Table 3. Summary of research hypotheses (self-edited )

### **8.6.3. The methods used for the testing of the hypotheses**

For the testing of the research hypotheses we have used various quantitative research. With the use of the multi item scales used to measure the variables we have first used an exposing style explorative factor analysis, which's aim is on the one part the examination of the quality of the researched scales (reliability, validity) and on the other part the creation of such kind of factor values with which's help further analysis (in our case variance analysis) can be carried out. This way, on the one hand we can be certain that the chosen scale really is suitable for the measurement of the latent constructions we wish to measure, and on the other hand we create such kind of a metric index number (the average of factor values on all the questioned) which is suitable for the comparison of our latent variables in the sub-groups.

After this we carry out variance-analysis with the help of factor values, with which's help we examine, whether the customers who came to the company with recommendation are more loyal, and whether they show greater trust, and recommendation potential than those customers who were acquired with other methods. Variance analysis is suitable for comparing the group averages however, it is not suitable for showing the root-cause connections and the strengths between the particular variables.

To analyse the effects we have used the method of Structural Equation Modelling, (hereafter referred to as SEM) SEM can be regarded as the extension of general linear models (hereafter referred to as GLM) which is parallel suitable for several regression calculations, so with its help a more complex connection can be modelled between the examined variables. The SEM model is made up of the measurement model and the structural model. With the measurement model the method is directly creates derived, latent variables from the observed variables but does not examine a causative connection. In the case of the structural model the aim is the examination of the connection of the causal relationship between the variables obtained from the SEM (Backhaus et al., 2011)

We have used two variations of the SEM model to test the hypotheses.

By embedding the method of customer acquisition as a dummy variable, we examined the direct effect of the recommendation on the two dimensions of trust and

the recommendation potential, and through this the **mediating** effect of the two dimensions of trust (Wu and Zumbo, 2008) between recommendation- as a matter of customer acquisition- and the other examined construction (satisfaction, loyalty, recommendation potential).

In the other variation of SEM we have examined the model having applied it to several groups at the same time (Multi Group Analysis, hereafter referred to as MGA) the **moderating** effect of recommendation (Sauer and Dick, 1993) for the root-cause connections between the other variables. To show the connection between several variables simultaneously Multi Group Analysis is a suitable method (see Weiber and Mühlhaus, 2010. pg 231).

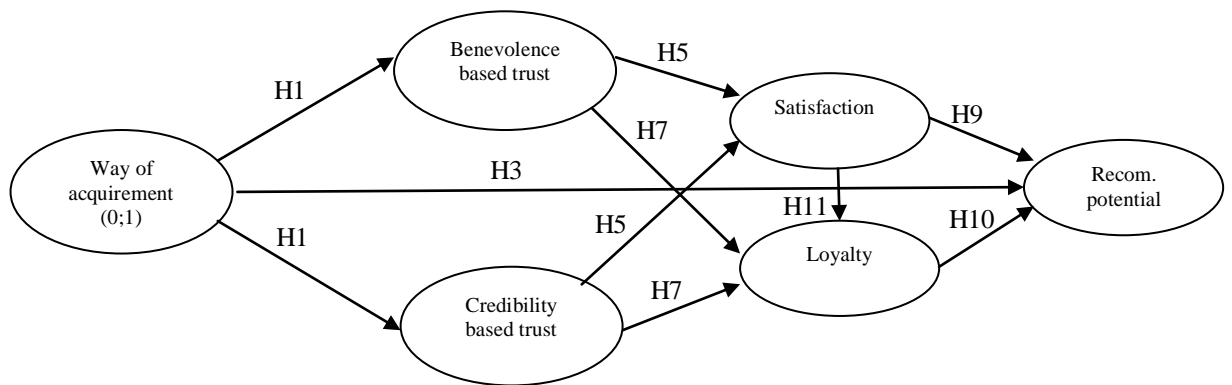


Figure 14. Depiction of the hypotheses in the structural model (self-edited)

The individual methods will be shown in more detail in the chapter parts detailing the application of those methods. But before we come to this, we need to prepare the data, primarily the management of the missing values is needed, and respectively the examination of the distribution of the initial data set is needed.

### 8.7. Handling missing data

Before commencing the analysis, the control, cleaning and evaluation of the missing data is needed. In the sample the ratio of the missing data is 4.5% on average per variable.

As the size of the sample is relatively low, its not worth omitting the cases with missing values from the listwise process from the analysis. The omission of the particular values (pairwise process) would lead to the loss of data, respectively balancelessness, so we considered the substitution of the missing data worthwhile.

The management of missing data has an especially great significance in the structural equation modelling, ignoring the missing data, especially the systematic missing data, may result in the total distortion of the model (Weiber and Mühlhaus, 2010). Weiber and Mühlhaus (2010) differentiate between three groups of missing values, which are not missing at random, missing completely at random and missing at random data. In the first group the occurrence of the missing data depends on "the real" non-observable data. In the second group the missing data are totally random, and do not depend on other missing or existing data, or the "real data." In the third group the missing data can be attributed to another variable or other variables (e.g.: demographic variable) and not the observed variable. Following the analysis of the missing data we have concluded that the missing data in our database can be listed in the second group, connection with another variable was not observable. For the management of this type of missing value Weiber and Mühlhaus (2010) recommend the maximum likelihood estimation. Carter (2006), also lines up several reasons for this, and analyses the various methods in detail and summarizes their advantages and disadvantages (Carter, 2006).

AMOS uses the so-called Full-Information-Maximum-Likelihood estimation which provides a consistent and statistically effective estimation for this type of data (Weiber and Mühlhaus, 2010), however, AMOS does not calculate the so called modification indices, which we needed to establish the final model, therefore we did not apply this method.

The substitution of the missing data in SPSS was carried out with the help of the so-called EM algorithm, which is one of the most widespread processes, and has the right attributes (Weiber and Mühlhaus, 2010).

### **8.8. The examination of the distribution of the variables**

With the structural equation model, the estimation processes applied at the covariance analysis (Maximum-Likelihood and Generalised-Least-Square) assume the multi normal distribution of the variables, which we have tested with the help of SPSS (individual variables) and AMOS (varying structure).

In SPSS we have tested the normal distribution of the particular variables with the help of the Kolmogorov-Smirnov and the Shapiro-Vilk test (Sajtos and Mitev, 2007).

The results of the tests (sig.) show that the test's null hypothesis cannot be rejected, that is to say, that the variables are of not normal distribution (see annex. 11.3 ). This result does not differ from the expectations, because the evaluation scales applied in the economic and social researches do not generally show a normal distribution (pg.62) (Scholderer et al., 2006). The applied tests (KS and SW) however, interpret the criteria of normal distribution very strictly, such strict evaluation is not necessarily needed in the case of the methods applied by us (Weiber and Mühlhaus, 2010). Next we have examined whether the criteria of multinormal distribution are violated.

With the help of the AMOS 20.0 (IBM software) we have examined which are the cases which significantly differ from the rest with the help of the Mahalanobis distance (Weiber and Mühlhaus, 2010). We have identified three cases, which's distant indicator (161, 84, 227), these were excluded from further analysis.

The multi normal distribution's indicator exceeds the expected threshold level, but because the applied estimation methods are robust as regards the fulfilment of the multi normal distribution, we assume that this does not influence the fit of the model (Weiber and Mühlhaus, 2010).

### **8.9. Explorative factor analysis and variance analysis**

For the testing of the H2, H4, H6, and H8 hypotheses we have used explorative factor analysis, followed by the variance analysis of the thus created factors. We have used SPSS 19.0 (IBM software) to make the calculations.

Explorative factor analysis (hereafter referred to as factor analysis) is suitable for the management of the frequent phenomenon in social sciences according to which more indicators are necessary (directly measurable manifest variable) for the description of a particular latent construction ( not directly measurable). Factor analysis indicates processes which's primary aim is the reduction and the summary of data. During the course of the analysis we examine the relationship between the mutually interdependent variables, and present the mutually interdependent variable based on less explanatory factors. The aim of the process may be the identification of the explanatory factors, the identification of the uncorrelated factors which are less in number than the initial factors, or the identification of some variables which are of outstanding importance. Factor analysis is a collective concept, there are several

methods for the creation of factors, from among which the aim of the research is the primary defining factor (Backhaus et al., 2005).

The starting out condition of the factor analysis is the existence of metric data, which in our case is given, as we have measured all variables on the five point Likert scale, which can be regarded as metric (Malhotra and Simon, 2008). A condition pertaining to the sample size is that the number of data should be at least thrice the number of the examined variables. In the case of our sample this condition is fulfilled (the number of examined variables:  $15 \times 3 = 45 < 234$ ).

The normal distribution of data is not a condition of factor analysis, however, the similarity of the distribution of the factors to one another (see annex. 11.3 ) is worth examining (Backhaus et al., 2005). The distribution examination shows more significant differences in the case of two latent variables, namely in the case of loyalty and benevolence based trust. In the case of loyalty the skewness and kurtosis values of the indicator group connected to the two dimensions (active and passive) show a significant difference, while the fourth indicator of benevolence based trust differs from the rest as regards these indicators. In connection with the loyalty scale, we have already experienced the significant difference between the two dimensions in the case of fuel research (Measurement of customer satisfaction among the clientele of MOL 2008).

We attribute the difference between the dimensions to the high price sensitivity, which had already gained proof in connection with the Hungarian consumers in several researches (Koltay and Vincze, 2009, Sikos and Kovács, 2011).

In the case of the fourth indicator of the benevolence based on trust ("the company has even made a sacrifice for us") already during the course of the questioning we were informed that the questioned persons don't fully understand this statement and consider it an exaggeration.

Our research showed that in the case of the examined product, and target group respectively, this statement is not relevant, while we have not experienced such feedback in the case of the other indicators of the variable.

In our research we have used principal component analysis, which's purpose is to determine the smallest number of those factors which explain the most variables. During the course of the analysis we take into account the complete variance of the



data, the diagonal of the correlational matrix is composed of 1s (starting communality) and the complete variance is put into the factor model. The thus created factors are called principal components (Malhotra and Simon, 2008).

We examined the fit of the starting data for factor analysis with the Kaiser-Meyer-Olkin (KMO) indicator and the Bartlett spherical test.

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,916
Bartlett's Test of Sphericity	Approx. Chi-Square	3355,580
	df	153
	Sig.	,000

Table 4. Result of KMO and Bartlett test (SPSS/self-edited )

According to the KMO indicator calculated on the basis of the anti-image correlation matrix there is a connection between the starting variables, therefore analysing the factors makes sense. The KMO values located in the diagonal of the anti-image covariation matrix are in every case above 0.8. The result of the Bartlett test shows that the correlation matrix significantly differs from zero (however, we do have to add that the variables are not in conformity with condition of the normal distribution of the Bartlett test). Thus the data are suitable for analysis according to both indicators: the KMO indicator being  $>0,7$ , and the Bartlett test Sig. $<0,05$  (Backhaus et al., 2005).

In order to make the factor matrix better interpretable we use rotation (the turning of the factors) with which we would like to achieve that each individual factor should only have non-zero or significant coefficient. Because based on the theory we can assume that the factors are correlated we apply oblimin rotation (Malhotra and Simon, 2008). During the factor analysis we have endeavoured to achieve the five factor solution as the a priori criterion, as our starting variables are the validated indicators of five scientifically based latent variables. During the course of the analysis we have found differences in the case of two variables when compared to the expected factor structure (loyalty, benevolence based trust) which was already foreshadowed by the distribution test. To solve the problem, we have omitted the fourth indicator of benevolence based trust in further parts of the analysis. We treat the two dimensions of loyalty as two separate latent variables, thus instead of the originally planned five factor solution we have chosen the six factor solution.

The variance share explained by the created six factors is 82.2% which is above the expected 60% threshold value (Sajtos and Mitev, 2007). The factor weight matrix post rotation is as follows:

Structure Matrix						
	Component					
	1	2	3	4	5	6
TRU_CR_1	,912					
TRU_CR_2	,904					
TRU_CR_3	,851					
TRU_CR_4	,789					
SAT_2		,938				
SAT_1		,938				
SAT_3		,895				
TRU_B_2			,924			
TRU_B_3			,910			
TRU_B_1			,811			
LOY_4				,928		
LOY_5				,874		
LOY_3				,857		
REC_3					,898	
REC_2					,879	
REC_1					,839	
LOY_P_1						,934
LOY_P_2						,850

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Table 5. Factor weight matrix post rotation (SPSS/self-edited)

The coefficients of the table, the factor weights and the correlational coefficients between the variables and the factors are in every case above the expected 0.5 (Backhaus et al., 2005).

The indicators belonging to one latent variable are visibly well lined up under a particular factor. For the examination of the fit of the model the difference between the observed and reproduced (estimated from factor matrix) correlation matrix (residual correlation) was observed. In case big residuum's are a lot, the factor model does not fit well to the data. As regards our sample we have found a residual correlation value higher than 0.05 in 18 cases, (17%) and in 2 cases a value higher than 0.1, therefore we can regard this fit as acceptable (Malhotra and Simon, 2008).

An applicable method for the validation of the result of factor analysis is the so called cross validity test, which's essence is that the sample is broken down into two randomly selected parts and the factor analysis is then carried out in both parts (Sajtos and Mitev, 2007). To perform this we have selected 50% of the sample at

random with the help of SPSS and the thus created factor structure did not differ from the factors created for the whole sample.

As a result of the factor analysis we were able to create six factors in accordance with the advance theoretical concept, and these are: benevolence based trust, credibility based trust, satisfaction, active and passive dimensions of loyalty and the recommendation potential.

A possible method of using the results of the factor analysis further is the so called factor value method, which after the saving of the created factors, uses the factor value calculated and pertaining to all those questioned for the purpose of further analysis (Sajtos and Mitev, 2007, Malhotra and Simon, 2008). Henceforth we are going to use the values of the six factors created by us for an aspect variance analysis (ANOVA) for testing our H2, H3, H5 and H7 hypotheses. The aim of the variance analysis is to ascertain whether there is a difference between the nominal group forming variable (dichotomus) of the average between the examined metric variables in the aspect of (satisfaction factor, loyalty factor, recommendation potential factor).

The starting conditions of variance analysis are the normal distribution of the vertical variable and variance homogeneity. Often used methods to examine the condition of normal distribution are the Kolmogorov-Smirnov and the Shapiro-Wilk tests (Sajtos and Mitev, 2007), which's null hypothesis is that the distribution differs from the normal distribution. In the case of the examined variables we cannot reject this, because the significance values do not exceed the 0.05 value (see annex ), thus the vertical variables do not meet the criterion of normality. However, Sajtos and Mitev (2007) draw the attention to the robustness of the F-test, which means that the non-fulfilment of the criteria does not have a significant influence on the probability of committing the primary and secondary kind of mistakes which are committable with the test, in other words, it cannot ruin the validity of the conclusions.

The aim of the variance homogeneity examination is to ascertain whether the vertical variable has the same distribution besides the same distribution levels of the independent variable. To examine this the Levene test can be applied (Katz et al., 2009). The null hypothesis of the test is that the variance of the vertical variable is the same beside the various levels of the independent variable. We could not reject this null hypothesis following the examination of the sample in the case of one of the

independent variables, beside the 0.1 threshold value (see annex. 11.3.), thus the criterion of variance homogeneity is fulfilled in the case of every variable.

In the table below the averages of the factor values and their deviances are shown. As the factors are standardized variables the value of the mean on the full sample is 0 and Std. Deviation is 1.

AQUIS		SAT Satisfaction	TRU_B Benevolence based trust	LOY_A Active loyalty	LOY_P Passive loyalty	REC Recommendat ion potential
Customer acquired through other method	Mean	-,1287748	-,0180507	-,1847418	-,0558288	-,1847418
	N	132	132	132	132	132
	Std. Dev.	1,03616715	1,01926516	1,05139659	1,04112459	1,05139659
Customer acquired through recommendation	Mean	,1666498	,0233597	,2390776	,0722490	,2390776
	N	102	102	102	102	102
	Std. Dev.	,92987351	,97901365	,87796353	,94428951	,87796353
Total	Mean	,0000000	,0000000	,0000000	,0000000	,0000000
	N	234	234	234	234	234
	Std. Dev.	1,00000000	1,00000000	1,00000000	1,00000000	1,00000000

Table 6. The means and deviations of factor values (SPSS/self-edited)

From the data it can be seen that in the case of the mean every examined variable is higher in the case of the customers acquired with recommendation. We tested the differences between the means with the help of ANOVA (F-test) which's result is shown in the table below:

		Sum of Squares	df	Mean Square	F	Sig.
SAT * AQUIS	Between Groups (Combined)	5,022	1	5,022	5,11	<b>0,025</b>
	Within Groups	227,978	232	0,983		
	Total	233	233			
TRU_B * AQUIS	Between Groups (Combined)	0,099	1	0,099	0,098	0,754
	Within Groups	232,901	232	1,004		
	Total	233	233			
LOY_A * AQUIS	Between Groups (Combined)	0,251	1	0,251	0,25	0,617
	Within Groups	232,749	232	1,003		
	Total	233	233			
LOY_P * AQUIS	Between Groups (Combined)	10,335	1	10,335	10,769	<b>0,001</b>
	Within Groups	222,665	232	0,96		
	Total	233	233			
REC * AQUIS	Between Groups (Combined)	0,944	1	0,944	0,944	0,332
	Within Groups	232,056	232	1		
	Total	233	233			

Table 7: Result of variance analysis (ANOVA) (SPSS/self-edited )

The test's null hypothesis is that the means of the variables are the same in the case of the two sub-groups (acquired with recommendation, not acquired with recommendation). It can be seen from the last column of the table, that in the cases of benevolence based trust (TRU\_B), recommendation potential (REC), and active loyalty (LOY\_A) the null hypothesis cannot be rejected besides the usual 5% significance. In the case of satisfaction (SAT) and the passive dimension of loyalty (LOY\_P) variable the null hypothesis can be rejected, that is, there is a significant difference between the mean of the two examined groups.

Taking the results of the variance analysis into account, we take the following decisions in connection with the hypotheses of the research. We reject the H2 hypothesis according to which the value of benevolence based trust in the case of customers acquired with recommendation. We also reject the H4 hypothesis according to which the recommendation potential is higher in the case of customers who came with recommendation. We accept the H6 hypothesis according to which the customers acquired with recommendation are more satisfied than the customers who were acquired with other methods. We accept the H8 hypothesis as pertaining to the passive dimension of loyalty in the case of customers acquired with recommendation who prove to be more loyal than the customers acquired with non-recommendation. We have summarized the result of the hypothesis test in the table below:

	<b>Content of hypothesis</b>	<b>Result of test</b>
H2	By customers acquired through recommendation the level of benevolence based trust is higher than by customers acquired not through recommendation.	rejection
H4	The recommendation potential is higher by customers acquired through recommendation.	rejection
H6	Customers acquired through recommendation are more satisfied.	acceptance
H8	The customers acquired through recommendation are more loyal, than the customers acquired not through recommendation.	acceptance with limits <sup>4</sup>

Table 8. The result of the hypothesis test based on the variance analysis carried out on factors (self-edited)

For the examination of the further hypotheses which are directed at the deeper

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<sup>4</sup> The hypothesis is accepted only for the passive dimension of the loyalty

understanding of the above connections we apply the method of structural equation modelling. Taking into account the result of explorative factor analysis, we treat the two dimensions of loyalty separately in the structural model, so below is what the model looks like:

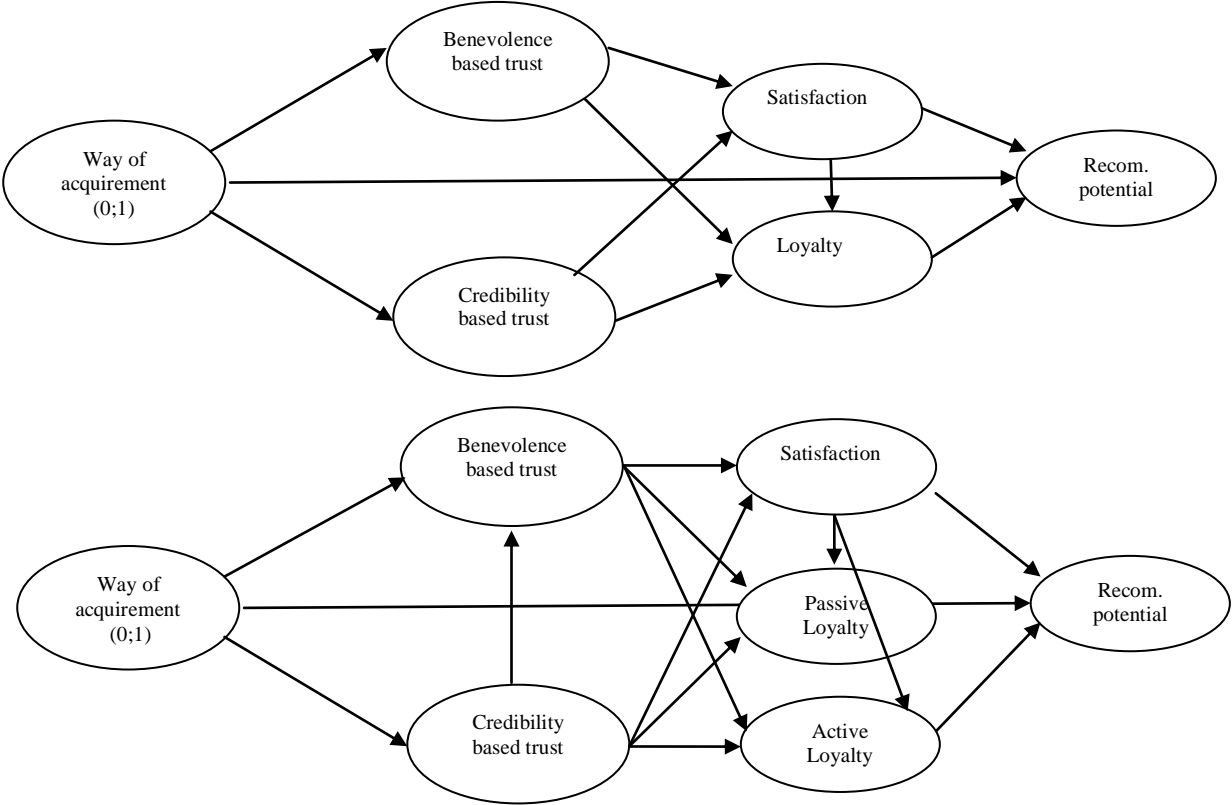


Figure 15. The separation of the two dimensions of loyalty (self-edited)

**8.10. The validation of the measurement model for the application of the Structural Equation Modelling (SEM)**

The method of structural equation modelling is very often applied for the validation of scales (confirmatoric factor analysis) and for the testing of the connections between the variables (Gefen et al., 2000). We differentiate between techniques based on variance and covariance, the AMOS (Analysis of MOment Structures) used by us is based on covariance. AMOS is suitable for the testing of the whole model while the variance based PLS (Partial Least Squares) tests only the connections between the latent variables, and is not suitable for the testing of the fit of the complete model (Hair et al., 2011). The aim of our present research is to test a

model which is based on theory and in which we measure the latent variables with the help of validated reflective measurement scales.

Before anything else, we have to examine whether our sample meets the criteria required by SEM. As the first step, we examine whether the required sample size is able to apply the model. There are several points of view in literature for the determination of the sample size. Bentler and Chou (1987) use the so-called  $n/q$  rule for the determination of the necessary number of the sample, here  $n$  stands for the number of elements while  $q$  means the number of parameters estimated in the model (Bentler and Chou, 1987). According to the rule, the number of elements has to be at least five times the number of parameters, that is to say  $n/q > 5$ . In the model the number of estimated parameters is 70 and  $238/70 = 3,4$ , thus our sample does not meet this criterion. Bagozzi (1981) allows an even smaller sample than this, the rule set by him is:  $n - q > 50$ , which in our case is  $238 - 70 = 168 > 50$ , and the sample meets this (Bagozzi, 1981). According to Hair et al (2010) a sample of a minimum of 200 elements is needed for the equality model, and our sample also happens to fit this (Hair et al., 2010). Taking into account all of these criteria, we regard the sample at our disposal as suitable.

### **8.11. The fulfilment of the quality criteria**

When evaluating the quality of the empirical researches we have to examine three factors, these are: objectivity, reliability, and validity (Malhotra and Simon, 2008).

*Objectivity* means that the research's results are independent of the researcher's person, and in case the research were be done by two different researchers they would reach the same result. We can speak of the objectivity of the research process, and the objectivity of analysis and interpretation. As it is the quantitative research which stands in the focus of the empirical research, we limit the evaluation of quality criteria to this.

The objectivity of the research process is increased by the fact that the research was conducted with the help of an independent market research company which was independent of the researcher's person, the company had no information about the scientific purpose of the research, its presumptions etc. The analysis of the data was done with the help of quantitative statistical methods, and the interpretation of the results was done based on the previously explored and validated results and

connections researched from literature.

*Reliability* means the exclusion of random errors (Homburg and Krohmer, 2003), thus ensuring the repeatability of the results among unchanged circumstances (Homburg and Krohmer, 2003).

The first examined criterion is inner consistence, of which an often used measurement number is the Chronbach alpha index (Cronbach, 1955), which provides a reliability estimation of the scale items' average coefficients resulting from every possible division of the scale's items into two. Several criticisms have been levelled at the index number, according to these in case of latent constructions the index number fails to provide a precise estimation, respectively, the value of the coefficient increases along with the number of items belonging to the scale, thus, in the case of the latent variables they recommend the application of composite reliability, hereafter referred to as CR which is connected to the one indicator reliability index (Fornell and Larcker, 1981, Hair et al., 2010).

<b>Name of variable</b>	<b>Source of scale</b>	<b>Number of indicators</b>	<b>Chronbach alpha</b>
Satisfaction	(Cronin Jr et al., 2000, Oliver, 1997)	3	0.916
Loyalty	(Ganesh et al., 2000)	5	0.842
Active loyalty	(Ganesh et al., 2000)	3	0.869
Passive loyalty	(Ganesh et al., 2000)	2	0.824
Benevolence based trust	(Kumar et al., 1995a)	4	0.731
Benevolence based trust (modified)	(Kumar et al., 1995a)	3	0.851
Credibility based trust	(Kumar et al., 1995a)	3	0.897
Recommendation potential	(Zeithaml et al., 1996)	3	0.851

Table 9: The Chronbach alpha indicators of the applied scales (self-edited )

In our case the latent constructions' Chronbach alpha and CR values (Table 10.) are above the expected threshold value (0.7) (Hair et al., 2010), therefore the inner consistence of the scales can be regarded as suitable.

The next step is to examine the reliability of the indicators as well. In this regard it is an expectation that the correlation value between the indicators and the latent variables reaches at least 0.7. In case the CR indicators and the fit of the model is



significantly improved by this, then the removal from the model of the indicators which show a correlation of less than 0.7 is worth considering (Henseler et al., 2009).

*Validity* means the systematic exclusion of errors, this ensures that we really do measure what we wish to measure (Homburg and Krohmer, 2003).

We differentiate between various forms of validity, according to the classification of Homburg and Klarmann (2009) we can speak of validity of statistical inference, internal validity, construct validity and external validity (Homburg and Klarmann, 2009). According to Henseler et al (2009) we can differentiate between content validity, convergent validity and discriminant validity. Weiber and Mühlhaus (2010) in addition to the grouping of Henseler et al. (2009) differentiates between criterion validity, construct validity and nomological validity.

Hereafter we will present the concepts connected with validity according the systematization of Weiber and Mühlhaus (2010) adding Nyíró's (2010) interpretation and the index numbers recommended by Henseler (2010).

*Content validity* expresses as to what extent in a content and semantic sense the indicators used for measuring a latent variable are able to represent it and as to what extent they are able to map its content (Weiber and Mühlhaus 2010, pg 128.). Content validity in our case means the thorough review of literature and the careful choice of the applied scales.

*Criterion validity* exists when a high connection can be shown between the measurement of one variable and a valid external (Weiber and Mühlhaus 2010, 129.o). In case such a comparison point is at our disposal the relationship of the two measurement numbers to each other can be checked with correlation calculation. In our case no such benchmarks are at our disposal.

*Construct validity* exists when the measuring of one variable is not distorted by another variable or a systematic error. It can be regarded as given in case convergence, discriminant, and nomological validity can be confirmed (Weiber and Mühlhaus 2010, 131.o). Convergence, discriminant, and nomological validity can be regarded as parts of the construction.

*Convergent validity or similarity validity* exists when the measurement results with one variable are the same in the event of two different kinds of measurement methods.

In case of social sciences it is often difficult to carry out two tests with different methods, an example of this is the questioning and the measurement of the very same variable (Weiber and Mühlhaus 2010, pg.132.). Fornell and Larcker (1981) recommend the use of Average Variance Extracted AVE to measure the validity of convergence.

*Discriminant validity* exists when the measurements of the various variables significantly differ from each other. This validity refers to the fact that the scale does not correlate with the measurement of such other concepts from which it should differ bases on the theory (Weiber and Mühlhaus 2010, pg 134). Weiber and Mühlhaus (2010) first recommend the examination of the reliability of the indicators and then the execution of factor analysis. In case during the course of this analysis the desired structure can be produced, that is to say all indicators are lined up under the latent variable to which it belongs to according to the operationalization, then this is a good starting point for the discriminant validity. Next, they recommend the execution of two confirmatory factor analyses, where in the second the correlation value between the latent variables is fixed as 1, and with the comparison of the two models conclusions can be deducted regarding the discriminant validity, which can be regarded as confirmed in case the second model's fit indicators are weaker than those of the first. Another often applied possibility is for the control of discriminant validity is the so-called Fornell-Larcker criterion (Fornell and Larcker, 1981), which requires stronger criterion than the previous method (Weiber and Mühlhaus 2010, pg 135.)

The essence of the Fornell-Larcker criterion is that the own indicators of a latent variable define its variance to a greater extent than the variance of other latent variables. Its requirement is, that the AVE indicator must be higher in every case of the latent variables, than the biggest coefficient of the given latent variable, with any other latent variable (Nyíró, 2011). Another index number, which is worth examining in the case of the latent variables, is the cross weight validity (Henseler et al., 2009). The criterion connected with this says that the correlation between indicator and the latent variable belonging to it must be greater, than the correlation of the indicator with any other variable (Nyíró, 2011).

*Nomological validity* is one part of construct validity, which exists in case the correlations between the variables can be supported with a nomological network

from a theoretical point of view. A theoretical concept and statements describing its correlations can be regarded as nomological network (Weiber and Mühlhaus 2010, pg: 131.). From the aspect of our research the most important nomological networks are customer value concept and social exchange theory, which we have elaborated on in detail in previous chapters.

In order to support the construct validity first a confirmatory factor analysis (CFA) is carried out. All indicators were involved in the starting model as the first step. The correlations between the indicators and the latent variables all meet the criteria of the 0.5 threshold value with the exception of two variables (benevolence based trust and loyalty). The fourth indicator of benevolence based trust we omit from further analysis in accordance with what described at the explorative factor analysis. All three correlational coefficients of the active dimension of loyalty is connected to the latent variable of loyalty with low weight, so these are shown as separate variables in the model. The original and the modified factor structure and the coefficients belonging to the indicators are shown in the table below.

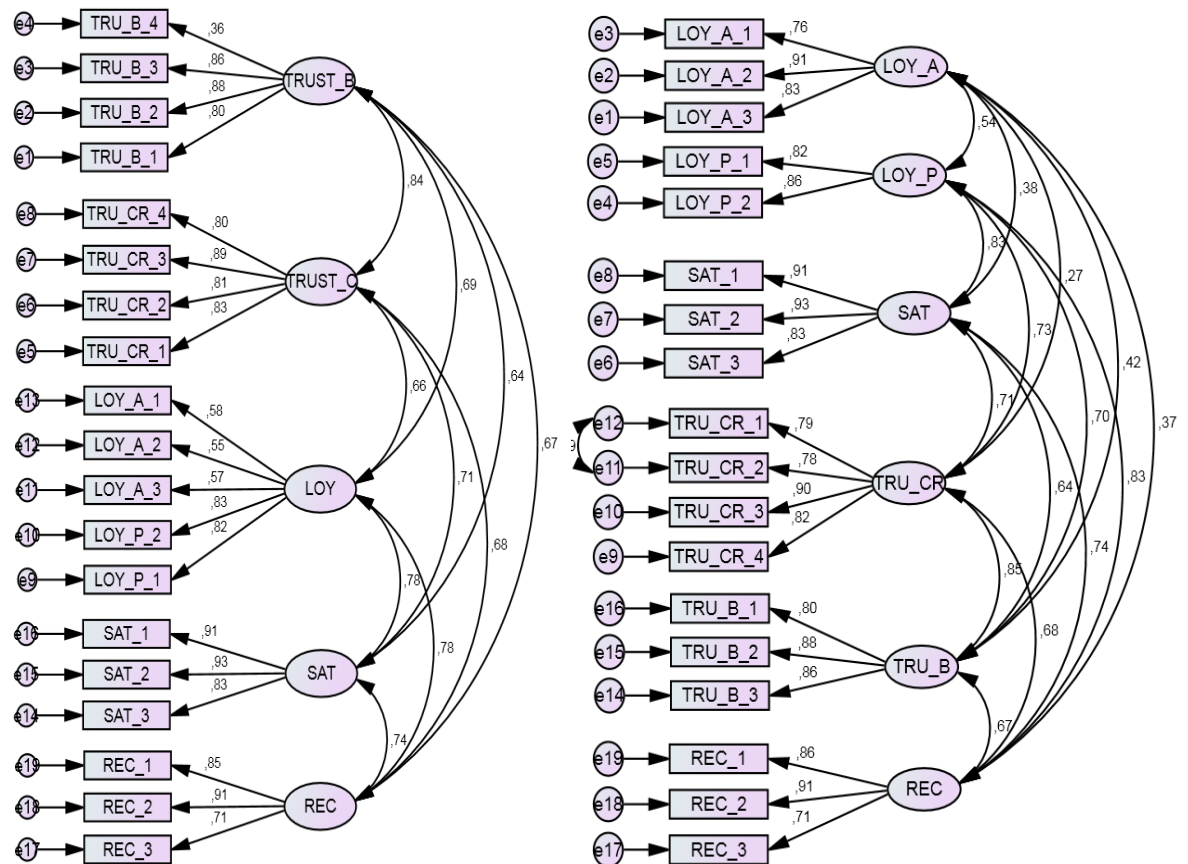


Figure 16. The development of the measurement model (AMOS/self-edited)

The fit indices of the final confirmatory model are shown in the table below. The calculations were done in Excel.

<b>Name of variable</b>	<b>Indicators</b>	<b>Std. regr. weight (&gt;0,7)</b>	<b>CR (&gt;0,7)</b>	<b>AVE (&gt;0,7)</b>
SAT (Satisfaction )	SAT_1	0,831	0,983	0,952
	SAT_2	0,928		
	SAT_3	0,910		
LOY_A (Active loyalty )	LOY_A_1	0,834	0,979	0,940
	LOY_A_2	0,908		
	LOY_A_3	0,760		
LOY_P (Passive loyalty)	LOY_P_1	0,861	0,976	0,953
	LOY_P_2	0,818		
TRU_B (Benevolence based trust)	TRU_B_1	0,862	0,975	0,930
	TRU_B_2	0,880		
	TRU_B_3	0,803		
TRU_CR (Credibility based trust)	TRU_CR_1	0,817	0,982	0,933
	TRU_CR_2	0,905		
	TRU_CR_3	0,776		
	TRU_CR_4	0,790		
REC (Recommendation potential)	REC_1	0,708	0,976	0,930
	REC_2	0,915		
	REC_3	0,855		

Table 10: Composite Reliability (CR) and Average Variance Extracted (AVE) indicators (self-edited)

The calculation of the CR and AVE indicators was done with the help of Excel based on the formulae defined by Fornell and Larcker (1981). From the above tables it can be seen that the Fornell-Larcker criteria according to which the AVE indicator has to be greater than the regression weight's square is met, as every regression weight is smaller than the AVE indicator, thus its square will be definitely smaller. Cross validation validity according to which all indicator weight is the highest with its own latent variable is also met (see. annex 11.3).

The general indicator of the model's fit is the Chi square test, to which the null hypothesis test belongs, namely that the empirically created model fits the data (Hair et al., 2010). As the Chi square got a lot of criticism, according to which it is sensitive to the sample size and the parameters involved in the analysis, respectively the normality of the starting variable (Jöreskog and Sörbom, 1993), several other indices were developed.

There is no global index number for the examination of the fit of the model, it can be

ascertained with the combination of several different indices as to what extent the model fits the data. According to Weiber and Mühlhaus (2011) the „good” model has the following traits:

- with its help the empirical variance-covariance matrix can be predicted with as few faults as possible (absolute indices ),
- the number of parameters to be estimated are as low as possible,
- it is significantly better than the basis model which is based on the random relations between data (comparative indices).

We take into account the indices recommended by Weiber and Mühlhaus (2010) and calculable with the help of AMOS in the table below:

Model fit index	Acceptance criterion	Estimated value	Evaluation
RMSEA	$\leq 0,06$ (Hu and Bentler, 1999) $\leq 0,07$ ha $CFI \geq 0,92$ (Hair et al., 2010)	0,065	criterion fulfilled
CMIN/d.f	$\leq 3$ (Bentler, 1990)	1,983	criterion fulfilled
NFI	$\geq 0,90$ (Hair et al., 1992)	0,932	criterion fulfilled
TLI	$\geq 0,90$ (Homburg and Baumgartner, 1996)	0,954	criterion fulfilled
CFI	$\geq 0,90$ (Homburg and Baumgartner, 1996)	0,965	criterion fulfilled

Table 11. The fit indices of the measurement model (self-edited)

RMSEA (Root Mean Square Error of Approximation) is an index based on the analysis of the residuum, with its help we can carry out a hypothesis test on the differences between the observed correlation/covariance and the reproduced values.

CMIN/d.f. ( $\chi^2$ /degree of freedom) is an absolute fit index which compares the goodness of the model to the situation where there is „no model” (Byrne, 2001).

The NFI (Normed Fit Index), TLI (Tucker-Lewis Index) and the a CFI (Comparative Fit Index) belong to the incremental or comparative indices which relate to one basis model specified during the course of the analysis (About the contents of the indices see in detail: Mühlhaus and Weiber, 2010. pg 159–161.)

Based on the fit indices it can be said about our model that the indices based on the analysis of the literature meet the expected criteria, so the fit of the model is good.

**8.12. The examination of the fit of the structural model**

The aim of the structural model created with the building in of the method of customer acquisition is to examine the direct effect of recommendation on the two dimensions of trust and the recommendation potential, and thus examine the mediating effect of trust between recommendation and the other examined constructions (satisfaction, loyalty and recommendation potential). The customer acquisition method in our case is not latent, but a directly measured manifest variable which can take on two values (0=customer acquired not with recommendation 1=customer acquired with recommendation), so it got built into the SEM model as a dummy variable (Crown, 2010, Sohn and Shim, 2010). This makes our structural model look like as shown below:

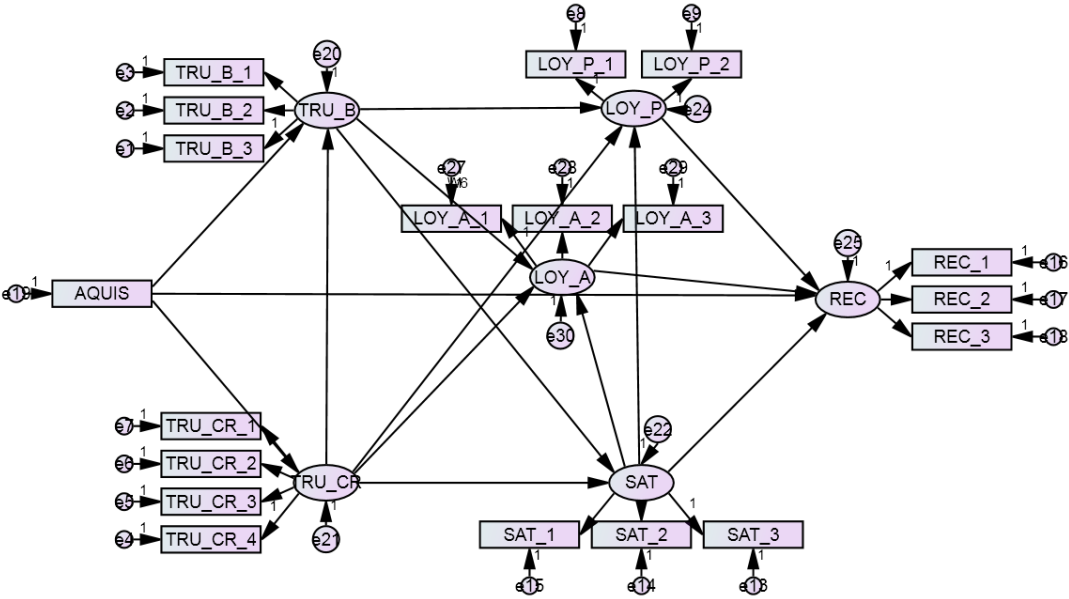


Figure 17. The structural model (AMOS/self-edited)

The fit indices of the model are as follows:

Model fit index	Acceptance criterion	Estimated value	Evaluation
RMSEA	$\leq 0,06$ (Hu and Bentler, 1999) $\leq 0,07$ and $CFI \geq 0,92$ (Hair et al., 2010)	0,074	small difference we regard it as fulfilled
CMIN/d.f	$\leq 3$ (Bentler, 1990)	2,260	criterion fulfilled
NFI	$\geq 0,90$ (Hair et al., 1992)	0,909	criterion fulfilled
TLI	$\geq 0,90$ (Homburg and Baumgartner, 1996)	0,935	criterion fulfilled
CFI	$\geq 0,90$ (Homburg and Baumgartner, 1996)	0,947	criterion fulfilled

Table 12. The fit indices of the structural model (self-edited)

As the models fit indices meet the expected threshold levels we can say that the model fits well on the data.

### 8.13. The presentation of the results of the structural model

We carried out the effects with the help of AMOS Software and the method of Maximum Likelihood estimation. The effects are summarized in the table below:

Latent variable	Direction of effect	Latent variable	Standardized regressive coefficient	P value <sup>5</sup> (accepted domain < 0,05)
AQUIS	--->	TRU_CR	0,053	0,445
AQUIS	--->	TRU_B	-0,048	0,274
AQUIS	--->	REC	0,008	0,852
TRU_B	--->	LOY_P	0,351	0,002
TRU_B	--->	LOY_A	0,737	***
TRU_B	--->	SAT	-0,081	0,545
TRU_CR	--->	TRU_B	0,861	***
TRU_CR	--->	LOY_P	-0,032	0,822
TRU_CR	--->	LOY_A	-0,901	***
TRU_CR	--->	SAT	0,831	***
SAT	--->	LOY_P	0,653	***
SAT	--->	LOY_A	0,671	***
SAT	--->	REC	0,103	0,431
LOY_P	--->	REC	0,788	***
LOY_A	--->	REC	-0,054	0,323

Table 13: The strength and significance of the effects in the structural model (self-edited)

<sup>5</sup> the probability that the C.R. (critical ratio=Estimate/S.E) is greater than 2,716, absolute value ,007. That shows that the average of the examined variable is significantly differs from 0..

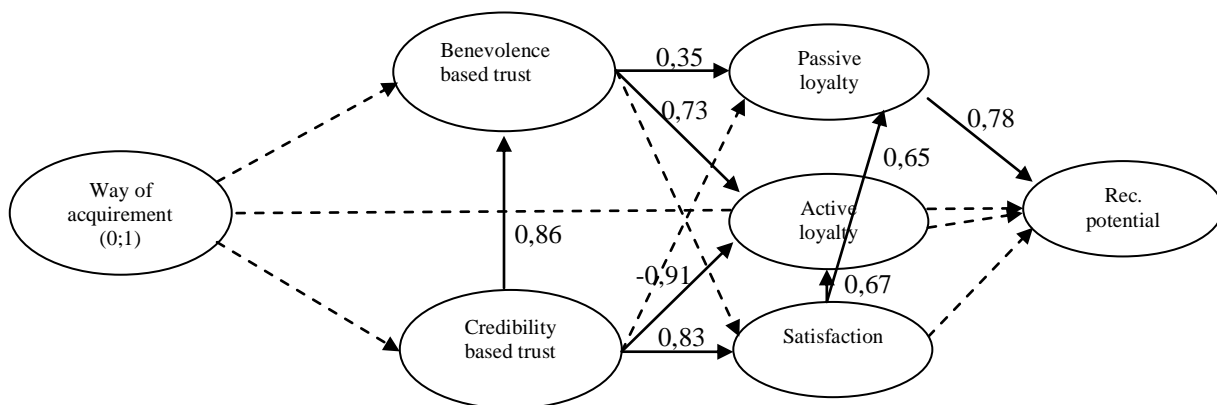


Figure 18. Presentation of effects (standardized regression coefficients) in the structural model (self-edited).<sup>6</sup>

The aim of building customer acquisition into the model was for us to examine the direct effect of the method of customer acquisition on the dimensions of trust and the recommendation potential. In addition, the purpose of the model's examination was the examination of the mediating effect of trust between recommendation and the other latent constructions. **Based on the results we can conclude that the method of customer acquisition (dummy variable: 0=not recommendation; 1=recommendation) does not have a significant linear effect on the dimensions of trust and the recommendation potential. Thus the mediating effect of trust between recommendation and the other examined variables was impossible to support.**

**Benevolence based trust has a significantly positive effect on both dimensions of loyalty.**

In the case of the motivation based dimension of trust, according to which one of the parties puts his trust in the other party's benevolence, helpfulness, positively influences the will of the customer to remain with the company. This kind of trust also influences the will to stay if the company was to raise prices or if another company would offer a better price or a better service provision. Regarding this aspect of trust, the results are the same as the results of previous researches were, according to which trust has a positive effect on loyalty (Gounaris et al., 2007, Harris and Goode, 2004). Benevolence based trust has no significant effect on satisfaction.

<sup>6</sup> The broken lines represent not significant effects at 5% significance level



**The credibility based dimension of trust has a strongly negative effect (-0,91) on the active dimension of loyalty.**

The ability based dimension of trust according to which one of the parties trusts that the other party has all the resources at his disposal for the expected performance, influences the active dimension of loyalty negatively. The more sure a company is that the other party is capable of performing in the expected quality, time etc. the less is the will to stay with the company should another company offer a better price or better service provision. In the background of this behaviour which diverges from our expectations may result from the fact that the better price or service offered by another also means the decrease in the level of credibility based trust. In case another company offers the same product at a better price or a better additional service it questions the credibility and ability (e.g.: effective operation) of the current partner. This effect is increased by the price sensitivity of Hungarians, the effect of the economic crisis (decrease in fertilizer prices, the tougher competition of fertilizer manufacturers and distributors) and the particulars of the product (physically controllable quality, standard composition, standard easy comparability).

Based on all of the above, the unambiguous positive effect of trust on loyalty cannot be shown. In the background of this on the one part stands the difference between the two dimensions of loyalty and on the other hand the previously perceived different traits of the two dimensions of loyalty.

**The credibility based dimension of trust has a positive effect (0,83) on satisfaction.**

While benevolence based trust has no effect on loyalty, credibility based trust has a positive effect on it. In case a company thinks its partner capable of performance on a good level he is more satisfied with the product of the partner.

**Satisfaction has a positive effect on both dimensions of loyalty.** The connection shown in previous researches according to which the satisfied customer is more loyal has won support. Significant effect of satisfaction on the recommendation potential was not shown.

**The passive dimension of loyalty has a positive effect on the recommendation potential, while in the case of active dimension significant effect cannot be shown.**

We have summarized the result of the hypothesis test in the table below:

	<b>Content of hypothesis</b>	<b>Result of test</b>
H1	The way of acquisition has a stronger positive effect on the benevolence based trust than on credibility based trust.	rejection
H3	The way of customer acquisition has a positive effect on the recommendation potential.	rejection

Table 14. The result of the hypothesis test carried out with the help of SEM (self-edited)

H1 hypothesis according to which the manner of customer acquisition has a stronger positive effect on the benevolence based dimension of trust than the dimension based on credibility was rejected, because we have found no significant effect between the dimensions of recommendation and trust.

H3 hypothesis, according to which the method of customer acquisition has a positive effect on the recommendation potential, was also rejected, because a significant effect between the examined variables could not be shown.

#### **8.14. The examination of the fit of the structural model to the Multi-Group-Analysis method (MGA)**

The other aim of our research is to understand more deeply the difference between the effects on the variables in the case of customers acquired through recommendation and customers acquired not through recommendation. For the examination and comparison of the two sub groups of the sample, the relevant method is Multi-Group-Analysis (analysis of multiple groups, hereafter referred to as MGA), which makes the simultaneous estimation of one model pertaining to several groups possible. The first step of the execution of the MGA is the testing of the invariance of the measurement model during the course of which in our case is done with confirmatory analysis adapted to a sample broken down into more groups, in this case two groups (customers acquired through recommendation and customers acquired not through recommendation). The following questions are in the focus of the invariance test of the measurement model (Weiber and Mühlhaus, 2010):

- do the indicators measure the same phenomenon in the case of both groups, can we use the same indicators to measure the latent variables in the case of both groups,
- are the structural connections of the hypothesis system set up and based on

the theory valid, and are these connections of the same strength in the case of both groups,

- are there significant differences between the two groups regarding the mean values of the latent variable.

We use the process of Maximum Likelihood (ML) estimation, which in the case of MGA is the most frequently used estimation method (Weiber and Mühlhaus, 2010). At the particular steps of testing the invariance, different models are estimated, in which a part of the parameters is fixed.

Using as a support Weiber and Mühlhaus (2010) the test of the invariance of the measurement happens in four steps which are built on one another. The first step is the testing of the configural invariance, which expresses that the factor weight matrices are the same in every case of the groups. This is the basic condition of the MGA, in case this condition is not met, the groups cannot be compared with one another. Taking the characteristics of the sample into account (Hungarian companies doing business in the same industry branch) content-wise, (the use of the same questionnaire) we can regard the pre-requisite of the configurative invariance as fulfilled. In addition, the estimations of the unconstrained model's factor weights significantly differ from zero, the correlations between the factors take up a value of 0,84 as a maximum, and the fit indices are below the threshold value: (CMIN/df: 2,046; RMSEA: 0,067; TLI: 0,909; CFI: 0,929).

The next step is the examination of metric invariance, which expresses that the factor weights are the same in each group. To examine this, we take into account the fit indices of the „Measurement weights” model. As these are below the expected threshold value (CMIN/df: 1,987; RMSEA: 0,065; TLI: 0,914; CFI: 0,929), we conclude that the model is in conformity with this requirement.

As the third step we examine scalar invariance which expresses that in addition to the factor weights the intercept of the factor weights are also the same in the two groups' measurement model. The fit indices in connection with this can be read from the „Measurement intercept” model. In case between the indices of this model and the indices of the previously evaluated Measurement weights model” worsening can be seen ( $>0,01$ ), then the model does not meet the requirement of scalar invariance. In our case a small change can be seen in the fit indices (CMIN/df: 2,046; RMSEA: 0,067; TLI: 0,909; CFI: 0,929), only the CMIN/df value gets worse in a bigger extent

than allowed, but even so it remains below the acceptance threshold (3) ,so we assume that the model fulfils the requirement of scalar invariance.

In case our model meets the three invariance criteria above, we can examine whether the requirement of measurement error invariance is also fulfilled. This is the case in the event that in besides the fulfilment of the first three invariance requirements the measurement models' errors are also the same as regards the groups. In case all four invariance criteria are complete we can speak of full scale factorial invariance, which means, that the measurement models pertaining to the groups are the same and are equally valid. In our case, the fit indices of the „Measurement residuals” model are as follows: (CMIN/df: 2,299 (2,046); RMSEA: 0,075 (0,067); TLI: 0,887 (0,909); CFI: 0,886 (0,929)). Comparing these we can conclude that the fit indices have worsened when compared with the free estimation model, therefore we cannot speak of full scale factorial invariance, however, the condition of partial measurement invariance is met (first three step grades), which can be regarded as acceptable for the further analysis of the model (Steenkamp and Baumgartner, 1998).

Following the testing of the invariance of the measurement model the structural models' mean values and effects can now be compared in the two groups:

The fit indices of the structural MGA model are as follows:

<b>Model fit index</b>	<b>Acceptance criterion</b>	<b>Estimated value</b>	<b>Evaluation</b>
RMSEA	$\leq 0,06$ (Hu and Bentler, 1999) $\leq 0,07$ ha $CFI \geq 0,92$ (Hair et al., 2010)	0,069	criterion fulfilled
CMIN/d.f	$\leq 3$ (Bentler, 1990)	2,102	criterion fulfilled
NFI	$\geq 0,90$ (Hair et al., 1992)	0,85	slightly below threshold value
TLI	$\geq 0,90$ (Homburg and Baumgartner, 1996)	0,904	slightly below threshold value
CFI	$\geq 0,90$ (Homburg and Baumgartner, 1996)	0,915	criterion fulfilled

Table 15: The fit indices of the structural MGA model (self-edited )

Above indices pertain to the „Measurement Intercepts” model with which's help we examine differences between the mean of the latent variables and their effects in the two groups. The fit indices of the other models estimated during the MGA calculations can be found in annex 11.3 Based on this the invariance of the structural

model was examined step by step just like the measurement model and we have found that it meets the expectations, that is to say that the differences between the two models do really show the differences between the two groups.

### 8.15. The presentation of the results of the structural MGA model

The structural MGA model is as follows:

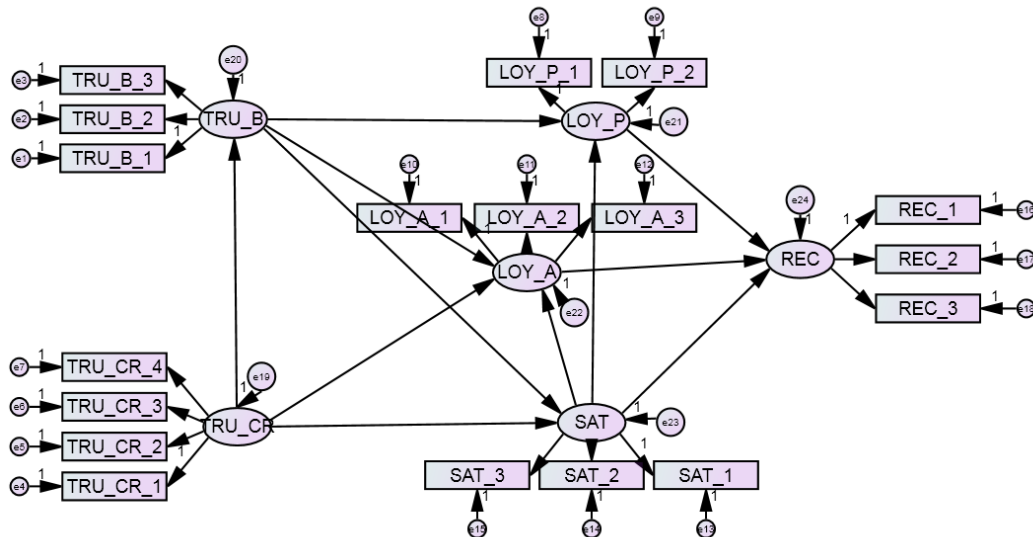


Figure 19. Structural model for the Multi-Group-Analysis (MGA) method (AMOS/self-edited)

Compared to the original model two effects were modified based on the modification indices as calculated by AMOS in the interest of improving the fit. The relationship between credibility based trust and loyalty was deleted. When describing the model we elaborated in detail about the relevance of the relationship between trust and loyalty, however concrete research results about the effects connected with the particular dimensions could not be found. Based on the concept of social exchange (an economic element does not directly participate in the exchange) it can be assumed that the motivation based dimensions of both latent variables (passive loyalty, benevolence based trust) and their dimensions based on abilities and affective elements (active loyalty, credibility based trust) are connected more closely to each other. In addition, we have also included the relationship between the two dimensions of trust. For the root-cause effect of these there is no unambiguous support to be found in literature either. Based on Gounaris (2002) both dimensions

can exist independently of each other, and also together with each other. Starting out from the social exchange theory the method of customer acquisition has an effect on trust, and as recommendation is a social type of exchange it has a stronger effect on the motivation based dimension of trust (benevolence based trust). Its effects on the trust dimension of customer acquisition cannot be examined directly with the help of MGA, therefore the root-cause relationship in this analysis has no significance.

The variables present in the final model are the two dimensions of trust (TRU\_B and TRU\_CR), the two dimensions of loyalty (LOY\_P and LOY\_A) and satisfaction (SAT) and the recommendation potential (REC).

First we examine the mean of the latent variables factor value. In the case of two variables a significantly differing value from 0 can be shown in the case of customers who came with recommendation, in the case of passive loyalty and satisfaction. As the other examined group's mean was fixed at 0, this difference also shows the difference between the two groups. Thus it can be concluded that in the case of customers acquired with recommendation and respectively non recommendation a significant difference was shown in the dimension of satisfaction and passive loyalty.

**In the case of customers acquired with recommendation both satisfaction and passive loyalty are higher.** In the case of the other examined variables the differences did not prove to be significant.

	Estimated factor value (Estimate)	Standard Estimation Error (S.E.)	P value (acceptance domain <0,05)
<b>LOY_P</b>	<b>0,182</b>	<b>0,067</b>	<b>0,007</b>
<b>SAT</b>	<b>0,14</b>	<b>0,068</b>	<b>0,041</b>

Table 16. The presentation of the factor value mean in the case of customers who came with recommendation (self-edited)

Next we are going to examine the differences of effects in the case of the two groups which we have compiled in the table below. The table contains the standardized regressive coefficients and the P-values (\*\*\*) pertaining to the „Measurement Intercepts Model” which is the basis of comparison in the case of the MGA model (Weiber and Mühlhaus, 2010).

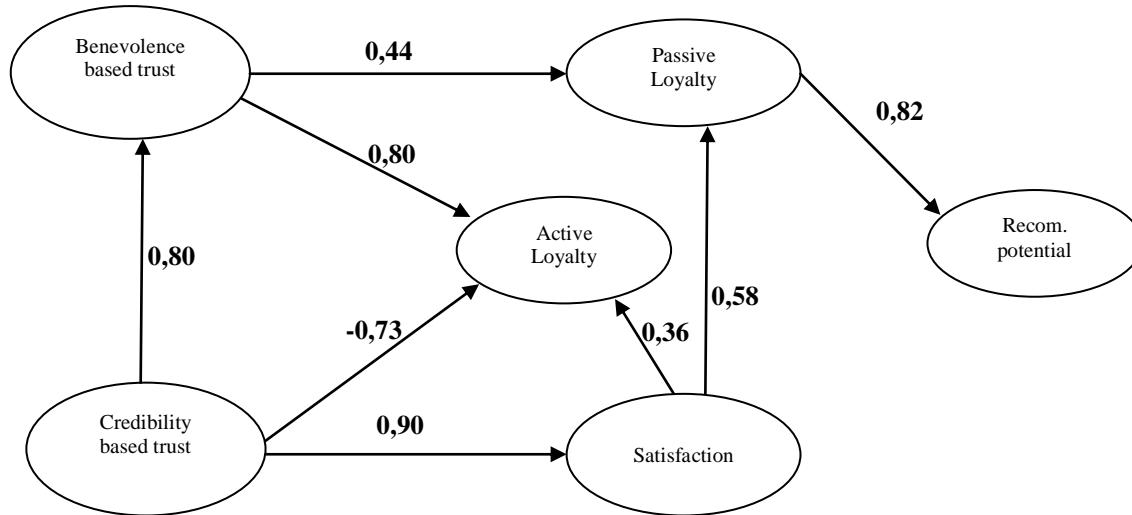
Latent variable	Direction of effect	Latent variable	Recommendation		Not recommendation	
			Std. regr. w.	P	Std. regr. w.	P
TRU_B	--->	SAT	-0,166	0,277	<b>0,515</b>	<b>0,01</b>
TRU_B	--->	LOY_P	<b>0,435</b>	***	<b>0,365</b>	***
TRU_B	--->	LOY_A	0,798	***	0,646	0,011
TRU_CR	--->	TRU_B*	<b>0,800</b>	***	<b>0,882</b>	***
TRU_CR	--->	SAT	<b>0,895</b>	***	0,232	0,241
TRU_CR	--->	LOY_A	-0,734	<b>0,014</b>	-0,555	<b>0,02</b>
SAT	--->	LOY_A	<b>0,351</b>	<b>0,05</b>	<b>0,425</b>	<b>0,002</b>
SAT	--->	LOY_P*	<b>0,583</b>	***	<b>0,578</b>	***
SAT	--->	REC	0,096	0,559	0,122	0,478
LOY_A	--->	REC	0,047	0,508	-0,11	0,162
LOY_P	--->	REC	<b>0,817</b>	***	<b>0,76</b>	***

\* the strength of the effect does not diverge with a 5% significance level between the two groups

Table 17. The strengths and significance of the effects in the two sub groups (self-edited)

We tested the significance of the difference in effects between the groups with the help of the T-test. The difference did not prove to be significant in two cases, with the usual 5% significance level, in case of the effect between the two dimensions of trust, and in the case of the effect of satisfaction on loyalty.

**Significant effects in the case of customers acquired through recommendation**



**Significant effects in the case of customers acquired not through recommendation**

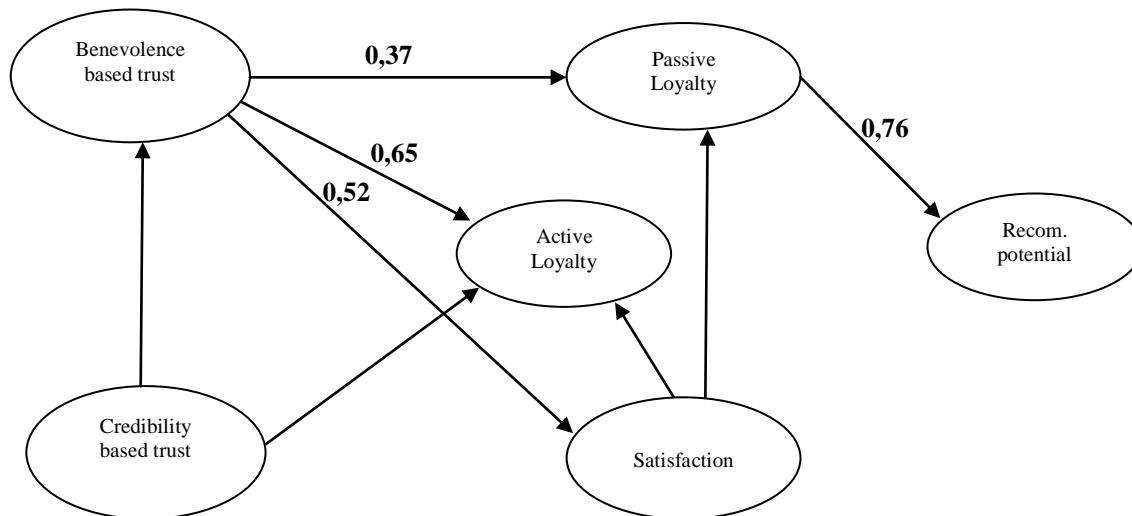


Figure 20. Significant effects (standardized regressive coefficients) depicted in the groups examined in the structural model (self-edited)

**8.15.1. The effect of trust on the other variables**

**Benevolence based trust has a positive effect on both dimensions of loyalty in the case of both groups, and the effect is stronger in the case of customers acquired**



**through recommendation.**

In the case of the dimension of trust based on motivation, according to which one party trusts in the benevolence and helpfulness of the other party, has a positive effect on the customer wanting to remain with the company. This kind of trust also influences the intention to say if the company should raise prices or another company would offer a better price or a better service provision. In the case of customers who came with recommendation this effect proved to be significantly stronger, which supports the moderating effect of recommendation between the dimensions of benevolence based trust and loyalty.

**However, the credibility based dimension of trust has a negative effect on the active dimension of loyalty in the case of both groups and the effect is stronger in the case of customers acquired with recommendation.**

The dimension of trust based on capability according to which one of the parties trusts that the other party has at his disposal all resources for the expected performance, influences the active dimension of loyalty negatively. In case of the customers who came with recommendation this effect is stronger, as presumably it would result in a big loss of prestige if at the partner company ( which we chose at somebody's recommendation, who recommended it because he was satisfied with it) somebody would offer a better price and better conditions for that same product. The behaviour can also be interpreted as the redundancy of the cognitive dissonance, in the sense that this is how the responding person tries to decrease the dissonance between his actual action „choice upon recommendation” and the seemingly rational behaviour „collection of objective information”, in order to emphasize seemingly rational switching in the case of the present product. Based on all of these the unambiguous positive effect of trust on loyalty could not be shown in the case of either group.

**Benevolence based trust only has a significant effect in the case of customers acquired with non-recommendation.**

The positive effect of trust on satisfaction was shown unambiguously in previous research (Castañeda, 2011, Chiao et al., 2008, Ryu et al., 2008, Şengün and Wasti, 2011).

The result of our research shows that in shaping satisfaction, in the case of customers

who came with recommendation it is credibility based trust, in the case of customers who came not through recommendation benevolence based trust is of significance. As in the case of customers acquired with recommendation the level of trust was higher, we can conclude that recommendation strengthens credibility based trust and trust shows a strong connection with satisfaction. Thus the company which comes with recommendation trusts more (based on the experience of the recommender) in the capabilities of the partner and this is what causes higher satisfaction.

The company which came with non-recommendation trusts more in the benevolence of the company, and this dimension of trust does not have such a strong positive effect on satisfaction as credibility based trust has in the case of customers acquired with recommendation.

The effect of credibility based trust on benevolence based trust is significant and strong to the same extent in both groups.

### **8.15.2. The effect of satisfaction on loyalty and the recommendation potential**

Satisfaction has a positive effect on passive loyalty which is strong to the same extent (0,58) in the case of both groups. As regards the active dimension of loyalty a positive effect can also be observed in the case of both groups, and this effect is somewhat stronger in the case of customers who came with non-recommendation (0,43, 0,36).

A significant effect of satisfaction on the recommendation potential was not shown in the case of either group.

### **8.15.3. The effect of loyalty on the recommendation potential**

In the case of both groups the passive dimension of loyalty has a positive effect on the recommendation potential, and the effect is stronger in the case of customers who came with recommendation (0,82, 0,86). One of the indicators of passive loyalty pertains to the recommendation potential, which partly explains this connection.

The other indicator pertains to the fact whether the company intends to stay with the partner for the long term, and as this indicator correlated more closely with the first indicator in the validated scale describing the passive dimension of loyalty (see

previous results) as it did with the recommendation potential construction, the effect can be regarded as a relevant and important research result. The active dimension of loyalty has no effect on the recommendation potential in the case of either group.

#### **8.15.4. The summary of the MGA research results**

The aim of our research was the linking of recommendation as method of customer acquisition and the recommendation potential as a behavioural trait into one model and the examination of the effect mechanisms through the two dimensions of trust.

Hypotheses H2, H4, H6 and H8 were already tested with explorative factor analysis and variance analysis method. With the help of MGA we have reached the same result, which confirms the previous results. In the value of the latent variables (mean of factor values), in the case of satisfaction and the passive dimensions of loyalty we have found significant differences between the two groups. The active dimensions of loyalty and the recommendation potential does not differ from each other in the case of the two groups.

H5 hypothesis, according to which trust has a positive effect on satisfaction was accepted by us. However, we have found a divergence in the case of the effect of the two dimensions between the two groups. In the case of the customers who came with recommendation we have shown a strong connection between the credibility based dimension of trust, whereas in the case of customers who came not through with recommendation the effective factor of satisfaction was benevolence based trust. **Thus, in the case of customers acquired through recommendation in besides the same level trust, credibility based trust has a stronger effect on satisfaction, which led to the stronger level of satisfaction.** Based on these we rejected hypothesis H5a.

In hypothesis H7 we assumed that trust has a positive effect on loyalty. In the case of the motivational dimension of trust the hypothesis was proved on both dimensions of loyalty, in the case of both groups, and the effect proved to be stronger on both dimensions of loyalty in the case of customers acquired with recommendation.

Thus in addition to the same level of the benevolence based trust, the trust in the partner's fair behaviour in the case of the customers acquired with recommendation, has a stronger effect on loyalty and this may contribute to the higher level of passive

loyalty in this group.

However, the dimension based on credibility based trust has no effect on passive loyalty and has a negative effect on the active dimension of loyalty. In the background of this might stand that the attitude of the questioned persons to loyalty essentially differs from passive loyalty. While the questioned seem to rather agree with statements such as „we are likely to remain customers of the company in the future" and " I gladly recommend the company", with the increase of the level of trust the questioned agree rather more still, with the indicators of active loyalty this is „I'd remain a customer even if prices were raised", if „someone were to offer a better price" the questioned seem rather more to disagree. The more one party trusts the other party's capabilities the bigger the disappointment would be if experiencing such a phenomenon, and this weakens the intention to stay. This effect is stronger in the case of customers acquired with recommendation. In the case of the effects pertaining to active loyalty we have thus found a significant difference between the two dimensions of trust, so we rejected hypothesis H7.

In hypothesis H7a we claimed that the effect of benevolence based trust is higher in the case of customers acquired with recommendation. As this effect proved to be true for both dimensions of loyalty we accept this hypothesis. This means that in the case of customers acquired with recommendation this dimension of trust is stronger (whereas with satisfaction recommendation strengthened the ability based dimension of trust).

The effect of satisfaction pertaining to the recommendation potential was not showable in the case of either groups, so Hypothesis H9 was rejected. From among the variables examined and pertaining to the recommendation potential passive loyalty had a significant effect in the case of both groups, and this effect is higher in the case of customers who were acquired with recommendation.

We have rejected H10 hypothesis according to which loyalty has a positive effect on the recommendation potential because we could only show the positive effect in the case of the passive dimension. From among the tested variables only the passive dimension of loyalty had a significant effect on the recommendation potential. Finally we have accepted the H11 hypothesis according to which satisfaction has a positive effect on loyalty.

	<b>Content of hypothesis</b>	<b>SEM/MGA</b>
H2	By customers acquired through recommendation the level of benevolence based trust is higher than by customers acquired not through recommendation.	rejected
H4	The recommendation potential is higher by customers acquired through recommendation.	rejected
H5	Both dimensions of trust have a positive effect on satisfaction.	rejected (dimensions differ)
H5a	Benevolence based trust has a stronger positive effect on satisfaction in the case of customers acquired through recommendation.	rejected
H6	Customers acquired through recommendation are more satisfied	accepted
H7	Both dimensions of trust have a positive effect on loyalty	rejected (dimensions are of contrasting effect )
H7a	The customers acquired through recommendation are more loyal, than the customers acquired not through recommendation.	accepted
H8	Satisfaction has a positive effect on the recommendation potential.	accepted
H9	Loyalty has a positive effect on the recommendation potential.	rejected
H10	Satisfaction has a positive effect on loyalty.	accepted (dimensions vary)
H11	The effect of benevolence based trust on loyalty is stronger by customers acquired through recommendation, than by customers acquired not through recommendation.	accepted

Table 18: The result of the hypothesis test carried out with the help of SEM/MGA (self-edited)

## **9. The summary of the results of the empirical research**

### **9.1. The summary of the results of the qualitative research**

The aim of the qualitative research is the examination of the relevance of the research theme and the indication of the focus of the research theme based on familiarity with company practice. Based on the exposed information we wished to get a picture about the characteristics of the customer value management used in Hungary, about the applied customer value models, pointing out the specifics of the local situation. We were curious about how customer value measurement, market segmentation and the applied set of tools of marketing are built on each other in the

interest of the maximization of customer value. We have conducted eight expert interviews with leading managers working in the field of marketing and controlling

We have broken down the analysis into two parts according to the size of the companies. The aim of customer evaluation at the explored small company is primarily the establishment of the balanced and secure operation, and planning. In addition to the fact that they evaluate the customers with RFM type model, frequent personal interactions make individual evaluation possible, as well as taking into account individual customer traits and demands. Innovation value gets a big emphasis, which though not quantified, but is taken into account at the calculation of a quote to see how open a customer to using the new and innovative technologies. In addition recommendation value has an emphasised role, because the marketing activity of the company is very limited, the acquisition of the new customers happens via recommendation with a few exceptions. With the existing clientele, they can also take into account in practice the difficult to quantify elements of customer value, because the information is grouped into one hand. The manager knows the partner well, and is also clearly aware of the value which is difficult to measure in money in the short term, and in addition to this also sees the corresponding sales data, and can make a decision regarding the given partner by comparing these two data.

With the larger companies where these information are not in one hand but are broken down under the particular functions (product development, relationship management, controlling, finance, marketing) very important to have all the values in an integrated system which then need to be taken into account when the decision is made (whether it is a passive order intake or in the case of an active marketing action)

With medium and large companies it is typical that they deal with their biggest company customers with emphasis, and treat them totally separately. In the case of small and medium company customers and individual customers one of the most important motor drives of customer value management is considered to be that with the help of information technology the companies are now capable of collecting a large amount of data. In the data base the purchase details of the customers are there, but the factors, driving forces behind them are not known or only partially known-those are the things which led to the purchase of the product. It is an important question how we can integrate the data collected with the questionnaire into the

complete database.

With the multi-national companies it was mentioned that regarding the acquisition and retention of globally optimal customers, examined from a broader perspective, as regards the local (business units or different classes) its not sure that they provide an optimal solution. The individual level definition of costs may cause a problem. The used models would need a review in the light of the new technologies, and a higher level of knowledge would need to be integrated within the company. It would be worthwhile for example to involve demographical variables and variables related to product use into the models, likewise motives for making the purchase and the effect of marketing actions. The data bases at disposal are not optimally used and customer value is not used directly to support marketing decisions.

The involvement of the soft difficult to quantify factors (innovation, information value, recommendation value etc.) into the model is not even characteristic of the large companies, in case such customer data do exist based on previous research and action, they are not at disposal in a useable manner for to make marketing decisions. The interviewed persons did agree however, that in the future these factors will need to be taken into account if the companies wish to keep their market positions.

On the whole we can deduct the following based on the result of the qualitative research:

- basically companies judge the profitability of the customer through the revenue actualized by the customer
- the product and customer care costs are taken into account only partially,
- regarding the question of customer potential, they are mostly interested in cross selling potential, and have no interest in what profit the consumers would bring the company as a reference or a source of innovation ,
- modelling primarily extends to easily numerable factors and its occasionally used in the market segmentation to support the decision for more significant marketing actions (e.g.: the launch of a new product) ,
- the continuous customer value monitor for the quantification of the result of the marketing actions was not typical among the companies participating in the interviews, the reasons for this were the lack of technical developments for the management of databases and problems in human resources they

concluded,

- from the customer value data they only deduct specific strategies in an ad hoc manner the strategic trait is not widespread with the analysed companies,
- the companies regard the use of customer value management as an important and to be developed area,
- the reliable and long term measurement of the result of marketing activity is thus not yet present in the company practice of the interviewed persons, however its necessity is seen, just like they see the involvement of the soft, behaviour based variables into the customer value measurements as necessary.

## **9.2. The summary of the results of the quantitative research**

### **9.2.1. Explorative factor analysis and variance analysis**

With the use of the multiple item scales for the measurement of the variables, at first we carried out an explorative style, explorative factor analysis. The explorative factor analysis (hereafter referred to as factor analysis) is suitable for the often occurring phenomenon in social sciences according to which more indicators (directly measurable manifest variable) are needed for the description of a particular latent construction (directly non-measurable variable). Factor analysis denotes processes, which's primary aim is the reduction and summary of data.

On the one part the aim of the test was the examination of the adapted scales, and on the other part the creation of such factor values with which's help further analysis can be carried out. From among the methods of factor analysis we have applied main component analysis and Promax rotation. As a result of the factor analysis, in accordance with the advance theoretical concept we managed to create six factors, which are: benevolence based trust, satisfaction, loyalty, credibility based trust, satisfaction, the two dimensions of loyalty and the recommendation potential. With the help of factor analysis we were able to ascertain that the chosen scale really is suitable for the measurement of the latent constructions we wish to measure, and on the other hand we created such a metric index number (average of factor values for the total number of people questioned) which was suitable for the comparison of our latent variables in the sub groups we wished to examine.



After this we carried out variance analysis by using the factor values, with which's help we examined whether the customers who came with recommendation are more satisfied, loyal and do they show bigger trust and recommendation potential than customers acquired with other methods do. We used the values of the six factors created by us to make a one aspect variance analysis (ANOVA) for the purpose of testing hypotheses H2, H3, H5 and H7. The aim of the variance analysis was for us to ascertain whether there is a difference between the nominal group forming variable (method of customer acquisition: recommendation: 1, non-recommendation 0) through the averages of the created groups with regard to the vertical metric variables (satisfaction factor, loyalty factor, recommendation potential factor).

The results have shown that the average was higher in the case of every examined variable (satisfaction, benevolence based trust, active loyalty, passive loyalty, recommendation potential) in the case of customers acquired with recommendation. The differences between the averages were tested with the ANOVA (F-test).

In the case of benevolence based trust, recommendation potential, and active loyalty, the null hypothesis according to which the average of the variables are the same in the case of the two sub groups was not rejectable beside the usual 5% significance level, while in the case of satisfaction and the passive dimension of loyalty we managed to reject the null hypothesis.

**Thus as a result of the test we have concluded that there is a significant difference in the aspect of the satisfaction and passive loyalty variables in the group average of the customers acquired through recommendation and the customers acquired not through recommendation.**

### **9.2.3. Structural Equation Modelling (SEM) and Multi Group Analysis (MGA)**

The aim of the application of structural equation modelling (SEM) was the testing of a model which rests upon a theoretical basis, and in which we measured the latent variables with the help of validated reflective measurement scales.

The SEM model is made up of a measurement model and a structural model. As the first step we have validated the applied scales with the help of confirmatory factor analysis, and ascertained the fit of the measurement model. Next we created the structural model and based on the indices recommended in literature we have

evaluated the fit of the model as acceptable.

We have used two variations of the SEM model to test the hypotheses. By embedding the method of customer acquisition as a dummy variable we examined the direct effect of recommendation on the two dimensions of trust and the recommendation potential, and through it the **mediating** effect of recommendation – as a method of customer acquisition- and between the other examined variables (satisfaction, loyalty, and recommendation potential).

In the other version of the SEM we applied the model to several groups simultaneously (Multi Group Analysis, hereafter referred to MGA) we have examined the **moderating** effect of recommendation on the root-cause relationship between the other variables.

In the table below we have summarized the strength of the effects and their corresponding significance levels in the case of the SEM model pertaining to the entire database, and in the case of the models (MGA) tested on the sub groups.

Latent variable	Effect direction	Latent variable	Entire data base (SEM)		Recommendation (MGA)		Not recommendation (MGA)	
			Std. regr. w.	P	Std. regr. w.	P	Std. regr. w.	P
AQUIS	-->	TRU_CR	0,053	0,445				
AQUIS	-->	TRU_B	-0,048	0,274				
AQUIS	-->	REC	0,008	0,852				
TRU_B	-->	SAT	-0,081	0,545	-0,166	0,277	0,515	0,01
TRU_B	-->	LOY_P	0,351	0,002	0,435	***	0,365	***
TRU_B	-->	LOY_A	0,737	***	0,798	***	0,646	0,011
TRU_CR	--->	TRU_B*	0,861	***	0,800	***	0,882	***
TRU_CR	-->	SAT	0,831	***	0,895	***	0,232	0,241
TRU_CR	-->	LOY_A	-0,901	***	-0,734	0,014	-0,555	0,02
SAT	-->	LOY_A	0,671	***	0,351	0,05	0,425	0,002
SAT	-->	LOY_P*	0,653	***	0,583	***	0,578	***
SAT	-->	REC	0,103	0,431	0,096	0,559	0,122	0,478
LOY_A	-->	REC	-0,054	0,323	0,047	0,508	-0,11	0,162
LOY_P	-->	REC	0,788	***	0,817	***	0,76	***

\* the strength of the effect does not differ along the 5% significance level between the two groups

Table 19. : The strength and significance of the effects on the entire sample and the examined sub groups (self-edited )

Comparing the values of the examined variables with different methods we got the result that the level of passive loyalty and satisfaction is higher in the case of customers acquired with recommendation.

Next by analysing the effects between the variables we examine to what change direction and extent of change does the increase of the level of one variable lead to for the other variable.

From the SEM results it became obvious that the manner of customer acquisition (dummy variable: 0=not recommendation; 1=recommendation) has no significant linear effect on the dimensions of trust and the recommendation potential. The mediating role of trust thus could not be supported between recommendation and the other examined variables.

Benevolence based trust has a significant positive effect based on both the SEM results and in the case of sub groups examined with the help of MGA. The effect is stronger on the active dimension of loyalty (0,646-0,798), as it is on its passive dimension (0,351-0,435).

Based on the MGA the effect is stronger in the case of the customers acquired with recommendation, than in the case of customers who came with non-recommendation.

Thus the customers in whose case the level of benevolence based trust is higher than it is with other customers, and the effect of benevolence based trust is stronger on both dimensions of loyalty in the case of customers who came with recommendation.

The credibility based dimension of trust has a strong negative effect on the active dimension of loyalty based on the results of both SEM and MGA. It became evident from the MGA tests that the effect is stronger in the case of customers acquired by recommendation. Those customers in whose case the credibility based level of trust is higher, would rather desert in the case of a price rise or a better offer from the competition. Thus the strengthening of this dimension of trust weakens active loyalty.

On the whole it can be concluded about the relationship of trust and loyalty, that regarding the active dimension of loyalty, the effect of the two dimension of trust on loyalty differs significantly. The strengthening of benevolence based trust is important in the interest of strengthening loyalty, however, at the high level of credibility trust the desertion of customers can be expected in the case of a price rise

or a better offer from the competition, especially among the circle of customers who came with recommendation. In the background of this may be that this dimension of trust encompasses the effective operation and the corresponding good price value/ratio and high expectations associated in the case of the examined circle of products, therefore in the interest of customer retention before the price rise communication should be made with the existing clientele, as well as the monitoring of the offers of the competition. In the case of the customers who came with recommendation the price policy decisions must be made with even more care, because these customers proved to be still more sensitive in this aspect.

The results also provided valuable information about the effect between trust and satisfaction. The SEM model did not show a significant connection between the benevolence based dimension of trust and satisfaction, however, during the analysis of the two sub groups it turned out that in the case of customers acquired not through recommendation benevolence based trust, whereas in the case of customers acquired through recommendation credibility based trust has a significant positive effect on satisfaction.

Satisfaction has a positive effect on both dimensions of loyalty. The effect of satisfaction on active loyalty is stronger in the case of customers acquired with non-recommendation.

A further interesting result is that in addition that the level of passive loyalty proved to be stronger in the case of customers who came with recommendation, among them the increase of this dimension of loyalty increases the recommendation potential better.

With the help of we could show a significant difference between the two examined groups which supports the moderating effect of recommendation.

#### **9.2.4. Reflection in connection with the theoretical concepts used in the development of the model**

To explain the connection between the method of customer acquisition and the relational constructs to the company we have made use of the social exchange theories, and the cognitive dissonance phenomenon from among the balance theories.

The cause for taking the theory into the research model was indicated by the fact that

in literature we have found several references to its relevance from the aspect of the theme of our research. Based on these, social exchange theory explains the relationship construction's basic mechanisms (Gassenheimer et al., 1998, Houston and Gassenheimer, 1987), in order to understand the paradigmatic shifts which began in the 1990's we have to go back to the basics of human exchange mechanisms, and to understand the paradigmatic changes we have to accept the fundamental tenets of the social exchange theory (Jancic and Zabkar, 2002).

Originally social exchange theory was developed to describe exchanges between persons, which are not merely of economic nature. The essence of the theory is that the behaviour of the individuals in society can be described with the help of various resources. The demand for social exchange occurs because of the meagreness of resources, which compels the parties to get in contact with each other for the obtainance of the valuable resources (Levine and White, 1961). Social exchange originally pertained to exchange between people, and then it was extended to the organisational and intraorganisational level (Aiken and Hage, 1968, Jacobs, 1974, Levine and White, 1961). During the course of social exchange we can speak of emotional and behavioural activity which's result is also a kind of „social” resource, for example friendship loyalty and trust. As a result of this the distance between the customer and the company decreases and the customer becomes the supporter of the company (Fontenot and Wilson, 1997, Dwyer et al., 1987). In return for the invested resource the customer may make a kind of a social demand towards the company. We list the resources into groups according to tangibility, uniqueness, and exchangeability, and we can phrase regularities pertaining to the exchange. Such a regularity is for example that the resources which are closer to each other can be exchanged more often. Adapting the social exchange theory into the customer value concept, in case the company would like to reach an economic investment on the part of the customer, it has to influence the behaviour of the customer with material incentives.

A drawback of these is that they can be easily copied and do not form a long term attachment. As a consequence of social investment a kind of friendship develops between the company and the customer, which withstands a certain degree pressure from the competition (Dorsch and Carlson, 1996). For the economic type of resources invested in the company reciprocation is given by the company with

tangible, non-unique reciprocation (goods, money) whereas social investment is reciprocated with unique reciprocation (love, status) by the company (Foa and Foa, 1980).

According to our assumption in case the customer gets in touch with the company with the help of a social type of exchange (recommendation) this investment of the recommender the participants (recommender and recommended company) in the exchange is reciprocated with the help of a social type of resource towards the parties. As a result of the exchanges made toward the recommended company we assume a higher level of benevolence based trust and its positive effect in the direction of satisfaction, loyalty and recommendation potential.

Based on the research results it can be said that the effect mechanisms used at the development of the model are recognizable, however, the interpretation and adaptation of the theory to the research model has to be reconsidered in the light of the research results. Taking as basis that trust means the social dimension of the exchanges between the organizations (Mandják, 2010), the two dimensions do not differ from each other regarding the accordance with social exchange. The assumption, according to which the benevolence based dimension of trust would "carry on" the social input of recommendation in the interactions between the organizations through the mediating effect of trust, did not gain certainty. Effect mechanisms show that recommendation has a moderating effect and strengthens both dimensions of trust in the various relations.

We were unable to show a difference between the groups on the level of trust either, however the effects of particular dimensions of trust and loyalty were shown and this confirms the moderating effect of recommendation — as a customer acquiring channel — on the traits and behaviours of the clientele. With the analysis of the effects we have come closer to understanding how recommendation exerts its effect. The most important research result in connection with this is that recommendation strengthens the effect of credibility based trust in the direction of satisfaction, and its dimension based on benevolence is strengthened in the direction of loyalty.

Regarding the cumulative effect of recommendation we have found a significant effect through passive loyalty, however, in the aspect of the recommendation potential there was no difference between the groups. Our research did not confirm

the positive effect between satisfaction and the recommendation potential as shown in earlier research. We were only able to show the positive effect of the passive dimension of loyalty on the recommendation potential.

#### **9.2.5. The presentation of results which are important for practice based on the customer value concept**

The wider framework of the model was given by the customer value concept, as the effects for the company can be on this measurement tool. With the help of the calculation of the customer value the effect on the profit of the company can be measured. From the aspect of the profitability of the company it is important to for the valuable clients of the company to remain customers for the long term.

The essence of the customer value concept is that customers can be regarded as the kind of potential investors who consciously put economic or social investments into the company (Dorsch and Carlson, 1996). Social investment is difficult to measure and to identify, therefore this factor is often ignored by companies. This behaviour distorts the estimation of customer value and worsens the company's effectiveness and profitability. The customer-company relationships' characteristics, the exposure of the factors which contribute to the ever more exact description of this relationship is very important from the aspect of the customer's predictability in the future, which happens to constitute the basis of customer value calculation and modelling (Berger and Nasr, 1998).

The contribution of our research to the maximization of the customer value calculation process is made up of the fact that we examine from among the methods of customer acquisition the effect of recommendation on the customer value, in order to determine whether it is worth including the customer acquisition method variable in the customer value calculation model as well.

The result of the research shows that it is worthwhile to take into account the method of customer acquisition variable when calculating the customer value as the customers who came with recommendation showed different traits than the other customers. The customers acquired with recommendation proved to be more satisfied than other customers. As we have shown satisfaction to have a positive effect on both dimension of loyalty, we can say that the customers acquired with recommendation are rather more loyal than the other customers In case in the

customer value calculation the two customers have the same economic value, then the customer who came with recommendation can be regarded as the more valuable customer. The application of the set of tools of marketing can be made more effective by targeting this group.

An important result further is that in the group of the customers acquired with recommendation passive loyalty is higher and this is in a strong significant connection with the recommendation potential. In addition to the fact that the customers who came with recommendation are more loyal in themselves, and therefore they themselves generate more turnover in the long term, and thus also function as customer acquisition channels.

On the whole we can conclude that the method of customer acquisition (recommendation) helps the managers in their decision to define where the resources should be focussed in the interest of more effective use, thus the costs of the company can be reduced and its profit will grow in the long term.



9.2.6. The summary of the results of the hypotheses tests

	<b>Content of hypothesis</b>	<b>Expl. FAC, ANOVA</b>	<b>SEM</b>	<b>SEM/MGA</b>
H1	The way of acquisition has a stronger positive effect on the benevolence based trust than on credibility based trust.		rejected	
H2	By customers acquired through recommendation the level of benevolence based trust is higher than by customers acquired not through recommendation.	rejected		rejected
H3	The way of customer acquisition has a positive effect on the recommendation potential.		rejected	
H4	The recommendation potential is higher by customers acquired through recommendation.	rejected		rejected
H5	Both dimensions of trust have a positive effect on satisfaction.			rejected (dimensions differ)
H5a	Benevolence based trust has a stronger positive effect on satisfaction in the case of customers acquired through recommendation.			rejected
H6	The customers acquired through recommendation are more satisfied.	accepted		accepted
H7	Both dimensions of trust have a positive effect on loyalty.			rejected (dimensions are of contrasting effect )
H7a	The effect of benevolence based trust on loyalty is stronger by customers acquired through recommendation, than by customers acquired not through recommendation.			accepted
H8	The customers acquired through recommendation are more loyal, than the customers acquired not through recommendation.	accepted		accepted
H9	Satisfaction has a positive effect on the recommendation potential.			rejected
H10	Loyalty has a positive effect on the recommendation potential.			accepted (dimensions differ )
H11	Satisfaction has a positive effect on loyalty.			accepted

Table 20: The summary of the result of the hypotheses tests (self-edited)

H1 hypothesis according to which the manner of customer acquisition has a stronger positive effect on the benevolence based dimension of trust than the dimension based on credibility was rejected, because we have found no significant effect between the dimensions of recommendation and trust.

H2 hypothesis according to which the level of benevolence based trust is higher with customers acquired through recommendation than in the case of customers acquired not through recommendation we have rejected, because based on the result of the F-test the likelihood of the primary species fault is very high.

H3 hypothesis according to which the method of customer acquisition has a positive effect on the recommendation potential was also rejected as no significant effect could be shown among the examined variables.

H4 hypothesis according to which the recommendation potential is higher with customers who came with recommendation was rejected.

H5 hypothesis according to which both dimensions of trust have a positive effect on satisfaction we reject, because in the case of benevolence based trust only in the case of customers acquired not through recommendation were we able to show a significant positive effect.

H6 hypothesis according to which the customers acquired with recommendation are more satisfied than customers acquired with other methods we have accepted.

H7 hypothesis according to which both dimensions of trust has a positive effect on loyalty we have rejected because with credibility based trust we were able to show a negative effect on the active dimension of loyalty.

H7 a hypothesis according to which the effect of benevolence based trust is stronger on loyalty in the case of customers acquired with recommendation we accepted.

H8 hypothesis according to which the customers acquired with recommendation are more loyal than customers acquired with other customer acquisition methods we accepted as pertaining to the passive dimension of loyalty.

H9 hypothesis according to which satisfaction has a positive effect on loyalty we have rejected because we were not able to show the significant effect.

H10 hypothesis according to which loyalty has a positive effect on the recommendation potential we have rejected, because only in the case of passive

dimension were we able to show the presumed effect.

Finally we have accepted H11 hypothesis according to which satisfaction has a positive effect on loyalty.

## **10. Limitations and options for further research**

In connection with our empirical research several factors arose which limit the generalizability of the results.

The qualitative research primarily served as preparation for the quantitative phase, the examination of the relevance of the topic, the results show the characteristics of the questioned companies, and are not suitable for the illustration of the customer value management systems of Hungarian companies. In the future it would be worthwhile to carry out further qualitative research, for example, to deeper examine in the framework of case studies the operation of customer value management systems in Hungary. With the more exact exposure of characteristics, the better understanding of processes, the results of the research would be more effectively adaptable for application in practice.

One of the limits of our research is that the sample size is relatively small, though it can be regarded as acceptable in the relation of Hungarian business-to-business research, and the comparison of the characteristics of the sample with nationwide data showed that it illustrates the examined mass well. From the aspect of applied methodology the research would be worthy of repeating on a larger sample, primarily in the interest of the fulfilment of multinormal distribution. Out of this same point of view it would be worth considering to use seven or nine point scales instead of the five point ones, which does make the polling of the questionnaire more difficult, but it does provide with likelihood better quality data.

A limitation of our research is that companies active within the same industry branch (agriculture) with one concrete product (fertilizer) were questioned; this factor too limits the generalizability of the results. The research model would definitely be worthy of testing on other industry branches and products.

In the present research we have examined the effect of recommendation from among the other methods of customer acquisition. In addition to recommendation it would

be worthwhile to examine the connections between the method of customer acquisition and customer characteristics and behaviour in the cases of the other customer acquisition channels as well.

Our research is a cross section research. To have a more precise showing of the effects it would be important to follow not just the intended, but the real behaviour within the frame of a longitudinal examination.

Within the framework of future research it would be worthwhile to consider the involvement of additional variables in the model, such is the role filled within the network or the perceived risk of purpose.

Our most important further aim of research is the calculation of customer value on real company data with the taking into account of the recommendation value. However to actualize this we need access to company data and this makes research work more difficult.

Our research would be made complete, the value of recommendation (manner of customer acquisition) would in practice be embedded in the customer value measurement model, and with its help the segmentation of the customers would be more exact, thus the positioning of the set of tools of marketing would be more effective, and in the long term a more optimal company customer portfolio would be developable.

## 11. Appendix

### 11.1. Tables and Calculations

Characteristics of the Sample

**How many employees has your company?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-20	121	50,8	78,6	78,6
	21-50	24	10,1	15,6	94,2
	51-100	5	2,1	3,2	97,4
	101-500	4	1,7	2,6	100,0
	Total	154	64,7	100,0	
Missing	9,00	84	35,3		
Total		238	100,0		

**How old is your relationship with this company?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1	40	16,8	16,9	16,9
	1-5	87	36,6	36,7	53,6
	6-10	57	23,9	24,1	77,6
	10-	53	22,3	22,4	100,0
	Total	237	99,6	100,0	
Missing	9,00	1	,4		
Total		238	100,0		

**Way of acquirement**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	recommendation	103	43,3	43,3	43,3
	not recommendation	135	56,7	56,7	100,0
	Total	238	100,0	100,0	

Missing value analysis

Univariate Statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes <sup>b</sup>	
				Count	Percent	Low	High
SAT_1	211	4,4550	,76942	27	11,3	5	0
SAT_2	214	4,4907	,76754	24	10,1	5	0
SAT_3	213	4,4460	,76055	25	10,5	4	0
LOY_P_1	236	4,3136	,89156	2	,8	12	0
LOY_P_2	234	4,5171	,84007	4	1,7	10	0
LOY_A_3	216	2,8796	1,15108	22	9,2	0	0
LOY_A_4	236	2,4831	1,19027	2	,8	0	0
LOY_A_5	236	2,7542	1,22691	2	,8	0	0
TRU_CR_1	237	4,6624	,71603	1	,4	.	.
TRU_CR_2	237	4,7764	,58638	1	,4	.	.
TRU_CR_3	234	4,6368	,69986	4	1,7	3	0
TRU_CD_4	232	4,5905	,69038	6	2,5	3	0
TRU_B_1	237	4,5781	,74164	1	,4	5	0
TRU_B_2	232	4,4181	,81767	6	2,5	6	0
TRU_B_3	229	4,3144	,91134	9	3,8	8	0
TRU_B_4	222	3,1036	1,48388	16	6,7	0	0
REC_1	225	4,4622	,77324	13	5,5	5	0
REC_2	204	4,2500	,86603	34	14,3	8	0
REC_3	223	4,0538	1,03835	15	6,3	0	0
AQUIS	238	1,5672	,49650	0	,0	0	0

a. . indicates that the inter-quartile range (IQR) is zero.

b. Number of cases outside the range (Q1 - 1.5\*IQR, Q3 + 1.5\*IQR).

Distribution attributes

	N		Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
	Valid	Missing				
SAT_1	234	0	-1,982	,159	5,667	,317
SAT_2	234	0	-1,987	,159	5,448	,317
SAT_3	234	0	-1,705	,159	3,916	,317
LOY_P_1	234	0	-1,674	,159	3,226	,317
LOY_P_2	234	0	-2,051	,159	4,333	,317
LOY_A_3	234	0	-,095	,159	-,711	,317
LOY_A_4	234	0	,214	,159	-,923	,317
LOY_A_5	234	0	,113	,159	-,896	,317
TRU_CR_1	234	0	-2,625	,159	8,420	,317
TRU_CR_2	234	0	-3,457	,159	15,514	,317
TRU_CR_3	234	0	-2,389	,159	6,938	,317
TRU_CD_4	234	0	-1,924	,159	4,472	,317
TRU_B_1	234	0	-1,976	,159	4,171	,317
TRU_B_2	234	0	-1,534	,159	2,701	,317
TRU_B_3	234	0	-1,260	,159	1,377	,317
TRU_B_4	234	0	-,165	,159	-1,234	,317
REC_1	234	0	-1,696	,159	3,608	,317
REC_2	234	0	-1,256	,159	1,757	,317
REC_3	234	0	-,983	,159	,475	,317

Correlation between model variables (average factor values)

**Correlations**

		AQUIS	TRU_CR	SAT	TRU_B	LOY_A	REC	LOY_P
AQUIS	Pearson Corr.	1	-,014	,147*	,021	,033	,064	,211**
	Sig. (2-tailed)		,835	,025	,754	,617	,332	,001
	N	234	234	234	234	234	234	234
TRU_CR	Pearson Corr.	-,014	1	,648**	,682**	,198**	,546**	,602**
	Sig. (2-tailed)	,835		,000	,000	,002	,000	,000
	N	234	234	234	234	234	234	234
SAT	Pearson Corr.	,147*	,648**	1	,571**	,335**	,580**	,683**
	Sig. (2-tailed)	,025	,000		,000	,000	,000	,000
	N	234	234	234	234	234	234	234
TRU_B	Pearson Corr.	,021	,682**	,571**	1	,328**	,482**	,554**
	Sig. (2-tailed)	,754	,000	,000		,000	,000	,000
	N	234	234	234	234	234	234	234
LOY_A	Pearson Corr.	,033	,198**	,335**	,328**	1	,319**	,387**
	Sig. (2-tailed)	,617	,002	,000	,000		,000	,000
	N	234	234	234	234	234	234	234
REC	Pearson Corr.	,064	,546**	,580**	,482**	,319**	1	,637**
	Sig. (2-tailed)	,332	,000	,000	,000	,000		,000
	N	234	234	234	234	234	234	234
LOY_P	Pearson Corr.	,211**	,602**	,683**	,554**	,387**	,637**	1
	Sig. (2-tailed)	,001	,000	,000	,000	,000	,000	
	N	234	234	234	234	234	234	234

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).



The results of the multivariate linear regression model

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,686 <sup>a</sup>	,471	,457	,73674491	1,874

a. Predictors: (Constant), FAC6\_LOY\_P, AQUIS, FAC6\_LOY\_A, FAC6\_TRU\_B, FAC6\_SAT, FAC6\_TRU\_CR

b. Dependent Variable: FAC6\_REC

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	109,786	6	18,298	33,710	,000 <sup>a</sup>
	Residual	123,214	227	,543		
	Total	233,000	233			

a. Predictors: (Constant), FAC6\_LOY\_P, AQUIS, FAC6\_LOY\_A, FAC6\_TRU\_B, FAC6\_SAT, FAC6\_TRU\_CR

b. Dependent Variable: FAC6\_REC

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,038	,065		,577	,565
	AQUIS	-,087	,102	-,043	-,852	,395
	FAC6_TRU_CR	,163	,077	,163	2,130	<b>,034</b>
	FAC6_SAT	,176	,074	,176	2,390	<b>,018</b>
	FAC6_TRU_B	,038	,070	,038	,541	,589
	FAC6_LOY_A	,070	,054	,070	1,299	,195
	FAC6_LOY_P	,380	,073	,380	5,173	<b>,000</b>

a. Dependent Variable: FAC6\_REC

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-3,8692696	,7618257	,0000000	,68642876	234
Residual	-2,57078910	2,60260201	,00000000	,72719706	234
Std. Predicted Value	-5,637	1,110	,000	1,000	234
Std. Residual	-3,489	3,533	,000	,987	234

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-3,8692696	,7618257	,0000000	,68642876	234
Residual	-2,57078910	2,60260201	,00000000	,72719706	234
Std. Predicted Value	-5,637	1,110	,000	1,000	234
Std. Residual	-3,489	3,533	,000	,987	234

a. Dependent Variable: FAC6\_REC

Factoranalysis/ Communalities

	Initial	Extraction
SAT_1	1,000	,885
SAT_2	1,000	,882
SAT_3	1,000	,806
LOY_P_1	1,000	,900
LOY_P_2	1,000	,798
LOY_A_3	1,000	,764
LOY_A_4	1,000	,867
LOY_A_5	1,000	,784
TRU_CR_1	1,000	,840
TRU_CR_2	1,000	,825
TRU_CR_3	1,000	,792
TRU_CD_4	1,000	,730
TRU_B_1	1,000	,719
TRU_B_2	1,000	,860
TRU_B_3	1,000	,838
REC_1	1,000	,806
REC_2	1,000	,847
REC_3	1,000	,861

Extraction Method: Principal Component Analysis.

Factoranalysis/ Explained Variance

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadingsa
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
	1	9,385	52,137	52,137	9,385	52,137	52,137
2	2,075	11,530	63,668	2,075	11,530	63,668	7,004
3	1,268	7,043	70,710	1,268	7,043	70,710	6,595
4	,906	5,032	75,743	,906	5,032	75,743	3,696
5	,649	3,606	79,349	,649	3,606	79,349	5,822
6	,520	2,890	82,239	,520	2,890	82,239	6,514
7	,457	2,539	84,778				
8	,428	2,380	87,157				
9	,350	1,947	89,104				
10	,336	1,867	90,972				
11	,286	1,591	92,562				
12	,275	1,526	94,088				
13	,235	1,305	95,393				
14	,215	1,192	96,586				
15	,181	1,004	97,590				
16	,173	,959	98,549				
17	,149	,829	99,377				
18	,112	,623	100,000				

Normality test in SPSS

**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SAT_1	,287	219	,000	,626	219	,000
SAT_2	,321	219	,000	,617	219	,000
SAT_3	,298	219	,000	,646	219	,000
LOY_P_1	,277	219	,000	,710	219	,000
LOY_P_2	,362	219	,000	,616	219	,000
LOY_3	,193	219	,000	,926	219	,000
LOY_4	,180	219	,000	,900	219	,000
LOY_5	,163	219	,000	,921	219	,000
TRU_CR_1	,428	219	,000	,538	219	,000
TRU_CR_2	,465	219	,000	,428	219	,000
TRU_CR_3	,404	219	,000	,554	219	,000
TRU_CD_4	,362	219	,000	,577	219	,000
TRU_B_1	,402	219	,000	,615	219	,000
TRU_B_2	,292	219	,000	,672	219	,000
TRU_B_3	,274	219	,000	,715	219	,000
TRU_B_4	,149	219	,000	,900	219	,000
REC_1	,349	219	,000	,718	219	,000
REC_2	,311	219	,000	,771	219	,000
REC_3	,267	219	,000	,828	219	,000
AQUIS	,361	219	,000	,634	219	,000

a. Lilliefors Significance Correction

Normality test in AMOS

Variable	min	max	skew	c.r.	kurtosis	c.r.
TRU_B_1	1,000	5,000	-1,964	-12,262	4,057	12,667
REC_1	1,000	5,000	-1,685	-10,522	3,506	10,946
REC_2	1,000	5,069	-1,248	-7,794	1,694	5,289
REC_3	1,000	5,000	-,977	-6,102	,439	1,372
LOY_A_1	,926	5,000	-,095	-,591	-,721	-2,253
LOY_A_2	1,000	5,000	,213	1,327	-,929	-2,899
LOY_A_3	1,000	5,000	,112	,701	-,903	-2,818
LOY_P_1	1,000	5,000	-1,664	-10,389	3,132	9,781
LOY_P_2	1,000	5,000	-2,038	-12,725	4,215	13,162
SAT_1	1,000	5,000	-1,969	-12,295	5,521	17,240
SAT_2	1,000	5,000	-1,975	-12,332	5,307	16,570
SAT_3	1,000	5,021	-1,694	-10,582	3,807	11,888
TRU_CR_1	1,000	5,000	-2,608	-16,290	8,215	25,653
TRU_CR_2	1,000	5,000	-3,435	-21,450	15,159	47,333
TRU_CR_3	1,000	5,046	-2,374	-14,823	6,765	21,123
TRU_CR_4	1,000	5,000	-1,912	-11,940	4,352	13,588
TRU_B_2	1,000	5,000	-1,524	-9,520	2,618	8,176
TRU_B_3	1,000	5,000	-1,252	-7,816	1,322	4,129
Multivariate					180,242	51,377

Analysis of outliers with Mahalanobis Distance

Observation number	Mahalanobis d-squared	p1	p2
161	148,171	,000	,000
84	95,516	,000	,000
227	87,592	,000	,000
166	74,848	,000	,000
206	65,067	,000	,000
223	53,132	,000	,000
127	52,674	,000	,000
98	48,710	,000	,000
51	47,199	,000	,000
140	47,116	,000	,000
8	46,735	,000	,000
....			

## Cross Validity Analysis with AMOS

### Implied (for all variables) Correlations

	TRU_B	TRU_CR	SAT	LOY_P	LOY_A	REC
REC_1	0,575	0,577	0,637	0,709	0,315	0,855
REC_2	0,615	0,617	0,681	0,758	0,337	0,915
REC_3	0,476	0,478	0,527	0,587	0,261	0,708
TRU_B_1	0,803	0,681	0,512	0,564	0,341	0,54
TRU_B_2	0,88	0,747	0,562	0,618	0,374	0,592
TRU_B_3	0,862	0,732	0,55	0,606	0,366	0,58
TRU_CR_1	0,67	0,79	0,563	0,579	0,211	0,533
TRU_CR_2	0,659	0,776	0,553	0,569	0,207	0,524
TRU_CR_3	0,768	0,905	0,644	0,663	0,241	0,611
TRU_CR_4	0,693	0,817	0,582	0,599	0,218	0,552
SAT_1	0,581	0,648	0,91	0,753	0,349	0,678
SAT_2	0,592	0,661	0,928	0,768	0,356	0,691
SAT_3	0,53	0,591	0,831	0,687	0,319	0,619
LOY_P_1	0,575	0,6	0,677	0,818	0,442	0,679
LOY_P_2	0,605	0,631	0,712	0,861	0,465	0,714
LOY_A_1	0,323	0,203	0,292	0,411	0,76	0,28
LOY_A_2	0,385	0,242	0,349	0,491	0,908	0,335
LOY_A_3	0,354	0,222	0,32	0,451	0,834	0,307

MGA/ Invariance test values of the structural model in different models

Nested Model Comparisons

Assuming model Measurement intercepts to be correct:

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Structural weights	11	18,262	,076	,005	,005	-,001	-,001
Structural intercepts	17	31,533	,017	,008	,009	-,001	-,001
Structural residuals	23	40,414	,014	,011	,011	-,002	-,002
Measurement residuals	41	160,775	,000	,042	,045	,019	,021

Assuming model Structural weights to be correct:

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Structural intercepts	6	13,271	,039	,003	,004	,000	,000
Structural residuals	12	22,152	,036	,006	,006	-,001	-,001
Measurement residuals	30	142,512	,000	,037	,040	,020	,022

Assuming model Structural intercepts to be correct:

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Structural residuals	6	8,881	,180	,002	,003	-,001	-,001
Measurement residuals	24	129,241	,000	,034	,037	,020	,022

Assuming model Structural residuals to be correct:

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Measurement residuals	18	120,361	,000	,031	,034	,021	,023

MGA/ Average Difference of Factor Values between the two Groups

Intercepts: (A - Measurement intercepts)

	Estimate	S.E.	C.R.	P (*≤0,001)
<b>LOY_P</b>	<b>0,182</b>	<b>0,067</b>	<b>2,716</b>	<b>0,007</b>
<b>SAT</b>	<b>0,14</b>	<b>0,068</b>	<b>2,046</b>	<b>0,041</b>
REC	-0,089	0,07	-1,27	0,204
TRU_B	-0,038	0,054	-0,7	0,484
TRU_CR	0,031	0,076	0,409	0,683
LOY_A	0,046	0,114	0,407	0,684
TRU_B_1	4,611	0,058	79,424	***
TRU_B_2	4,441	0,067	65,943	***
TRU_B_3	4,364	0,07	61,952	***
TRU_CR_1	4,672	0,056	83,879	***
TRU_CR_2	4,787	0,044	108,313	***
TRU_CR_3	4,637	0,06	77,208	***
TRU_CR_4	4,588	0,056	82,183	***
LOY_P_1	4,209	0,079	53,065	***
LOY_P_2	4,44	0,071	62,384	***
LOY_A_1	2,88	0,092	31,395	***
LOY_A_2	2,442	0,103	23,615	***
LOY_A_3	2,711	0,102	26,641	***
SAT_1	4,415	0,063	69,835	***
SAT_2	4,435	0,063	70,41	***
SAT_3	4,404	0,062	71,565	***
REC_1	4,398	0,064	68,405	***
REC_2	4,202	0,072	58,237	***
REC_3	3,986	0,081	49,243	***



MGA/ Effects by customers acquired through recommendation

Regression Weights: (A - Measurement intercepts)

			Estimate	S.E.	C.R.	P (*≤0,001)
TRU_B	<---	TRU_CR	0,845	0,099	8,494	***
SAT	<---	TRU_B	-0,182	0,168	-1,088	0,277
SAT	<---	TRU_CR	1,039	0,182	5,707	***
LOY_P	<---	TRU_B	0,473	0,105	4,515	***
LOY_A	<---	TRU_B	1,155	0,336	3,436	***
LOY_A	<---	TRU_CR	-1,123	0,455	-2,467	0,014
LOY_A	<---	SAT	0,463	0,236	1,957	0,05
LOY_P	<---	SAT	0,577	0,093	6,232	***
REC	<---	SAT	0,096	0,164	0,584	0,559
REC	<---	LOY_A	0,035	0,054	0,662	0,508
REC	<---	LOY_P	0,822	0,19	4,335	***
TRU_B_1	<---	TRU_B	1			
TRU_B_3	<---	TRU_B	1,233	0,08	15,321	***
TRU_CR_1	<---	TRU_CR	1			
TRU_CR_2	<---	TRU_CR	0,783	0,054	14,585	***
TRU_CR_3	<---	TRU_CR	1,116	0,067	16,784	***
TRU_CR_4	<---	TRU_CR	0,975	0,068	14,323	***
LOY_P_1	<---	LOY_P	1			
LOY_P_2	<---	LOY_P	0,938	0,063	14,796	***
LOY_A_1	<---	LOY_A	1			
LOY_A_2	<---	LOY_A	1,261	0,091	13,823	***
LOY_A_3	<---	LOY_A	1,211	0,09	13,46	***
SAT_1	<---	SAT	1			
SAT_2	<---	SAT	1,005	0,033	30,792	***
SAT_3	<---	SAT	0,926	0,049	19,069	***
REC_1	<---	REC	1			
REC_2	<---	REC	1,167	0,066	17,641	***
REC_3	<---	REC	1,115	0,091	12,268	***
TRU_B_2	<---	TRU_B	1,192	0,075	15,801	***

MGA/ Effects by customers acquired not through recommendation

Regression Weights: (NA - Measurement intercepts)

			Estimate	S.E.	C.R.	P (*≤0,001)
TRU_B	<---	TRU_CR	0,917	0,081	11,295	***
SAT	<---	TRU_B	0,592	0,23	2,573	0,01
SAT	<---	TRU_CR	0,278	0,237	1,172	0,241
LOY_P	<---	TRU_B	0,488	0,131	3,732	***
LOY_A	<---	TRU_B	0,97	0,383	2,533	0,011
LOY_A	<---	TRU_CR	-0,866	0,373	-2,32	0,02
LOY_A	<---	SAT	0,555	0,178	3,122	0,002
LOY_P	<---	SAT	0,672	0,118	5,688	***
REC	<---	SAT	0,119	0,168	0,71	0,478
REC	<---	LOY_A	-0,082	0,059	-1,398	0,162
REC	<---	LOY_P	0,639	0,149	4,293	***
TRU_B_1	<---	TRU_B	1			
TRU_B_3	<---	TRU_B	1,233	0,08	15,321	***
TRU_CR_1	<---	TRU_CR	1			
TRU_CR_2	<---	TRU_CR	0,783	0,054	14,585	***
TRU_CR_3	<---	TRU_CR	1,116	0,067	16,784	***
TRU_CR_4	<---	TRU_CR	0,975	0,068	14,323	***
LOY_P_1	<---	LOY_P	1			
LOY_P_2	<---	LOY_P	0,938	0,063	14,796	***
LOY_A_1	<---	LOY_A	1			
LOY_A_2	<---	LOY_A	1,261	0,091	13,823	***
LOY_A_3	<---	LOY_A	1,211	0,09	13,46	***
SAT_1	<---	SAT	1			
SAT_2	<---	SAT	1,005	0,033	30,792	***
SAT_3	<---	SAT	0,926	0,049	19,069	***
REC_1	<---	REC	1			
REC_2	<---	REC	1,167	0,066	17,641	***
REC_3	<---	REC	1,115	0,091	12,268	***
TRU_B_2	<---	TRU_B	1,192	0,075	15,801	***

## 11.2. Publications on the dissertation topic

Type of Publication	Publication	Year
Journal article	Az ügyfélszerzési csatorna hatásának vizsgálata a vevőelégedettségre és lojalításra szervezetközi piacon Vezetéstudomány / Budapest Management Review (megjelenés várhatóan 2012 második félév)	2012 (in press)
	The Importance of Acquisition Channel by Customer Segmentation - A quantitative research approach Corvinus Marketing Tanulmányok <a href="http://portal.uni-corvinus.hu/index.php?id=47115#12">http://portal.uni-corvinus.hu/index.php?id=47115#12</a> (megjelenés várhatóan 2012 április)	2012 (in press)
	Contribution of Hungarian researchers to the IMP philosophy: summary of the papers written by Hungarian authors or co-authors for the annual IMP Conferences between 1996-2009 IMP Journal, ISSN 0809-7259 (megjelenés várhatóan 2012 szeptember-október) Társszerzők: Zsuzsanna Szalkai, Barbara Jenés, Mária Magyar, Tímea Tóth	2012 (inpress)
	To Solve the Impossible, From Necessity to Success with the Help of Business Network IMP Journal, Issue 3, Volume 5, p. 212-225. ISSN 0809-7259 Társszerzők: Mandják Tibor, Simon Judit, Bárdos Krisztina, Németh Sarolta	2011
	Consumer behaviour on market of the Hungarian travel services -- Examination of hybrid consumption Vezetéstudomány / Budapest Management Review, Jun 2010, Vol. 41 Issue 6, p. 50-62 Társszerzők: Neulinger Ágnes; Simon Judit; Kelemen Kata; Hofmeister Tóth Ágnes;	2010
Hungarian Conference Publications	Hatékonyabb vevőérték menedzsment-környezettudatosabb marketing? A vevőérték menedzsment hatása a marketing eszközök alkalmazására (terjedelem 22 oldal) Marketing Oktatók Konferenciája 2011 Társszerző: Simon Judit	2011
	A vevőérték (customer equity) koncepció jelentősége a marketing fejlődésében (terjedelem 25 oldal) Marketing Oktatók Klubjának Konferenciája, 2008 Társszerző: Simon Judit	2008
	A vevőérték koncepció jelentősége a marketing fejlődésében, a szájreklám szerepe a vevőérték modellezésben (terjedelem 16 oldal) "60 éves a Közgáz" Tudományos Jubileumi Konferencia Budapesti Corvinus Egyetem Társszerző: Simon Judit	2008
International Conference Publications	The Role of Word of Mouth Communication in Customer Equity Management (terjedelem 15 oldal) IMP Doctoral Consortium, 2009, Marseilles	2009
	The Role of Word of Mouth Communication in Customer Equity Management (terjedelem 18 oldal) Marketing Theory Challenges in Transitional Societies, Zagreb, 2008 Társszerző: Simon Judit	2008
Book, part of a book (in Hungarian)	A marketingkutatás alapjai, 6-8. fejezet 121-161.o. Aula Kiadó, Budapest, 2011 Társszerzők: Dr. Simon Judit, Dr. Szűcs Krisztián	2011
Research studies	Kvalitatív és kvantitatív kutatás a sport és szabadidős termékek vásárlási és használati szokásaival kapcsolatban	2010

	(terjedelem kb.60 oldal) Kutatási prezentáció Kutatásvezető: Simon Judit	
	A fogyasztói elégedettség, lojalitás és az ügyfélmegtartás modelljének kidolgozása és alkalmazása a villamos energia fogyasztói piacán (terjedelem 147 oldal) Kutatási tanulmány Kutatásvezetők: Simon Judit és Hofmeister Tóth Ágnes Kutatás társrészvevői: Jenes Barbara, Malota Erzsébet, Kovács István, Farkas Dániel	2007

## 12. Literature review

- AAKER, D. A. 1995. Building strong brands. *Brandweek*, 36, 28.
- ABDUL-MUHMIN, A. G. 2005. Instrumental and interpersonal determinants of relationship satisfaction and commitment in industrial markets. *Journal of Business Research*, 58, 619-628.
- AIKEN, M. & HAGE, J. 1968. Organizational interdependence and intra organizational structure. . *American Sociological Review*, 33, 912-930.
- ALGESHEIMER, R. & WANGENHEIM, F. V. 2006. A Network Based Approach to Customer Equity Management. *Journal of Relationship Marketing*, 5, 39-57.
- AMBLER, T., BHATTACHARYA, C. B., EDELL, J., KELLER, K. L., LEMON, K. N. & MITTAL, V. 2002. Relating Brand and Customer Perspectives on Marketing Management. *Journal of Service Research*, 5, 13.
- ANDALEEB, S. S. 1992. The Trust Concept: Research Issues for Channels of Distribution. *Research in Marketing*, 11, 1.
- ANDALEEB, S. S. & INGENE, C. 1996. An Experimental Investigation of Satisfaction and Commitment in Marketing Channels: The Role of Trust and Dependence. *Journal of Retailing*, 72, 77-93.
- ANDERSON, E. W. 1998a. Customer Satisfaction and Word-of-Mouth.
- ANDERSON, E. W. 1998b. Customer Satisfaction and Word of Mouth. *Journal of Service research*, 1.
- ANDERSON, E. W., CLAES, F. & ROLAND, T. R. 1997. Customer Satisfaction, Productivity, and Profitability: Differences Between Goods and Services.
- ANDERSON, E. W., FORNELL, C. & LEHMANN, D. R. 1994a. Customer Satisfaction, Market Share, and Profitability: Findings From Sweden. *Journal of Marketing*, 58, 53.
- ANDERSON, E. W., FORNELL, C. & MAZVANCHERYL, S. K. 2004. Customer Satisfaction and Shareholder Value. *Journal of Marketing*, 68, 172-185.
- ANDERSON, J. C., HÅKANSSON, H. & JOHANSON, J. 1994b. Dyadic business relationships within a business network context. *Journal of Marketing*, 58, 1.
- ANDERSON, J. C. & NARUS, J. A. 1984. A Model of the Distributor's Perspective of Distributor-Manufacturer Working Relationships. *Journal of Marketing*, 48, 62-74.
- ANDERSON, J. C. & NARUS, J. A. 1990. A Model of Distributor Firm and Manufacturer Firm Working Partnerships. *Journal of Marketing*, 54, 42-58.
- ANDERSON, J. C. & NARUS, J. A. 1998. Business Marketing: Understand What Customers Value. *Harvard Business Review*, 76, 53-65.
- ARMELINI, G. & VILLANUEVA, J. 2010. Chapter 2: Word of Mouth versus Advertising. Now Publishers.
- ARNDT, J. 1967. Role of product-related conversation in the diffusion of a new product.
- BACKHAUS, K., ERICHSON, B., PLINKE, W. & WEIBER, R. 2005. *Multivariate Analysemethoden - Eine anwendungsorientierte Einführung*, Berlin, Heidelberg, Springer.
- BACKHAUS, K., ERICHSON, B. & WEIBER, R. 2011. *Fortgeschrittene Multivariate Analysemethoden*, Berlin-Heidelberg, Springer.
- BAGOZZI, R. P. 1975. Marketing as Exchange. *Journal of Marketing*, 39, 32-39.

- BAGOZZI, R. P. 1981. Evaluation Structural Equation Models with Unobservable Variables and Measurement Error: A Comment. *Journal of Marketing Research (JMR)*, 18, 375-381.
- BAKER, M. J. 2009. Total Relationship Marketing. *Journal of Customer Behaviour*, 8, 293-297.
- BANDYOPADHYAY, S. & MARTELL, M. 2007. Does attitudinal loyalty influence behavioral loyalty? A theoretical and empirical study. *Journal of Retailing & Consumer Services*, 14, 35-44.
- BANNOCK, G., BAXTER, R. E. & DAVIS, E. 2003. Penguin Dictionary of Economics. London: Penguin.
- BASS, F. M. 1969. A new Product Growth for Model Customer Durables. *Management Science*, 15, 215-227.
- BASS, F. M. 2004. A New Product Growth for Model Consumer Durables. *Management Science*, 50, 1825-1832.
- BELL, D., DEIGHTON, J., REINARTZ, W. J., RUST, R. T. & SWARTZ, G. 2002. Seven Barriers to Customer Equity Management. *Journal of Service Research*, 5, 77.
- BENDAPUDI, N. & BERRY, L. L. 1997. Customer's Motivations for Maintaining Relationships with Service Providers. *Journal of Retailing*, 73, 15-37.
- BENNETT, R., HÄRTEL, C. E. J. & MCCOLL-KENNEDY, J. R. 2005. Experience as a moderator of involvement and satisfaction on brand loyalty in a business-to-business setting 02-314R. *Industrial Marketing Management*, 34, 97-107.
- BENTLER, P. M. 1990. Comparative fit indexes in structural models. *Psychological bulletin*, 107, 238-246.
- BENTLER, P. M. & CHOU, C.-P. 1987. Practical Issues in Structural Modeling. *Sociological Methods and Research*, 16.
- BERGER, P. D., BOLTON, R. N., BOWMAN, D., BRIGGS, E., KUMAR, V., PARASURAMAN, A. & TERRY, C. 2002. Marketing Actions and the Value of Customer Assets: A Framework for Customer Asset Management. *Journal of Service Research*, 5, 39.
- BERGER, P. D., ECHAMBADI, N., GEORGE, M., LEHMANN, D. R., RIZLEY, R. & VENKATESAN, R. 2006. From Customer Lifetime Value to Shareholder Value: Theory, Empirical Evidence, and Issues for Future Research. *Journal of Service Research*, 9, 156-167.
- BERGER, P. D. & NASR, N. I. 1998. Customer Lifetime Value: Marketing Models and Applications.
- BERRY, L. L. 1995. Relationship Marketing of Services--Growing Interest, Emerging Perspectives. *Journal of the Academy of Marketing Science*, 23, 236-245.
- BIALASZEWSKI, D. & GIALLOURAKIS, M. 1985. Perceived Communication Skills and Resultant Trust Perceptions Within the Channel of Distribution. *Journal of the Academy of Marketing Science*, 13, 206.
- BLATTBERG, R. C. 1987. Research Opportunities in Direct Marketing. *Journal of Direct Marketing*, 1, 7-14.
- BLATTBERG, R. C. & DEIGHTON, J. 1996. Manage Marketing by the Customer Equity Test. *Harvard Business Review*, 74, 136-144.
- BLATTBERG, R. C., GETZ, G. & THOMAS, J. S. 2001a. Customer Equity: Building and Managing Relationships as Valuable Assets (Hardcover).
- BLATTBERG, R. C., GETZ, G., THOMAS, J. S. & LANDRY, J. T. 2001b. Customer Equity (Book Review). *Harvard Business Review*, 79, 136-136.

- BLAU, P. M. 1964. *Exchange and Power in social life*, New York, Wiley.
- BLOEMER, J. M. M. & KASPER, H. D. P. 1995. The complex relationship between consumer satisfaction and brand loyalty. *Journal of Economic Psychology*, 16, 311.
- BOLTON, R. N. 1998. A Dynamic Model of the Duration of the Customer's Relationship With a Continuous Service Provider: The Role of Satisfaction. *Marketing Science*, 17, 45.
- BOLTON, R. N. & DREW, J. H. 1991. A multistage model of customers' assessments of service quality and value.
- BOLTON, R. N., LEMON, K. N. & VERHOEF, P. C. 2004. The Theoretical Underpinnings of Customer Asset Management.
- BOWMAN, C. & AMBROSINI, V. 2000. Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy. *British Journal of Management*, 11, 1-15.
- BRIGGS, E. & GRISAFFE, D. 2010. Service Performance-Loyalty Intentions Link in a Business-to-Business Context: The Role of Relational Exchange Outcomes and Customer Characteristics. *Journal of Service Research*, 13, 37-51.
- BRODIE, R., J., GLYNN, M., S. & VAN DURME, J. 2002. Towards a theory of marketplace equity: integrating branding and relationship thinking with financial thinking. *Marketing Theory*, 2, 5-28.
- BUNDUCHI, R. 2008. Trust, power and transaction costs in B2B exchanges — A socio-economic approach. 37, 610-622.
- BUTTLE, F. 1996. SERVQUAL: Review, critique, research agenda. *European Journal of Marketing*, 30, 8.
- BUTTLE, F. A. 1998. Word of mouth: understanding and managing referral marketing. *Journal of Strategic Marketing*, 6, 241-254.
- BUZZELL, R. G. & GALE, B. T. (eds.) 1987. *The PIMS Principles*.
- BYRNE, B. M. 2001. *Structural equation modeling with Amos: Basic concepts, applications and programming*, London, Lawrence Erlbaum Associates.
- CALLARISA FIOLE, L. J., BIGNE ALCANIZ, E., MOLINER TENA, M. A. & GARCIA, J. S. 2009. Customer Loyalty in Clusters: Perceived Value and Satisfaction as Antecedents. *Journal of Business-to-Business Marketing*, 16, 276-316.
- CARTER, R. L. 2006. Solutions for Missing Data in Structural Equation Modeling. *Research & Practice in Assessment*, 1.
- CASTAÑEDA, J. 2011. Relationship Between Customer Satisfaction and Loyalty on the Internet. *Journal of Business & Psychology*, 26, 371-383.
- ČATER, B. & ČATER, T. 2009. Relationship-value-based antecedents of customer satisfaction and loyalty in manufacturing. *Journal of Business & Industrial Marketing*, 24, 585-597.
- CHANDRASHEKARAN, M., ROTTE, K., TAX, S. S. & GREWAL, R. 2007. Satisfaction Strength and Customer Loyalty. *Journal of Marketing Research (JMR)*, 44, 153-163.
- CHIAO, Y.-C., CHIU, Y.-K. & GUAN, J.-L. 2008. Does the length of a customer-provider relationship really matter? *Service Industries Journal*, 28, 649-667.
- CHRISTOPHER, M. 1996. From Brand Values to Customer Values. *Journal of Marketing Practice: Applied Marketing Science*, 2, 55-66.

- CHURCHILL JR, G. A. & SURPRENANT, C. 1982. An Investigation Into the Determinants of Customer Satisfaction. *Journal of Marketing Research (JMR)*, 19, 491-504.
- CLELAND, A. S. & BRUNO, A. V. 1997. Balancing Customer and Shareholder Value. *Financial Executive*, 13, 16-17.
- COLWELL, S., HOGARTH-SCOTT, S., DEPEND, J. & JOSHI, A. 2009. Effects of organizational and serviceperson orientation on customer loyalty. *Management Decision*, 47, 1489-1513.
- COOK, K. S. 1977. Exchange and Power in networks of interorganizational relations. *Sociological Quarterly*, 18, 62-82.
- COOKE, A. D. J., MEYVIS, T. & SCHWARTZ, A. 2001. Avoiding Future Regret in Purchase-Timing Decisions. *Journal of Consumer Research*, 27, 447-459.
- CORNELSEN, J. & DILLER, H. 1998. References within the context of customer valuation in Halinen Kaila, A. and Nummera, N. (Eds.): Interaction, Relationships and Networks: Vision for the Future, . *14th IMP Conference*. Turku.
- CRONBACH, L. 1955. Processes affecting scores on "understanding of others" and "assumed similarity.
- CRONIN JR, J. J., BRADY, M. K. & HULT, G. T. M. 2000. Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76, 193.
- CROPANZANO, R., PREHAR, C. A. & CHEN, P. Y. 2002. Using Social Exchange Theory to Distinguish Procedural From Interactional Justice. *Group & Organization Management*, 27, 324.
- CROWN, W. H. 2010. There's a Reason They Call Them Dummy Variables. *PharmacoEconomics*, 28, 947-955.
- CSUTORA, M. & KERÉKES, S. 2004. *A környezetbarát vállalatirányítás eszközei*, Budapest, KJK-Kerszöv.
- D'ASTOUS, A., BENSOUA, I. & GUINDON, J. 1989. A Re-Examination of Consumer Decision Making for a Repeat Purchase Product: Variations in Product Importance and Purchase Frequency. *Advances in Consumer Research*, 16, 433-438.
- DANAHER, P. J. & RUST, R. T. 1996. Determining the optimal return on investment for an advertising campaign. *European Journal of Operational Research*, 95, 511-521.
- DAS, T. K. & TENG, B.-S. 1998. Between Trust and Control: Developing Confidence in Partner Cooperation in Alliances. *Academy of Management Review*, 23, 491-512.
- DAS, T. K. & TENG, B.-S. 2002. Alliance Constellations: A Social Exchange Perspective. *Academy of Management Review*, 27, 445-456.
- DEVINNEY, T. M. & STEWART, D. W. 1988. Rethinking the Product Portfolio: A generalized Investment Model *Management Science*, 34, 1080-1095.
- DICK, A. S. & BASU, K. 1994. Customer Loyalty: Toward an Integrated Conceptual Framework. *Journal of the Academy of Marketing Science*, 22, 99-113.
- DONEY, P. M., BARRY, J. M. & ABRATT, R. 2007. Trust determinants and outcomes in global B2B services. *European Journal of Marketing*, 41, 1096-1116.
- DONEY, P. M. & CANNON, J. P. 1997. An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61, 35.



- DORSCH, M. J. & CARLSON, L. 1996. A Transaction Approach to Understanding and Managing Customer Equity. *Journal of Business Research*, 35, 253-264.
- DOWLING, G. R. & UNCLES, M. 1997. Do Customer Loyalty Programs Really Work? *Sloan Management Review*, 38, 71-82.
- DOYLE, P. 2000a. Value-based marketing. *Journal of Strategic Marketing*, 8, 299-311.
- DOYLE, P. 2000b. Valuing Marketing's Contribution. *European Management Journal*, 18, 233.
- DOYLE, P., WOODSIDE, A. & MICHELL, P. 1979. Organizations Buying in New Task and Rebuy Situations. *Industrial Marketing Management*, 8, 7-11.
- DRUCKER, P. F. 1958. Marketing and Economic Development. *Journal of Marketing*, 22, 252-259.
- DWYER, F. R. 1987. Direct Marketing in the Quest for Competitive Advantage. *Journal of Direct Marketing*, 1, 15-22.
- DWYER, F. R. 1997. Customer lifetime valuation to support marketing decision making. *Journal of Direct Marketing*, 11, 6-13.
- DWYER, F. R., SCHURR, P. H. & OH, S. 1987. Developing Buyer-Seller Relationships. *Journal of Marketing*, 51, 11-27.
- EDVARDSSON, B., JOHNSON, M. D., GUSTAFSSON, A. & STRANDVIK, T. 2000. The effects of satisfaction and loyalty on profits and growth: products versus services. *Total Quality Management*, 11, S918.
- EGGERT, A., ULAGA, W. & SCHULTZ, F. 2006. Value creation in the relationship life cycle: A quasi-longitudinal analysis. *Industrial Marketing Management*, 35, 20-27.
- EHRENBERG, A. S. C. & GOODHARDT, G. J. 1979. The Swiching Constant INFORMS: Institute for Operations Research.
- EHRHARDT, K., MILLER, J. S., FREEMAN, S. J. & HOM, P. W. 2011. An examination of the relationship between training comprehensiveness and organizational commitment: Further exploration of training perceptions and employee attitudes. *Human Resource Development Quarterly*, 22, 459-489.
- ELLIOTT, K. M., MENG, J. & HALL, M. C. 2008. Technology Readiness and the Likelihood to use self--service Technology: Chinese vs. American Customers *Marketing Management Journal*, 18, 20-31.
- ELSTAD, E., CHRISTOPHERSEN, K. A. & TURMO, A. 2011. Social exchange theory as an explanation of organizational citizenship behaviour among teachers. *International Journal of Leadership in Education*, 14, 405-421.
- EMERSON, R. M. 1976. Social exchange theory. *American Review of Sociology*, 2, 335-362.
- FADER, P. S., HARDIE, B. G. S. & KA LOK, L. 2005. RFM and CLV: Using Iso-Value Curves for Customer Base Analysis. *Journal of Marketing Research (JMR)*, 42, 415-430.
- FELLMAN, M. W. 1999. Report on ROI. *Marketing News*, April 12.
- FINNE, Å. & GRÖNROOS, C. 2009. Rethinking marketing communication: From integrated marketing communication to relationship communication. *Journal of Marketing Communications*, 15, 179-195.
- FLINT, D. J., BLOCKER, C. P. & BOUTIN, P. J. 2011. Customer value anticipation, customer satisfaction and loyalty: An empirical examination. *Industrial Marketing Management*, 40, 219-230.

- FOA, E. & FOA, U. 1980. Social exchange: Advances in theory and research *In: PRESS, N. Y. P. (ed.) 103-376-860 (Last edited on 2002/05/04 10:34:36 GMT-6) New York: Plenum Press. ed.*
- FONTENOT, R. J. & WILSON, E. J. 1997. Relational Exchange: A Review of Selected Models for Prediction Matrix of Relationship Activities. *Journal of Business Research, 39, 5-12.*
- FORD, D. 1980. The Development of Buyer-Seller Relationships in Industrial Markets. *European Journal of Marketing, 14, 339.*
- FORD, D. 1985. Buyer/Seller Relationships in International Industrial Markets. *International Executive, 27, 13-14.*
- FORD, D. 1990. *The development of buyer-seller relationships in industrial markets, Understanding Business Markets: Interactions, Relationships and Networks, Cambridge, Academic Press.*
- FORD, D., GADDE, L.-E., HAKANSSON, H., LUNDGREN, A., SNEHOTA, I., TURNBULL, P. & WILSON, D. 1998. *Managing Business Relationships.*
- FORNELL, C. & LARCKER, D. F. 1981. Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research (JMR), 18(3), 382-388.*
- FRAZIER, M. L., JOHNSON, P. D., GAVIN, M., GOOTY, J. & SNOW, D. B. 2010. Organizational Justice, Trustworthiness, and Trust: A Multifoci Examination. *Group & Organization Management, 35, 39-76.*
- GALE, B. T. 1994. *Managing Customer Value, New York, The Free Press.*
- GANESAN, S. 1994. Determinants of long-term orientation in buyer-seller relationships.
- GANESH, J., ARNOLD, M. J. & REYNOLDS, K. E. 2000. Understanding the Customer Base of Service Providers: An Examination of the Differences Between Switchers and Stayers. *Journal of Marketing, 64, 65-87.*
- GARRITY, J. 2010. Drive Customer Loyalty with Net Promoter Score. *ABA Bank Marketing, 42, 30-33.*
- GASSENHEIMER, J. B., HOUSTON, F. S. & DAVIS, J. C. 1998. The Role of Economic Value, Social Value, and Perceptions of Fairness in Interorganizational Relationship Retention Decisions. *Journal of the Academy of Marketing Science, 26, 322-337.*
- GEFEN, D., STRAUB, D. & BOUDREAU, M. C. 2000. Structural equation modeling and regression: Guidelines for research practise. *Communications of the Association for Information Systems, 4 (7), 1-78.*
- GLYNN, M. S., MOTION, J. & BRODIE, R. J. 2007. Sources of brand benefits in manufacturer-reseller B2B relationships. *Journal of Business & Industrial Marketing, 22, 400-409.*
- GOLDMAN, N. 2009. The Real Value Behind Net Promoter Score: Action Items It Uncovers. *Credit Union Journal.*
- GOULD-WILLIAMS, J. & DAVIES, F. 2005. Using social exchange theory to predict the effects of hr practice on employee outcomes. *Public Management Review, 7, 1-24.*
- GOUNARIS, S. P., TZEMPELIKOS, N. P. & CHATZIPANAGIOTOU, K. 2007. The Relationships of Customer-Perceived Value, Satisfaction, Loyalty and Behavioral Intentions. *Journal of Relationship Marketing, 6, 63-87.*
- GOUNARIS, S. P. & VENETIS, K. 2002. Trust in industrial service relationships: behavioral consequences, antecedents and the moderating effect of the duration of the relationship. *Journal of Services Marketing, 16, 636.*

- GRANOVETTER, M. 1985. Economic action and social structure: A theory of embeddedness. *American Journal of Sociology*, 91, 481-510.
- GRANOVETTER, M. 1992. Economic Institutions as Social constructions: A Framework for Analysis. *Acta Sociologica (Taylor & Francis Ltd)*, 35, 3-11.
- GRANOVETTER, M. 2005. The Impact of Social Structure on Economic Outcomes. *Journal of Economic Perspectives*, 19, 33-50.
- GRONROOS, C. 1996. Relationship marketing: Strategic and tactical implications. *Management Decision*, 34, 5.
- GRÖNROOS, C. 1995. Relationship Marketing: The Strategy Continuum. *Journal of the Academy of Marketing Science*, 23, 252-254.
- GUADAGNI, P. M. & LITTLE, J. D. C. 1983. A LOGIT Model of Brand Choice Calibrated on Scanner Data. *Marketing Science*, 2, 203.
- GUMMESSON, E. 1999. *Total Relationship Marketing--Rethinking Marketing Management: From 4Ps to 30Rs.*, Oxford, UK: Butterworth-Heinemann.
- GUMMESSON, E. 2010. Business in Networks, by Håkan Håkansson, David Ford, Lars-Erik Gadde, Ivan Snehota and Alexandra Waluszewski. *Journal of Business-to-Business Marketing*, 17, 308-316.
- GUPTA, S. 2009. Customer-Based Valuation.
- GUPTA, S., HANSENS, D., HARDIE, B., KAHN, W., KUMAR, V., LIN, N., RAVISHANKER, N. & SRIRAM, S. 2006a. Modeling Customer Lifetime Value.
- GUPTA, S., HANSENS, D., HARDIE, B., KAHN, W., KUMAR, V., LIN, N. & SRIRAM, N. R. S. 2006b. Modeling Customer Lifetime Value. *Journal of Service Research*, 9, 139-155.
- GUPTA, S., LEHMANN, D. & STUART, J. 2004. Valuing customers.
- GUPTA, S. & LEHMANN, D. R. 2003. Customers as Assets. *Journal of Interactive Marketing (John Wiley & Sons)*, 17, 9-24.
- HAIR, J. F., ANDERSON, R. E., TATHAM, R. L. & BLACK, W. C. 1992. *Multivariate data analysis with readings Macmillan Publishing Company*, New York, NY., Macmillan.
- HAIR, J. F., BLACK, W. C., BABIN, B. J., ANDERSON, R. E. & TATHAM, R. L. 2010. *Multivariate data analysis (vol. 5)*, New York, Pearson Prentice Hall.
- HAIR, J. F., RINGLE, C. M. & SARSTEDT, M. 2011. PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory & Practice*, 19, 139-152.
- HAKANSSON, H. 1980. Marketing Strategies in Industrial Markets. *European Journal of Marketing*, 14, 365.
- HAKANSSON, H. 1982. International Marketing and Purchasing of Industrial Goods An Interaction Approach. *Marketing News*, 15, 8-8.
- HAKANSSON, H. & SNEHOTA, I. 1995. *Developing relationships in business networks*, London ; New York : Routledge, 1995. xiv, 418 p. : ill. ; 24 cm. .
- HÅKANSSON, H. & SNEHOTA, I. 2006. No business is an island: The network concept of business strategy. *Scandinavian Journal of Management*, 22, 256-270.
- HARCSA, I. & KOVÁCS, I. 1996. Farmerek és mezőgazdasági vállalkozók. in *Társadalmi riport, Tárki, Századvég.*
- HARRIS, L. C. & GOODE, M. M. H. 2004. The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. *Journal of Retailing*, 80, 139-158.

- HAYES, R. H. & ABERNATHY, W. J. 1980. Managing our way to economic decline. *Harvard Business Review*, 58, 67-77.
- HEIDER, F. 1958. *The psychology of interpersonal relations*, LEA.
- HELM, S. 2003. Calculating the value of customers' referrals. *Managing Service Quality*, 13, 124-133.
- HENSELER, J., RINGL, C. M. & SINKOVICS, R. R. 2009. The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20, 277-319.
- HENTHORNE, T. L. & LATOUR, M. S. 1992. Perceived Risk in the Organizational Buyer Environment. *American Business Review*, 10, 68.
- HERMANN, A. & FUDERER, E. 1997. The value of passenger car customers. in Johnson M.D. Harrmann, A. Huber, F. and Gustafsson, A. (Eds), *Customer Retention in the Automotive Industrie*, Gabler, Wiesbaden, pp. 349-372.
- HERRMANN, S. & HOMBURG, C. 1995. *Kundenzufriedenheit Konzepte-Methode-Erfahrungen*, Gabler.
- HESKETT, J. L., JONES, T. O., LOVEMAN, G. W., EARL SASSER, W., JR. & SCHLESINGER, L. A. 1994. Putting the Service-Profit Chain to Work.
- HETESI, E. 2011. Értelmezhető-e a lojalitás a B2B piacokon? *Vezetéstudomány*, 1, 31-40.
- HIRSCHMAN, E. C. 1987. People as Products: Analysis of a Complex Marketing Exchange. *Journal of Marketing*, 51, 98-108.
- HOFMEISTER-TÓTH, Á., SIMON, J. & SAJTOS, L. 2003. *Fogyasztói elégedettség*, Alinea Kiadó.
- HOGAN, J. E., LEHMANN, D. R., MERINO, M., SRIVASTAVA, R. K., THOMAS, J. S. & VERHOAF, P. C. 2002a. Linking Customer Assets to Financial Performance. *Journal of Service Research*, 5, 26.
- HOGAN, J. E., LEMON, K. N. & LIBAI, B. 2003a. What Is the True Value of a Lost Customer?
- HOGAN, J. E., LEMON, K. N. & LIBAI, B. 2003b. What Is the True Value of a Lost Customer? *Journal of Service Research*, 5, 196.
- HOGAN, J. E., LEMON, K. N. & RUST, R. T. 2002b. Customer Equity Management: Charting New Directions for the Future of Marketing. *Journal of Service Research*, 5, 4.
- HOLM, D. B., ERIKSSON, K. & JOHANSON, J. 1999. Creating value through mutual commitment to business network relationships. *Strategic Management Journal*, 20, 467.
- HOMANS, C. G. 1958. Social behavior as exchange. *American Journal of Sociology*, 63, 597-606.
- HOMANS, G. 1961. *Social Behaviour: Its Elementary Forms*, New York, Harcourt, Brace and World.
- HOMBURG, C. & BAUMGARTNER, H. 1996. Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, 13, 139-161.
- HOMBURG, C. & KLARMANN, M. 2009. Multi Informant-Designs in der empirischen betriebswirtschaftlichen Forschung – Problemfelder und Anwendungsempfehlungen. *DBW – Die Betriebswirtschaft*, 69, 147-171.
- HOMBURG, C. & KROHMER, H. 2003. *Marketingmanagement: Strategie - Instrumente - Umsetzung - Unternehmensführung*, Wiesbaden, Gabler.
- HOUSTON, F. S. & GASSENHEIMER, J. B. 1987. Marketing and Exchange. *Journal of Marketing*, 51, 3-18.

- HOYER, W. D. 1984. An Examination of Consumer Decision Making for a Common Repeat Purchase Product. *Journal of Consumer Research*, 11, 822-829.
- HU, L.-T. & BENTLER, P. M. 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55.
- HUNT, S. D., ARNETT, D. B. & MADHAVARAM, S. 2006. The explanatory foundations of relationship marketing theory. *Journal of Business & Industrial Marketing*, 21, 72-87.
- HUNT, S. D. & MORGAN, R. M. 1994. Relationship Marketing in the Era of Network Competition. *Marketing Management*, 3, 18-28.
- HUNT, S. D. & MORGAN, R. M. 1995. The comparative advantage theory of competition. *Journal of Marketing*, 59, 1.
- JACKSON, B. B. 1986. Winning & keeping Industrial Customer: The Dynamics of Customer Relationships. *Marketing News*, 20, 19-19.
- JACOBS, D. 1974. Dependency and vulnerability: An exchange approach to the control of organizations. *Administrative Science Quarterly*, 19, 45-59.
- JAIN, D. C. & SINGH, S. S. 2002. Customer Lifetime Value Research in Marketing: A Review and Future Directions.
- JANCIC, Z. & ZABKAR, V. 2002. Impersonal vs. Personal Exchanges in Marketing Relationships. *Journal of Marketing Management*, 18, 657-671.
- JIANG, J. Y., LI-YUN, S. & LAW, K. S. 2011. Job Satisfaction and Organization Structure as Moderators of the Effects of Empowerment on Organizational Citizenship Behavior: A Self-Consistency and Social Exchange Perspective. *International Journal of Management*, 28, 675-693.
- JOHNSTON, W. J. & BONOMA, T. V. 1981. The Buying Center: Structure and Interaction Patterns *Journal of Marketing*, 45, 143-156.
- JÖRESKOG, K. G. & SÖRBOM, D. 1993. LISREL 8: Structural equation modeling with the SIMPLIS command language. *Scientific Software International, Lincolnwood, Illinois*.
- KAHN, B. E., KALWANI, M. U. & MORRISON, D. G. 1986. Measuring Variety-Seeking and Reinforcement Behaviors Using Panel Data. *Journal of Marketing Research (JMR)*, 23, 89-100.
- KALWANI, M. U. & MORRISON, D. G. 1977. Estimating the Proportion of "Always Buy" and "Never Buy" Consumers: A Likelihood Ratio Test With Sample Size Implications. *Journal of Marketing Research (JMR)*, 14, 601-606.
- KAMAKURA, W. A., MITTAL, V., DE ROSA, F. & AFONSO MAZZON, J. 2002. Assessing the Service-Profit Chain.
- KATZ, G. S., RESTORI, A. F. & LEE, H. B. 2009. A Monte Carlo Study Comparing the Levene Test to Other Homogeneity of Variance Tests. *North American Journal of Psychology*, 11, 511-521.
- KELLER, K. L. 1993. Conceptualizing, Measuring, Managing Customer-Based Brand Equity. *Journal of Marketing*, 57, 1-22.
- KELLEY, H. H. & MICHELA, J. L. 1980. Attribution Theory and Research. *Annual Review of Psychology*, 31, 457-501.
- KEREKES, S. & KINDLER, J. 1998. *Vállalati környezet-menedzsment*.
- KINGSHOTT, R. P. J. 2006. The impact of psychological contracts upon trust and commitment within supplier-buyer relationships: A social exchange view. *Industrial Marketing Management*, 35, 724-739.

- KLEINE, S. S., KLEINE III, R. E. & ALLEN, C. T. 1995. How Is a Possession "Me" or "Not Me"? Characterizing Types and an Antecedent of Material Possession Attachment. *Journal of Consumer Research*, 22, 327-343.
- KOLTAY, G. & VINCZE, J. 2009. Fogyasztói döntések a viselkedési közgazdaságtan szemszögéből. *Közgazdasági szemle (Journal of Economic Literature)*, LVI., 495-525.
- KÓSI, K. & VALKÓ, L. 2006. *Környezetmenedzsment*, Typotex Kiadó.
- KOTLER, P. 1967. *Managerial Marketing, Planning, Analysis, and Control*, Englewood Cliffs, NJ: Prentice Hall.
- KOTLER, P. 1972. A Generic Concept of Marketing. *Journal of Marketing*, 36, 46-54.
- KOTLER, P. 1973. The Major Tasks of Marketing Management. *Journal of Marketing*, 37, 42-49.
- KOTLER, P. & ARMSTRONG, G. 1996. *Principles of Marketing*, Englewood Cliffs, NJ: Prentice-Hall.
- KSH 2011. Statisztikai Tükör 2011. március 29.
- KUMAR, N., LISA, S. & JAN-BENEDICT, E. M. S. 1995a. The Effects of Perceived Interdependence on Dealer Attitudes.
- KUMAR, N., SCHEER, L. K. & STEENKAMP, J.-B. E. M. 1995b. The Effects of Perceived Interdependence on Dealer Attitudes. *Journal of Marketing Research (JMR)*, 32, 348-356.
- KUMAR, V. & GEORGE, M. 2007. Measuring and maximizing customer equity: a critical analysis. *Journal of the Academy of Marketing Science*, 35, 157-171.
- KUMAR, V., LEMON, K. N. & PARASURAMAN, A. 2006. Managing Customers for Value: An Overview and Research Agenda. *Journal of Service Research*, 9, 87-94.
- KUMAR, V., PETERSEN, J. A. & LEONE, R. P. 2010. Driving Profitability by Encouraging Customer Referrals: Who, When, and How. *Journal of Marketing*, 74, 1-17.
- KUMAR, V. M., POZZA, D., PETERSEN, J. A. & SHAH, D. 2009. Reversing the Logic: The Path to Profitability through Relationship Marketing.
- LAMBERT, N. 1987. Communicating Experience: Deriving Theory from Direct Marketing Practice. *Journal of Direct Marketing*, 1, 23-29.
- LEONE, R. P., RAO, V. R., KELLER, K. L., LUO, A. M., MCALISTER, L. & SRIVASTAVA, R. 2006. Linking Brand Equity to Customer Equity. *Journal of Service Research*, 9, 125-138.
- LEVINE, S. & WHITE, P. E. 1961. Exchange as a Conceptual Framework for the Study of Interorganizational Relationships. *Administrative Science Quarterly*, 5, 583-601.
- LEVINGER, G. 1980. Toward the analysis of close relationships. *Journal of Experimental Social Psychology*, 16.
- LEWITT, T. 1960. Marketing Myopia. *Harvard Business Review*, July-August.
- LICHTLÉ, M.-C. & PLICHON, V. 2008. Understanding better consumer loyalty. *Recherche et Applications en Marketing (English Edition)*, 23, 121-140.
- LIN, T.-C. & HUANG, C.-C. 2010. Withholding effort in knowledge contribution: The role of social exchange and social cognitive on project teams. *Information & Management*, 47, 188-196.
- LUKAS, B. A., GREGORY, J. W. & DOYLE, P. 2005. How can a shareholder value approach improve marketing's strategic influence? *Journal of Business Research*, 58, 414-422.

- MACPHERSON, D. 2010. Now Is a Good Time to Get Referrals. *Journal of Financial Planning*, 10-11.
- MAHAJAN, V., MULLER, E. & BASS, F. M. 1990. New Product Diffusion Models in Marketing: A Review and Directions for Research. *Journal of Marketing*, 54, 1-26.
- MALHOTRA, N. K. & SIMON, J. 2008. *Marketingkutató*, Budapest, Akadémiai Kiadó.
- MANDJÁK, T. 2002. *Az üzleti kapcsolatok értéke, doktori disszertáció*. Budapesti Közgazdaságtudományi és Államigazgatási Egyetem.
- MANDJÁK, T. 2010. A bizalom szerepe az üzleti kapcsolatokban. *Corvinus Marketing Tanulmányok*, 2010, 39-45.
- MCCARTHY, E. J. & PERREAULT, W. D. 1984. *Basic Marketing*, Irwin, Homewood, Illinois.
- MCKENNA, R. 2007. Relationship Marketing. *Bloomsbury Business Library - Management Library*, 91-91.
- MENG, J., ELLIOTT, K. M. & HALL, M. C. 2010. Technology Readiness Index (TRI): Assessing Cross-Cultural Validity. *Journal of International Consumer Marketing*, 22, 19-31.
- MERRICK, B. 2009. Net Promoter Score sparks creative ways to improve member loyalty. *Credit Union Magazine*, 75, 28-31.
- MITEV, A. 2005. *A társadalmi marketing elméleti és empirikus kérdései Egyetemisták alkoholfogyasztási történeteinek narratív elemzése*. Corvinus University of Budapest.
- MOLINARI, L. K., ABRATT, R. & DION, P. 2008. Satisfaction, quality and value and effects on repurchase and positive word-of-mouth behavioral intentions in a B2B services context. *Journal of Services Marketing*, 22, 363-373.
- MORGAN, R. M. & HUNT, S. D. 1994. The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58, 20.
- MORGAN, R. M. & SHELBY, D. H. 1994. The Commitment Trust Theory of Relationship Marketing.
- MORRISON, D. G. & SCHMITTLEIN, D. C. 1988. Generalizing the NBD Model for Customer Purchases: What Are the Implications and Is It Worth the Effort? *Journal of Business & Economic Statistics*, 6, 145-159.
- MULHERN, F. J. 1999. Customer Profitability Analysis: Measurement, Concentration, and Research Directions.
- MURRAY, K. B. 1991. A test of services marketing theory: Consumer information acquisition activities.
- NAGY, S. 2005. *Környezettudatos marketing*.
- NAGY, S. 2009. Környezettudatos marketing. *VII. Nemzetközi Tudományos Konferencia 58.-63.o.*  
*Miskolci Egyetem Gazdaságtudományi Kar.*
- NARVER, J. C. & SLATER, S. F. 1990. The effect of a market orientation on business profitability. *Journal of Marketing*, 54, 20-35.
- NAUDE, P. & BUTTLE, F. 2000. Assessing Relationship Quality. *Industrial Marketing Management*, 29, 351.
- NAUMANN, E., GIEL, K. & REINHOLD., V. N. 1995. Customer Satisfaction Measurement & Management. *Business Philadelphia*, 6, 13.
- NEVES, P. & CAETANO, A. 2006. Social Exchange Processes in Organizational Change: The Roles of Trust and Control. *Journal of Change Management*, 6, 351-364.

- NEWMAN, M. E. J. 2003. The Structure and Function of Complex Networks. *SIAM Review*, 45, 167.
- NORD, W. R. 1980. The Study of Organizations through a Resource-Exchange Paradigm. In: GERGEN, K. J. G., MARTIN S.; WILLIS, RICHARD H.. (ed.) *Social Exchange, Advances in Theory and Research*. NY and London: Plenum Press.
- NYÍRŐ, N. 2011. *Médiatechnológiai innovációk elfogadása és terjedése*. Doktori disszertáció/Doctoral Thesis, Budapesti Corvinus Egyetem.
- OLIVER, L. 1997. *Satisfaction: A Behavioral Perspective on the Consumer*.
- OLIVER, R. L. 1980. A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions.
- OLIVER, R. L. 1993. Cognitive, Affective, and Attribute Bases of the Satisfaction Response. *Journal of Consumer Research*, 20, 418-430.
- PARASURAMAN, A. 1997. Reflections on Gaining Competitive Advantage Through Customer Value. *Journal of the Academy of Marketing Science*, 25, 154.
- PARASURAMAN, A. 2000. Technology Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. *Journal of Service Research*, 2 (May), p. 307-320.
- PARASURAMAN, A., BERRY, L. L. & ZEITHAML, V. A. 1991. Refinement and Reassessment of the SERVQUAL Scale. *Journal of Retailing*, 67, 420.
- PARASURAMAN, A., ZEITHAML, V. A. & BERRY, L. L. 1985. A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49, 41-50.
- PARASURAMAN, A., ZEITHAML, V. A. & BERRY, L. L. 1988. SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64, 5-6.
- PARK, J. E. 2008. Psychometric Properties of Technology Readiness Index (TRI) Measure. *Society for Marketing Advances Proceedings*, 239-239.
- PARVATIYAR, A. & SHETH, J. N. 2001. Customer Relationship Management: Emerging Practice, Process, and Discipline. *Journal of Economic & Social Research*, 3, 1.
- PAULSSEN, M. & BIRK, M. M. 2007. Satisfaction and repurchase behavior in a business-to-business setting: Investigating the moderating effect of manufacturer, company and demographic characteristics. *Industrial Marketing Management*, 36, 983-997.
- PAUWELS, K. & WEISS, A. 2008. Moving from Free to Fee: How Online Firms Market to Change Their Business Model Successfully. *Journal of Marketing*, 72, 14-31.
- PAYNE, A. & HOLT, S. 2001. Diagnosing Customer Value: Integrating the Value Process and Relationship Marketing. *British Journal of Management*, 12, 159.
- PETRISON, L. A., BLATTBERG, R. C. & WANG, P. 1997. Database marketing – past, present and future. *Journal of Direct Marketing*, 11, 109-25.
- PFEIFER, P. E. & CARRAWAY, R. L. 2000. Modeling Customer Relationships as Markov Chains. *Journal of Interactive Marketing (John Wiley & Sons)*, 14, 43-55.



- PISCOPO, M. G. Year. Creating Value through Customer specific Marketing Investments in a B2B Context. *In*, 2007/01// 2007. American Marketing Association, 190-197.
- PISKÓTI, I. & NAGY, S. 2009. A new Customer Satisfaction Management Model (Methodology and Practise). *Economics & Management*, 483-490.
- PITT, L. F., EWING, M. T. & BERTHON, P. 2000. Turning Competitive Advantage into Customer Equity. *Business Horizons*, 43, 11.
- RANAWEERA, C. & PRABHU, J. 2003. On the relative importance of customer satisfaction and trust as determinants of customer retention and positive word of mouth. *Journal of Targeting, Measurement & Analysis for Marketing*, 12, 82-90.
- RAPPAPORT, A., BLYTH, M. L. & FRISKEY, E. A. 1986. Implementing the Shareholder Value Approach *Journal of Business Strategy*, 6, 48.
- RAUYRUEN, P. & MILLER, K. E. 2007. Relationship quality as a predictor of B2B customer loyalty. *Journal of Business Research*, 60, 21-31.
- RAUYRUEN, P., MILLER, K. E. & GROTH, M. 2009. B2B services: linking service loyalty and brand equity. *Journal of Services Marketing*, 23, 175-186.
- RAVALD, A. & GRÖNROOS, C. 1996. The value concept and relationship marketing. *European Journal of Marketing*, 30, 19-30.
- REDMOND, W. H. 1996. Product disadoption: Quitting smoking as a diffusion process. *Journal of Public Policy & Marketing*, 15, 87-97.
- REICHHELD, F. F. 1993. Loyalty-based management. *Harvard Business Review*, 71, 64-73.
- REICHHELD, F. F. 1994. Loyalty and the Renaissance of Marketing. *Marketing Management*, 2, 10-21.
- REICHHELD, F. F. 2003. The One Number You Need to Grow. (cover story). *Harvard Business Review*, 81, 46-54.
- REICHHELD, F. F., PINE II, B. J. & BATT, M. 1996. Customer Service on British Airways Harvard Business School Publication Corp.
- REICHHELD, F. F. & SASSER JR, W. E. 1990. Zero defections: Quality comes to services. *Harvard Business Review*, 68, 105-111.
- REICHHELD, F. F. & SCHEFTER, P. 2000. E-Loyalty. *Harvard Business Review*, 78, 105-113.
- REICHHELD, F. F. & TEAL, T. A. 2001. Loyalty Effect: The Hidden Force Behind Growth, Profits, and Lasting Value (Hardcover). *Harvard Business School Press Books*, 1.
- REINARTZ, W., KRAFFT, M. & HOYER, W. D. 2004. The Customer Relationship Management Process: Its Measurement and Impact on Performance.
- REINARTZ, W., THOMAS, J. S. & KUMAR, V. 2005a. Balancing Acquisition and Retention Resources to Maximize Customer Profitability. *Journal of Marketing*, 69, 63-79.
- REINARTZ, W. J. & KUMAR, V. 2000a. On the Profitability of Long-Life Customers in a Noncontractual Setting: An Empirical Investigation and Implications for Marketing.
- REINARTZ, W. J. & KUMAR, V. 2000b. On the profitability of longlife customers in a noncontractual setting: An empirical investigation and implications for marketing.
- REINARTZ, W. J. & KUMAR, V. 2003a. The Impact of Customer Relationship Characteristics on Profitable Lifetime Duration. *Journal of Marketing*, 67, 77-99.

- REINARTZ, W. J. & KUMAR, V. 2003b. The impact of customer relationship characteristics on profitable lifetime duration.
- REINARTZ, W. J., THOMAS, J. S. & KUMAR, V. 2005b. Balancing acquisition and retention resources to maximize customer profitability.
- REKETTYE, G. 2004. Értékteremtés-értékmenedzsment. *Harvard Business Manager (magyar)*, 6.
- ROBERT, D. F. 1989. Customer Lifetime Valuation to Support Marketing Decision Making.
- ROBINSON, P. J., FANS, C. W. & WIND, Y. 1967. Industrial Buying and Creative Marketing. Boston: Allyn and Bacon.
- ROGERS, E. M. 1995. *The Diffusion of Innovations*, The free press.
- ROKEACH, M. 1975. The Nature of Human Values (Book). *Social Forces*, 53, 659-660.
- RUST, R., ZEITHAML, V., LEMON, K. & GORDON, R. M. 2000. Driving Customer Equity. *Marketing Management*, 9, 62-63.
- RUST, R. T., AMBLER, T., CARPENTER, G. S., KUMAR, V. & SRIVASTAVA, R. K. 2004a. Measuring Marketing Productivity: Current Knowledge and Future Directions. *Journal of Marketing*, 68, 76-89.
- RUST, R. T., LEMON, K. N. & NARAYANDAS, D. 2005. *Customer Equity Management*, New Jersey, Pearson Prentice Hall.
- RUST, R. T., LEMON, K. N. & ZEITHAML, V. 2004b. Return on marketing: Using customer equity to focus marketing strategy.
- RUST, R. T., LEMON, K. N. & ZEITHAML, V. A. 2001. Where Should the Next Marketing Dollar Go? *Marketing Management*, 10, 24-28.
- RUST, R. T., LEMON, K. N. & ZEITHAML, V. A. 2004c. Return on Marketing: Using Customer Equity to Focus Marketing Strategy.
- RUST, R. T., MOORMAN, C. & DICKSON, P. R. 2002. Getting Return on Quality: Revenue Expansion, Cost Reduction or Both?
- RUST, R. T., ZAHORIK, A., J. & KEININGHAM, T., L. 1995a. Return on Quality (ROQ): Making Service Quality Financially Accountable.
- RUST, R. T., ZAHORIK, A. J. & KEININGHAM, T. L. 1995b. Return on quality (ROQ): Making service quality financially accountable. *Journal of Marketing*, 59, 58.
- RYU, S., MIN, S. & ZUSHI, N. 2008. The moderating role of trust in manufacturer-supplier relationships. *Journal of Business & Industrial Marketing*, 23, 48-58.
- RYU, S., PARK, J. E. & MIN, S. 2007. Factors of determining long-term orientation in interfirm relationships. *Journal of Business Research*, 60, 1225-1233.
- SAHAY, B. S. 2003. Understanding trust in supply chain relationships. *Industrial Management & Data Systems*, 103, 553-564.
- SAJTOS, L. & MITEV, A. 2007. *SPSS kutatási és adatelemzési kézikönyv*, Alinea.
- SALMINEN, R. T. & MÖLLER, K. 2006. Role of References in Business Marketing -- Towards a Normative Theory of Referencing. *Journal of Business-to-Business Marketing*, 13, 1-48.
- SAUER, P. L. & DICK, A. 1993. Using Moderator Variables in Structural Equation Models. *Advances in Consumer Research*, 20, 637-640.
- SCHMITT, P., SKIERA, B. & VAN DEN BULTE, C. 2011. Referral Programs and Customer Value. *Journal of Marketing*, 75, 46-59.
- SCHMITTLEIN, D. C., BEMMAOR, A. C. & MORRISON, D. G. 1985. Why does the NBD Model work? Robustness in representing Product Purchases, Brand Purchases and imperfectly recorded Purchases *Marketing Science*, 4, 255.

- SCHMITTLEIN, D. C., MORRISON, D. G. & COLOMBO, R. 1987. Counting your Customers: Who are they and what will they do next? *Management Science*, 33, 1-24.
- SCHOLDERER, J., BALDERJAHN, I. & PAULSSEN, M. 2006. Kausalität, Linearität, Reliabilität: Drei Dinge, die Sie nie über Strukturgleichungsmodelle wissen wollten *DBW – Die Betriebswirtschaft-online, Schäffer-Poeschel Verlag, Stuttgart*, 6.
- SCHUMANN, J. H., V. WANGENHEIM, F., STRINGFELLOW, A., YANG, Z., BLAZEVIC, V., PRAXMARER, S., SHAINESH, G., KOMOR, M., SHANNON, R. M. & JIMÉNEZ, F. R. 2010. Cross-Cultural Differences in the Effect of Received Word-of-Mouth Referral in Relational Service Exchange. *Journal of International Marketing*, 18, 62-80.
- ŞENGÜN, A. E. & WASTI, S. N. 2011. Trust types, distrust, and performance outcomes in small business relationships: the pharmacy-drug warehouse case. *Service Industries Journal*, 31, 287-309.
- SEVIN, C. H. 1965. Marketing productivity analysis. *McGraw-Hill, New York*.
- SEYMOUR, H. & RIFKIN, L. 1998. Study shows satisfaction not the same as loyalty. *Marketing News*, 32, 40-42.
- SHARMA, A. 2007. The Metrics of Relationships: Measuring Satisfaction, Loyalty and Profitability of Relational Customers. *Journal of Relationship Marketing*, 6, 33.
- SHARP, B. 2008. Net Promoter Score Fails the Test. *Marketing Research*, 20, 28-30.
- SHETH, J. N. 1972. Stochastic Models of Buying Behavior *Journal of Marketing Research (JMR)*, 9, 472-473.
- SHETH, J. N. 1973. A Model of Industrial Buyer Behavior. *Journal of Marketing*, 37, 50-56.
- SHETH, J. N. & ATUL, P. 1995. Relationship Marketing in Consumer Markets: Antecedents and Consequences.
- SHETH, J. N. & PARVATIYAR, A. 1995. The Evolution of Relationship Marketing. *International Business Review*, 4, 397.
- SHETH, J. N. & PARVATIYAR, A. 2002. Evolving Relationship Marketing into a Discipline. *Journal of Relationship Marketing*, 1, 3.
- SIKOS, T. T. & KOVÁCS, A. 2011. A kiskereskedelmi versenyképesség egy határ menti városban (Komárno)  
Retail competitiveness in a border town (Komárno). *Tér és Társadalom (Space and Society)*, 25.
- SIMESTER, D. I., HAUSER, J. R., WERNERFELT, B. & RUST, R. T. 2000. Implementing Quality Improvement Programs Designed to Enhance Customer Satisfaction: Quasi-Experiments in the United States and Spain. *Journal of Marketing Research (JMR)*, 37, 102-112.
- SINKULA, J. M. 1994. Market Information Processing and Organizational Learning. *Journal of Marketing*, 58, 35-45.
- SLATER, S. F. & NARVER, J. C. 1994. Does Competitive Environment Moderate the Market Orientation- Performance Relationship? *Journal of Marketing*, 58, 46-55.
- SLATER, S. F. & NARVER, J. C. 2000. Intelligence Generation and Superior Customer Value. *Journal of the Academy of Marketing Science*, 28, 120.
- SOHN, K. & SHIM, H. 2010. Factors generating boardings at Metro stations in the Seoul metropolitan area. *Cities*, 27, 358-368.

- SPRENG, R. A., HUI SHI, L. & PAGE, T. F. 2009. Service quality and satisfaction in business-to-business services. *Journal of Business & Industrial Marketing*, 24, 537-548.
- SRIVASTAVA, R. K., SHERVANI, T. A. & FAHEY, L. 1998. Market-Based Assets and Shareholder Value: A Framework for Analysis. *Journal of Marketing*, 62, 2-18.
- SRIVASTAVA, R. K., SHERVANI, T. A. & FAHEY, L. 1999. Marketing, Business Processes, and Shareholder Value: An Organizationally Embedded View of Marketing Activities and the Discipline of Marketing. *Journal of Marketing*, 63, 168-179.
- STAUSS, B. & WEINLICH, B. 1997. Process-oriented measurement of service quality. *European Journal of Marketing*, 31, 33-55.
- STEENKAMP, J.-B. E. M. & BAUMGARTNER, H. 1998. Assessing Measurement Invariance in Cross-National Consumer Research. *Journal of Consumer Research*, 25, 78-90.
- STORBACKA, K. 1997. Segmentation Based on Customer Profitability-- Retrospective Analysis of Retail Bank Customer Bases. *Journal of Marketing Management*, 13, 479-492.
- STORBACKA, K. & NENONEN, S. 2009. Customer relationships and the heterogeneity of firm performance. *Journal of Business & Industrial Marketing*, 24, 360-372.
- STORBACKA, K., STRANDVIK, T. & GRÖNROOS, C. 1994. Managing Customer Relationships for Profit: The Dynamics of Relationship Quality. *International Journal of Service Industry Management*, 5, 21.
- SVENSSON, G. 2004. Vulnerability in business relationships: the gap between dependence and trust. *Journal of Business & Industrial Marketing*, 19, 469-483.
- SWAN, J. E. & OLIVER, R. L. 1989. Postpurchase Communications by Consumers. *Journal of Retailing*, 65, 516.
- SZÚCS, K. 2008. *Fogyasztói piacok szegmentációja a trendaffinitás dimenziójában*. Ph.D. Értekezés, Pécsi Tudományegyetem.
- TAX, S. S., CHANDRASREKARAN, M. & CHRISTIANSEN, T. 1993. Word of mouth in customer decision-making: an agenda for research. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 6, 74.
- TECK-HUA, H., YOUNG-HOON, P. & YONG-PIN, Z. 2006. Incorporating Satisfaction into Customer Value Analysis: Optimal Investment in Lifetime Value. *Marketing Science*, 25, 260-277.
- THIBAUT, J. W. & KELLEY, H. H. 1959. *The social psychology of groups*, Oxford, John Wiley.
- THOMAS, J. S. 2001. A Methodology for Linking Customer Acquisition to Customer Retention. *Journal of Marketing Research (JMR)*, 38, 262-268.
- ULAGA, W. & EGGERT, A. 2006. Value-Based Differentiation in Business Relationships: Gaining and Sustaining Key Supplier Status. *Journal of Marketing*, 70, 119-136.
- VAN DOORN, J. 2008. Is There a Halo Effect in Satisfaction Formation in Business-to-Business Services? *Journal of Service Research*, 11, 124-141.
- VENKATESAN, R. & KUMAR, V. 2004. A Customer Lifetime Value Framework for Customer Selection and Resource Allocation Strategy. *Journal of Marketing*, 68, 106-125.

- VERHOEF, P. C. & DONKERS, B. 2001. Predicting customer potential value an application in the insurance industry. *Decision Support Systems*, 32, 189.
- VERHOEF, P. C. & DONKERS, B. 2005. The effect of acquisition channels on customer loyalty and cross-buying. *Journal of Interactive Marketing (John Wiley & Sons)*, 19, 31-43.
- VERHOEF, P. C., FRANSES, P. H. & HOEKSTRA, J. C. 2002. The Effect of Relational Constructs on Customer Referrals and Number of Services Purchased From a Multiservice Provider: Does Age of Relationship Matter? *Journal of the Academy of Marketing Science*, 30, 202-216.
- VESEL, P. & ZABKAR, V. 2009. Managing customer loyalty through the mediating role of satisfaction in the DIY retail loyalty program. *Journal of Retailing & Consumer Services*, 16, 396-406.
- VIEIRA, A. L. 2009. Business-to-Business Relationship Quality. *Portuguese Journal of Management Studies*, 14, 197-215.
- VILLANUEVA, J., YOO, S. & HANSSSENS, D. M. 2008. The Impact of Marketing-Induced Versus Word-of-Mouth Customer Acquisition on Customer Equity Growth. *Journal of Marketing Research (JMR)*, 45, 48-59.
- WALTER, A., RITTER, T. & GEMÜDEN, H. G. 2001. Value Creation in Buyer - Seller Relationships. *Industrial Marketing Management*, 30, 365-377.
- WANGENHEIM, F. 2002. *Weiterempfehlung und Kundenwert, Ein Ansatz zur persönlichen Kommunikation*. Universitaet Mainz.
- WANGENHEIM, F. & BAYÓN, T. 2004. Satisfaction, loyalty and word of mouth within the customer base of a utility provider: Differences between stayers, switchers and referral switchers. *Journal of Consumer Behaviour*, 3, 211-220.
- WANGENHEIM, F. V. 2003. Situational Characteristics as Moderators of the Satisfaction-Loyalty Link: An Investigation in a Business-to-Business Context. *Journal of Consumer Satisfaction, Dissatisfaction & Complaining Behavior*, 16, 145-144.
- WANGENHEIM, F. V. & BAYÓN, T. 2007. The chain from customer satisfaction via word-of-mouth referrals to new customer acquisition. *Journal of the Academy of Marketing Science*, 35, 233-249.
- WATTS, D. J. 2004. The "New" Science of Networks. *Annual Review of Sociology*, 30, 243-270.
- WEBSTER, F. E., JR. 1965. Modeling the Industrial Buying Process.
- WEBSTER, F. E. & WIND, Y. 1972. Organizational buying behavior. Englewood Cliffs, NJ: Prentice-Hall.
- WEBSTER, F. E. J. 1970. Informal Communication in Industrial Markets. *Journal of Marketing Research (JMR)*, 7, 186-189.
- WEBSTER, F. E. J. 1992. The changing role of marketing in the corporation. *Journal of Marketing*, 56, 1.
- WEIBER, R. & MÜHLHAUS, D. 2010. *Strukturgleichungsmodellierung*, Berlin-Heidelberg, Springer.
- WERNERFELT, B. 1985. The Capital Asset Pricing Model and Strategic Planning *Management Science*, 31, 510-510.
- WESTBROOK, R. 1987. Product/Consumption-Based Affective Responses and Post-Purchase Processes.
- WESTBROOK, R. A. & OLIVER, R. L. 1981. Developing better Measures of Consumer Satisfaction: Some preliminary Results. *Advances in Consumer Research*, 8, 94-99.

- WHEELER, K. 1987. Referrals Between Professional Service Providers. *Industrial Marketing Management*, 16, 191-200.
- WIEDMANN, K.-P., HENNIGS, N. & LANGNER, S. 2007. Categorizing the Potential and Value of WOM-Referrals: Towards a Comprehensive Typology of Social Influencers. *AMA Winter Educators' Conference Proceedings*, 18, 22-24.
- WILSON, A. 1994. Stimulating referrals. *Management Decision*, 32, 13.
- WILSON, D. T. & JANTRANIA, S. 1996. Understanding the value of a relationship. *Asia - Australia Marketing Journal*, 2, 55-66.
- WILSON, E. J., BUNN, M. D. & SAVAGE, G. T. 2010. Anatomy of a social partnership: A stakeholder perspective. *Industrial Marketing Management*, 39, 76-90.
- WIND, Y. & WEBSTER, F. 1972. On The Study of Industrial Buying Behavior: Current Practices and Future Trends.
- WINSHIP, C. 1996. Social Network Analysis: Methods and Applications. *Journal of the American Statistical Association*, 91, 1373-1374.
- WOODRUFF, R. B. 1997. Customer Value: The Next Source for Competitive Advantage. *Journal of the Academy of Marketing Science*, 25, 139.
- WU, A. & ZUMBO, B. 2008. Understanding and Using Mediators and Moderators. *Social Indicators Research*, 87, 367-392.
- YOO, SHIJIN & HANSSENS 2005. Modeling the Sales and Customer Equity Effects of the Marketing Mix. *University of California, Los Angeles, Anderson School of Management*.
- ZBOJA, J. J. & HARTLINE, M. D. 2010. Using Internal Relationship Marketing Activities to Enhance Cross-Selling Performance in Services. *Journal of Relationship Marketing*, 9, 117-131.
- ZEITHAML, V. A. 1988. Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52, 2-22.
- ZEITHAML, V. A. 2000. Service Quality, Profitability, and the Economic Worth of Customers: What We Need to Learn.
- ZEITHAML, V. A., BERRY, L. L. & PARASURAMAN, A. 1996. The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60, 31-46.
- ZEITHAML, V. A., PARASURAMAN, A. & BERRY, L. L. 1985. Problems and Strategies in Services Marketing. *Journal of Marketing*, 49, 33-46.