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# *How to Calculate the Value of a Customer*

## Measuring customer satisfaction: A platform for calculating, predicting and increasing customer profitability

Received (in revised form): 30th November, 2001

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**Abstract** In most industries, companies are facing an ever-increasing level and intensity of competition, as well as a rapid evolution of the market environment. Under these conditions, the analysis and management of customer profitability becomes a key issue in securing the long-term success of the business. This paper proposes a model for calculating, predicting and increasing customer profitability, based on the measurement of customer satisfaction in real market conditions. The methodology brings together, in a coherent framework, a number of concepts that have proliferated in the marketing world, including customer lifetime value, customer segmentation, customer loyalty and data mining. The paper explores also the necessity of designing and implementing effective marketing-mix strategies targeted to the high-value, loyal customers, and the implications of this approach at managerial and organisational level.

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### **INTRODUCTION**

In the present economic environment, characterised by technological dynamism and intensive competition, the problems

of customer retention and customer profitability have become paramount for the success of any business. As organisations in every industry have

reached out to grow their business through the use of advanced processes and technology, they have shifted their focus from being 'productcentric' to being 'customercentric'.<sup>1</sup> Understanding customer behaviour and profitability and leveraging this information to manage customers more effectively is the key to creating a competitive advantage in the new economy.

In a number of industry sectors, companies are facing rapidly changing business environments. If not recognised and responded to effectively, this may result in increased pressure of work, lost revenue opportunities, increased costs and, ultimately, in increased levels of customer dissatisfaction, relative to the competition.<sup>2</sup> When customer dissatisfaction sets in, and the competition catches up, the nature of the trading relationship between buyer and seller needs to change before it collapses.

As a result of promoting change for the benefit of both parties, the power base in the company–customer relationship will inevitably change. The customer can no longer be considered as simple prey for the powerful multinational corporations, but rather as a partner in a long-term relationship characterised by a win:win situation.

The companies which move most urgently towards customer profitability management are those which recognise that there is a misalignment between customer needs and wants and what the seller wants to do, or is able to do, at an acceptable price. Some companies proactively respond to manage the impact of this situation but others only react when the conflict or crisis has arisen. In reality the crisis catalyst is only a matter of time if the customer interface and its satisfaction levels are not being managed effectively.

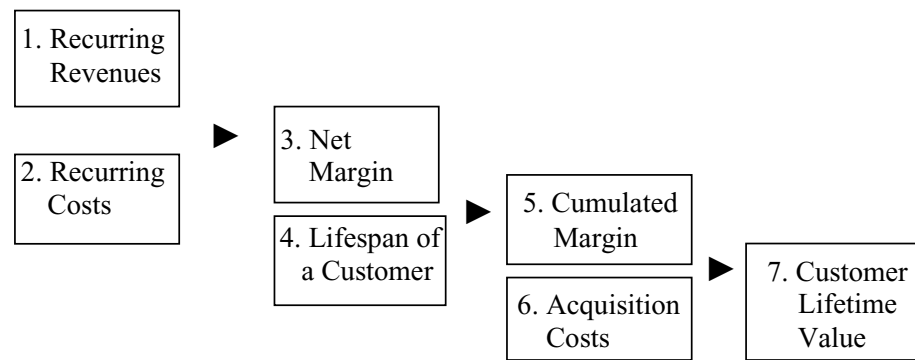
## THE RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND CUSTOMER PROFITABILITY

The relationship between customer satisfaction and business profitability was extensively investigated and described in the specialised business literature. Both service management and marketing literature propose that customer satisfaction influences customer loyalty, which in turn affects profitability.<sup>3–17</sup> Statistically-driven examination of the links between satisfaction, loyalty and profitability has been initiated by Nelson *et al.*<sup>18</sup> who demonstrated the relationship of customer satisfaction to profitability among hospitals, and Rust and Zahorik,<sup>19</sup> who examine the relationship of customer satisfaction to customer retention in retail banking. The Bank Administration Institute has also explored these ideas, in particular Roth and van der Velde.<sup>20,21</sup>

The specialists argue that customer satisfaction is the result of a customer's perception of the value received in a transaction or relationship — where value equals perceived service quality relative to price and customer acquisition costs<sup>22,23</sup> — relative to the value expected from transactions or relationships with competing vendors.<sup>24</sup> Loyalty creates increased profit through enhanced revenues, reduced costs to acquire customers, lower price sensitivity, and decreased costs to serve customers familiar with a firm's service delivery system.<sup>25</sup>

Taking these studies into consideration, it can be assumed that:

- customer satisfaction measurement can provide a good basis for calculating, predicting and improving customer profitability
- customer satisfaction has to be investigated and evaluated in a real-life situation, considering the



**Figure 1** Seven step process to measure customer lifetime value<sup>31</sup>

competitive offers on the market; this analysis is as important for the acquisition of new customers, as for the retention of the existing ones.

In spite of the increasing evidence regarding the positive relation between customer satisfaction and business results,<sup>26</sup> no clear models have been proposed for the evaluation of this influence at microeconomic level. A study conducted by the Juran Institute<sup>27</sup> has shown that only 2 per cent of the surveyed managers are able to measure and stress the financial impact resulting from increased customer satisfaction levels. This paper attempts to introduce and describe a possible method for calculating customer profitability in relation to the level of perceived satisfaction in a competitive market environment.

## CUSTOMER LIFETIME VALUE

In calculating customer profitability, most methods start from customer lifetime value. Customer lifetime value (CLV) is a controversial concept among business specialists. Some consider it 'an elaborate fiction of presumed precision',<sup>28</sup> while other analysts declare that companies should abandon lifetime value theories

and take care of customers now.<sup>29</sup>

In mathematical terms, CLV consists in taking into account the total financial contribution, ie revenues minus costs, over the entire life of a customer's business relationship with a company. Despite its simplicity, the measurement of CLV requires great care. All cash flows involved in the process have to be identified and measured on a very detailed level, and allocated precisely to each customer or type of customer. Figure 1 represents a concise seven-step approach to measuring CLV.<sup>30</sup>

Translating Figure 1 into mathematical formulae:

$$CLV = (RR - RC) \times Y - AC \quad (1)$$

$$P = CLV \times C \quad (2)$$

$$P = [(RR - RC) \times Y - AC] \times C \quad (3)$$

where CLV = customer lifetime value (profitability); RR = recurring revenues; Y = lifespan of a customer, or number of transactions; RC = recurring costs; AC = acquisition costs; P = total profits; C = number of customers.

The mathematical expression of the CLV can represent a sound basis for analysing the existing situation, and for identifying possible strategies to increase customer profitability. Analysing formula (3), five levers of customer value creation

**Table 1:** The operational requirements for implementing customer-oriented strategies based on customer lifetime value analysis

Strategy	Tactics	Operation	Requirements
Increase the number of customers (C)	Improve the existing offer in order to attract potential customers close to the existing customer segments	Improve: product price distribution promotion	Research Segmentation Investment
	Diversify the offer in order to attract new segments of customers	Increase the product/service portfolio	Research Segmentation Investment
Increase recurring revenues (RR)	Increase the volume of sales	Diversification Stimulate demand	Research Segmentation Investment
	Increase the value of sales	Upgrade the offer	Research Segmentation Investment
	Increase both the volume and value of sales	Diversification Stimulate demand Upgrade the offer	Research Segmentation Investment
Reduce recurring costs (RC)	Reduce general costs (administration, maintenance, etc.)	Increased efficiency	Research Segmentation Investment
	Reduce the cost of: product/service distribution communication	Cheaper supplies Cheaper outsourcing Increased efficiency	Research Segmentation Investment
Retain and increase the lifespan of a customer or number of transactions (Y)	Increase customers' loyalty by maintaining and/or increasing customer satisfaction	Improve present offer Better targeting Score better than the competition	Research Segmentation Investment
Reduce acquisition costs (AC)	Better targeting of potential customers	Improve offer Improve targeting Use the same resources more efficiently	Research Segmentation Investment

can be identified.<sup>32</sup> These strategies represent only the starting point of a company-wide operational effort. Table 1 shows the complexity of implementing customer-oriented strategies based on the analysis of the CLV.

— the problems raised by the CLV analysis are often industry and company specific, as a result the company has to select the most appropriate way to apply this concept in its particular situation.

## PROBLEMS IN CALCULATING CUSTOMER LIFETIME VALUE

The calculation of the CLV is not problem free. Most of these problems, however, can be successfully solved if two main issues are taken into consideration:

— the company applying this method has to define clearly from the beginning the purpose of using CLV analysis and the expected benefits

### Defining a 'customer'

The first challenge is to define the customer unit.<sup>33</sup> Is it an individual, an account, a household or a business address? A second challenge is linking customer information into a single customer record when they leave and return multiple times during their lifetime.

The answer to these questions is industry specific. The business organisation has to identify the

**Table 2:** The characteristics of customer relationships in different industrial markets

Number of customers	Number of transactions	Level of involvement
Large Medium Small	Large Medium Small	High Medium Low

characteristics of its customer relationship, and, on this basis, to define the customer unit and the customer lifetime cycle. In the present marketplace, a company can be confronted with the situations characterised in Table 2.

Table 2 shows the 27 possible combinations of customer relationship characteristics which differ between industrial sectors and even between companies within the same industry. For example, a company with a small number of customers, which makes a small number of transactions that require a high level of company–customer involvement, will probably define the customer unit as being single customers (individuals or organisations), and the customer lifecycle as depending on the business cycles specific for the industry (production cycle, investment cycles, consumption cycles). On the other hand, for a company dealing with a large number of clients, with large number of transactions and low involvement, it might be more appropriate to aggregate individual customers into particular segments with homogeneous profiles and behaviour. On the basis of these considerations proposition 1 can be formulated:

Proposition (1): The calculation of customer profitability is industry specific.

### Evaluating costs

The measurement of cost to the customer level poses the greatest challenge to customer lifetime value measurement.<sup>34</sup> While revenue can

usually be collected by customer from the appropriate billing system, cost information is aggregated into general ledger departments and accounts and requires a good deal of analysis and disaggregation before it can meaningfully be attached to individual customers or customer segments. The indirect costs are especially difficult to be divided and allocated. In solving these problems, three key costing principles should be applied:<sup>35</sup>

- customer costs must be related to the revenues they generate
- not all costs within the organisation should be attributed down to a customer level
- it should be made absolutely clear who can influence different types of cost and revenues.

Proposition (2): The evaluation and distribution of costs should be made in connection with the level of profitability of different customer segments.

### Evaluating the duration of customer loyalty

The duration of customer–business relationships is difficult to measure in the present economic environment, characterised as it is by unpredictability and rapid change.<sup>36</sup> Many companies are using as the main predictive tool the analysis of historical data about the past behaviour of their customers, identifying specific segments and extrapolating the behaviour of these segments into the future. This method can be used successfully only in relatively stable

market environments because it assumes that:

- customers will repeat their past behaviour in the future
- market conditions will not change significantly.

The method is, however, completely useless in dynamic, fast-changing environments, such as the high-technology industries. In such sectors, customers' needs and perceptions change fast, competition is intense and market conditions fluctuate widely.<sup>37</sup>

It is therefore important to connect these predictions with the external market environment. Many CLV/profitability models neglect the external environment of the firm, and concentrate only on the relation between the organisation and its customers.<sup>38–41</sup> It is, however, dangerous to forget that this relation does not take place in a marketing void. Market conditions might, and indeed do, change over time, impacting on organisations' policies and on customer needs and perceptions.

Proposition (3): Customer Lifetime Value has to be calculated taking into consideration the real conditions of the market environment.

The duration and intensity of customers' loyalty is determined and influenced by customer satisfaction.<sup>42–46</sup> It can be assumed that as long as a company's offer satisfies a customer's need, that customer will be loyal to the firm. The measurement of customer satisfaction can therefore provide a platform for calculating, predicting and increasing customer profitability.

Proposition (4): The duration and intensity of customers' loyalty is determined and influenced by customers' level of satisfaction.

### Measuring customer satisfaction: a possible solution for calculating, predicting and increasing customer profitability

Evaluating the perceived satisfaction of customers in relation to different existing offers, it can be considered that the acquisition of new customers is successful when:

$$PS > PSC \quad (4)$$

PS = perceived satisfaction with the company offer; PSC = perceived satisfaction of competitors' offers (or of the best competitor's offer).

In the case of existing customers it can be considered that PSC has to be bigger than PS in order to determine customer's defection, since, all elements being equal, the previous relationship (familiarity) with an organisation will create a retention effect on customer's behaviour. On the other hand, the start of a relationship with a new supplier is often perceived by the customer to imply additional costs (switching costs)<sup>47</sup>:

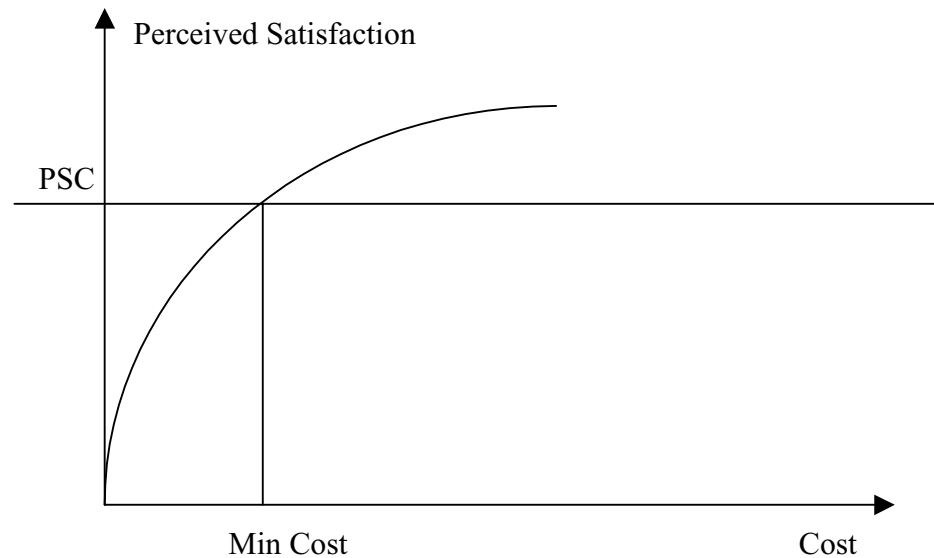
$$PS \exists PSC \quad (5)$$

In order to evaluate customer profitability it is necessary to find the relationship between cost (minimum) and revenues (maximum), considering the real market conditions (perceived customer satisfaction). Representing the relationship between costs and customer satisfaction graphically (Figure 2), the necessary costs for acquiring new customers can be easily identified, taking into consideration formula (4).

$$AC > \text{Min Cost} \quad (6)$$

Applying the same method to formula (5), the minimum cost necessary for customer retention can be found:

$$RC \exists \text{Min Cost} \quad (7)$$



**Figure 2** The relationship between the levels of perceived satisfaction and costs

In order to predict the revenues obtained by the company, the relationship between cost, revenues and customer satisfaction can be further represented graphically (see Figure 3). This method can help companies predict the necessary costs for obtaining a certain level of revenue, and finally, the profitability of a particular segment of customers (with a specific satisfaction profile).

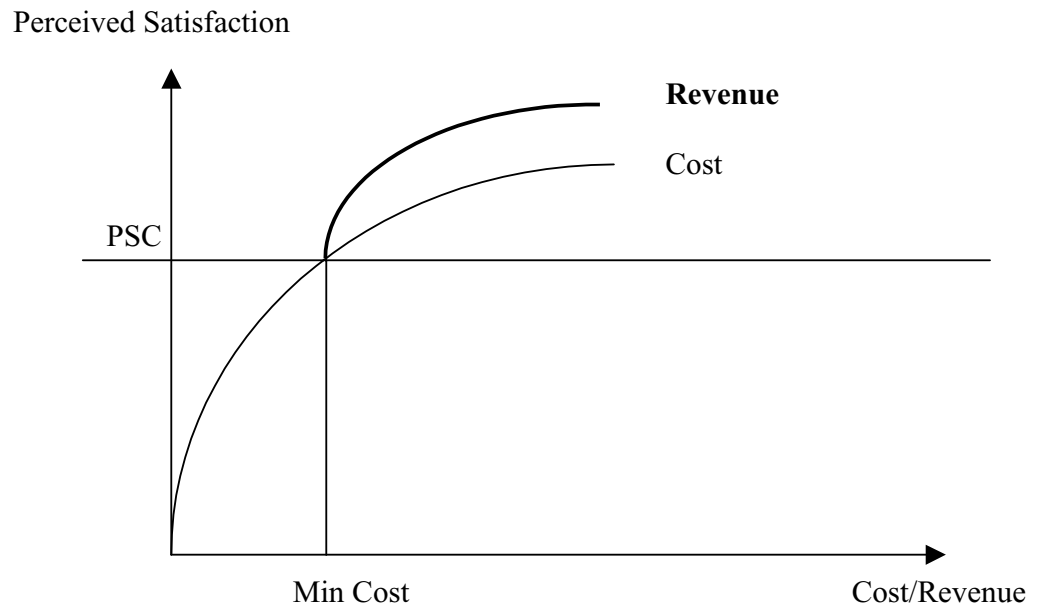
Figure 3 is only an arbitrary example. In reality, the graphical representation of the relationship between cost, revenue and satisfaction can be very different. For example, it is possible that, in the case of some clients/customer segments, the costs to achieve a necessary level of customer satisfaction are larger than the potential revenues. In such a case that particular client/customer segment would be considered unprofitable and eliminated from the company's target market (see Figure 4).

In this way, the organisation can significantly simplify the research process, focusing on the correlation between cost, revenue and perceived satisfaction (both

in relation to its own offer and to competitors' offers). The research costs will represent a part of the total cost represented in the graph.

The authors consider customer profitability to be a more accurate concept than customer lifetime value. The lifetime expression creates pressure to predict the duration of the entire company–customer relationship, which is almost impossible considering market dynamics. The only possibility is to extrapolate the results of historical data, which sometimes are non-existent and sometimes inaccurate because they refer to past market conditions. In these conditions, most companies use a three to five-year interval as a prediction horizon.<sup>48</sup>

The measurement of customer profitability focuses on the level of satisfaction of specific segments of existing or potential customers. The concept is more accurate and complex because it takes into consideration the dynamics of the market environment and its influence on customers' needs and perceptions. The



**Figure 3** The relationship between the levels of perceived satisfaction, costs and revenues

company–customer relationship can be considered to last as long as the existing customer is more satisfied with the company’s offer than with competitors’ offers. The same holds for potential customers becoming customers of the organisation. Evaluating exiting market conditions (general characteristics, the structure of customer needs and the intensity of competition), as well as existing trends, simulation models can be created to predict the future situation in terms of cost, revenue, customer segments and customer satisfaction.

## POSSIBLE CRITICISMS OF THE SATISFACTION–PROFITABILITY MODEL

### Defection of satisfied customers

There is empirical evidence that even satisfied customers defect,<sup>49–51</sup> for a number of different reasons.<sup>52</sup> In order to understand the real danger of this tendency it is important to analyse and

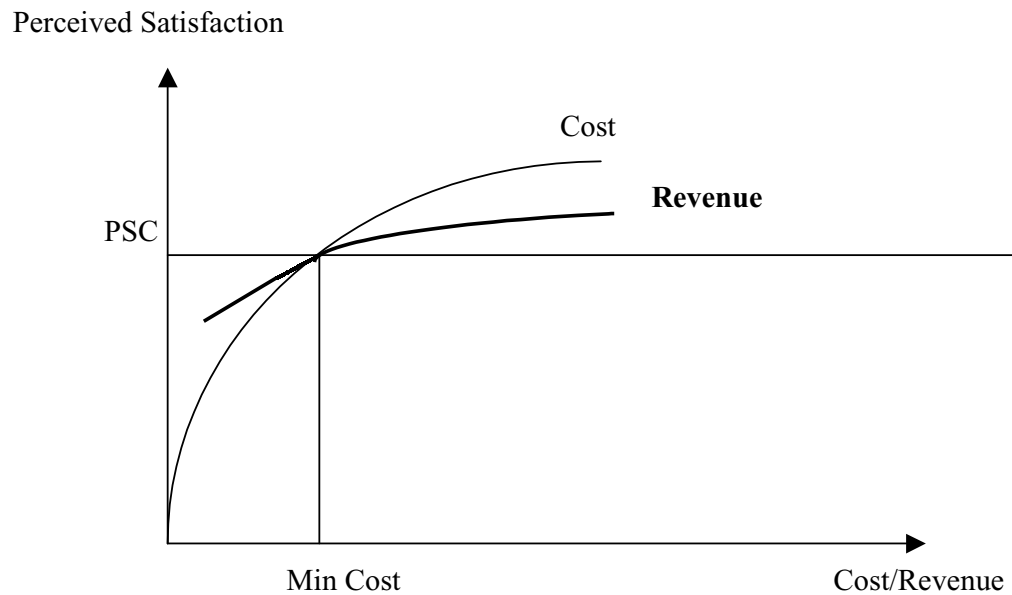
differentiate among (1) different categories of customers and (2) different industrial sectors. Hughes<sup>53</sup> differentiates between two categories of customers:

- transaction buyers: focused on price, low loyalty level
- relationship buyers: focused on trustful, long-term business relationship, high loyalty level.

Understanding the differences between these two categories of customers, coupled with an accurate market segmentation, can provide the company with a powerful competitive strategy. The company can either choose to concentrate on only one of these customer groups, implementing a focused marketing-mix strategy, or to take advantage of both segments, differentiating its offer and marketing operations accordingly.

On the other hand, the size and the occurrence of these two customer





**Figure 4** The relationship between the levels of perceived satisfaction, costs and revenues for an unprofitable segment of customers

categories is probably sector specific. Considering the possible combinations of customer relationships presented in Table 2, the industries characterised by a large number of customer, doing a large number of transactions and requiring a low level of involvement will have a higher propensity to have a large proportion of transaction customers than the sectors with a concentrated (small number of customers), highly relational (high involvement) market. The fact that the paper identifying the main reasons for customer disloyalty analyses the situation in the retail grocery sector is extremely relevant.<sup>54</sup>

Even in industries characterised by a high customer turnover, the satisfaction profitability model can be successfully applied because it takes into consideration not only customer retention, but also customer acquisition. If the perceived satisfaction of the customer in relation to the company's offer is higher than the perceived satisfaction in relation to a competitors'

offer, high customer turnover is likely to be in favour of the company. It is possible that even defecting customers will return, when the effect of random preferences dissipates.

Another possible source of error is the way satisfaction and a satisfied customer are defined by the firm. If the company is not aware of customers' real needs and wants, the criteria for measuring satisfaction will be biased from the start.<sup>55</sup>

#### **Satisfied customers are not always profitable**

Some specialists argue that a growing number of companies have discovered that improved satisfaction scores do not necessarily translate into increased profits, bottom-line results have even deteriorated. A direct relationship between satisfaction and sales could not be proven in all cases.<sup>56</sup>

Considering Figures 3 and 4 once more and the relation between cost, revenue and satisfaction, it is quite

possible to induce increased satisfaction without obtaining higher profits, or indeed any profit at all. Cost–revenue–satisfaction profiles have to be built for each targeted customer segment. The main objectives of the organisation are not only to increase customer satisfaction, but also the more efficient use of funds, the costs being an essential element in the calculation of customer profitability.

#### **Difficult/costly measurement of satisfaction levels**

Both the service management and the marketing literatures suggest that there is a strong theoretical underpinning for an empirical exploration of the linkages between customer satisfaction, customer loyalty and profitability.<sup>57</sup> The relatively small quantity of empirical research performed on these relationships<sup>58</sup> is probably the result of the paucity of organisations measuring ‘soft’ issues, eg customer satisfaction and customer loyalty, in meaningful ways. These problems have determined a trend towards the formalisation of customer satisfaction.<sup>59</sup> There is a broad technical literature concerned with such issues as:

- developing different concepts of customer satisfaction which can be evaluated<sup>60</sup>
- designing effective customer satisfaction data collection and reporting systems, varying in sophistication<sup>61</sup>
- adopting methods for institutionalising customer satisfaction measurement into organisational control systems<sup>62</sup>
- developing systems for responding effectively to customer dissatisfaction and customer complaints.<sup>63</sup>

Customer satisfaction is a multidimensional subject.<sup>64</sup> Normally a diverse set of criteria called ‘quality

drivers’ is used to explain customers’ satisfaction or dissatisfaction in multiattribute measurement approaches. The measurement and comparison of customers’ satisfaction was considered so important that national or international organisations have tried to define and apply standardised customer satisfaction barometers. There are national indices in the USA (the American customer satisfaction index, ACSI),<sup>65</sup> established in 1994; in Sweden (the Swedish customer satisfaction index, SCSi),<sup>66</sup> established in 1989; and in Germany (Deutsche Kundenbarometer, DK),<sup>67</sup> established in 1991. A European Customer Satisfaction Index was implemented at the beginning of 1999, aggregating a number of national customer satisfaction indexes.<sup>68</sup> These measurement methodologies are highly complex and sophisticated, analysing both the general perceptions customers have about a company, product or service, as well as their attitudes towards diverse analytical components of the object under investigation. The competitive/comparative dimension is also included in these scales, though a number of questions remain regarding the intention to switch to a competitor, or about the comparison of the existing company with an ideal organisation.<sup>69</sup>

As can be seen, companies wishing to measure their customers’ satisfaction can choose from a variety of analytical models. In countries that have implemented a standardised customer satisfaction index it might even be possible to access official statistics permitting direct comparisons with competitors.

Finally, companies concerned about the costs of such investigations, can use a general satisfaction index, asking respondents to evaluate the degree of satisfaction in relation to a specific product/service. This index will be

accurate enough as long as it is also applied to non-customers, and includes customer satisfaction relative to competitors, offering a base for comparisons.<sup>70</sup>

**Difficulty and cost of measuring and predicting the relation between customer satisfaction and costs/revenues for a particular product or service**

Both the evaluation of costs and selling prices in relation to a new product or service represent standard research procedures for many companies.<sup>71</sup> The additional element, customer satisfaction, can be easily integrated into these studies. Nor does the measurement of customer satisfaction regarding a competitive offer raise any difficult issues, comparative marketing tests being used intensively to identify and assess the competitive position of different products or services in the market.

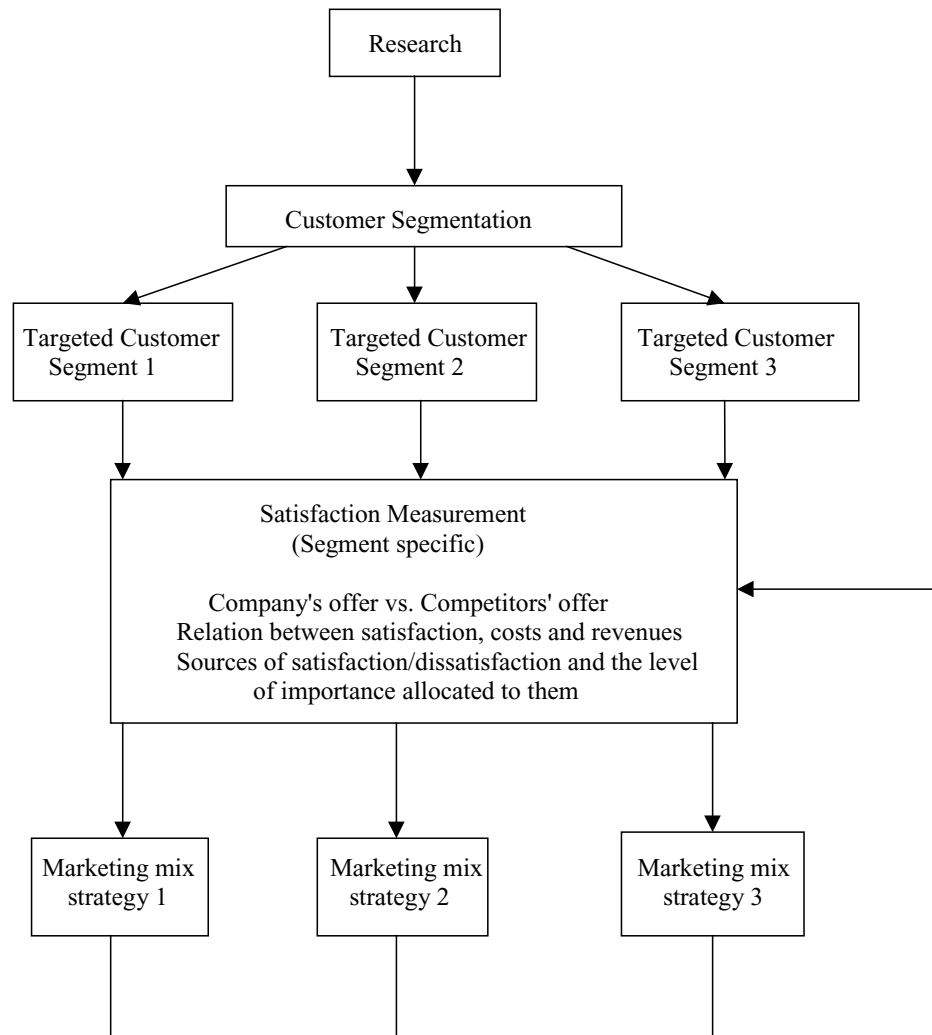
The main problem is with the capacity to predict the future level of customer satisfaction. This is not necessarily a disadvantage however. In comparison with customer lifetime value, the concept of customer profitability takes into consideration the competitive evolution of the market. A company would therefore have to invest in market research projects, studying its customers, their needs and wants, the competition, existing offers and the perceptions and attitudes of the general public.<sup>72</sup> Even if these research projects could be realised at specific moments in time, the firm's information systems would have to be permanently engaged in scanning the competitive environment, identifying trends and predicting sectorial evolution. This would improve the firm's knowledge base, allowing for a more accurate and faster decision-making process, and consequently, increasing the strategic competitive advantage of the

firm, as well as its capacity to correctly identify and react to the changing market environment.

Probably the most appropriate form of market research that can be used to collect data regarding the connection between customer satisfaction and profitability is the panel.<sup>73</sup> Using a panel, comparative data from the sampling units can be collected on several occasions. The panels can be made up of individuals, households or firms. Continuous research services, however, demand considerable investment in back-up facilities such as specialised staff, computers and database management, and because of this the retail audits and panels are usually organised and conducted by large research organisations. Typical organisations are ACNielsen (Homescan) and Taylor Nelson Sofres (Superpanel and Family Food Panel).<sup>74</sup> Other market research agencies are specialised in panels designed for a particular market (children's market, agricultural market, motorists, etc.).

**USING CUSTOMER SEGMENTATION AND SATISFACTION MEASUREMENT TO IMPLEMENT SUCCESSFUL MARKETING MIX STRATEGIES**

The key to understanding the profitability of a specific customer and to applying the most appropriate customer management strategy is segmentation.<sup>75</sup> Business organisations should aim at adopting a simple and operational segmentation methodology that can be readily used by operational managers and that can discriminate sufficiently by customer value.<sup>76</sup> The selected segmentation dimensions should discriminate either on the revenue side (eg usage intensity and behaviour), or on the cost side (eg products purchased, channel used, intensity of customer care



**Figure 5** The use of customer segmentation and customer satisfaction measurement for designing and implementing targeted marketing mix strategies

usage and service levels. This way the company can have a complete mapping of the ‘wells’ of value creation and ‘pits’ of value destruction of the business and an understanding of why they are such.

Making clear connections between customer behaviour and customer demographic profiles is critical for a company interested in keeping customers and increasing their profitability. The implementation of an efficient profiling/segmentation methodology has to address the following issues:<sup>77,78</sup>

- robust transaction data, properly collected and updated
- data warehousing capabilities for capturing and storing the data (databases)
- an associated retrieval and data delivery system
- data mining tools that reflect the unique nature of the business
- detailed costing information, including the process cost, as well as the physical product or service cost
- a meaningful business model that

represents clearly the company–customer interaction and the fluctuation of customers' and businesses' lifecycles.

The satisfaction measurement has to be specific for each targeted customer segment of the company. The needs and wants of different customer segments are usually different, as are the quality standards regarding the offered products and services.

Not only do organisations need to benchmark their results after the completion of the customer survey, but they also have to evaluate the process they used to obtain these results. Such data must be as accurate as possible, especially if staff bonuses or other incentives are triggered by achieving satisfaction improvement targets.<sup>79</sup> It is also important to disseminate the results of customer satisfaction measurement to all organisational levels. Little action will be taken to improve customer satisfaction if employees do not know enough about these results or their implications.<sup>80</sup> In addition, the extent of feedback provided to employees will also send messages about how important the customer survey is to the organisation.

A thorough research of the specific sources of customer satisfaction/dissatisfaction and of the importance allocated to them by customers, will indicate the areas of excellence/necessary improvement in company's strategy (Figure 5). On the basis of this research, a marketing mix strategy targeted at specific customer segments can be designed and implemented.

As companies shift from a traditional product focus to a customer focus, customer relationship management represents a fundamental change which affects virtually every aspect of an organisation. This includes its business

strategies and operating processes, application and technology infrastructure, management and organisational structures, and sometimes even its culture. To achieve successful customer relationship management, organisations must foster behaviours and implement processes and technologies that support coordinated customer interactions throughout every customer touch point. This process often includes new ways of:

- marketing to and caring for customers
- establishing sales channels tailored appropriately to customers
- establishing a partner community centred around common customers
- fostering innovation and collaboration with the aim of improving customer service and loyalty
- investing in the creation, capture and dissemination of customer knowledge within the organisation, among partners, and potentially with customers
- leveraging information technology to enable the transformed practices mentioned above.

Customer profitability provides a sound basis for decision making regarding investments and strategies for each of these. Through the ability to understand and segment customers based on value, companies will be better equipped to develop customer management strategies that focus on:

- directing marketing and sales resources toward those customers who create the greatest value
- enhancing loyalty programmes that help retain high-value customers
- modifying customer service activities for low-value customers
- increasing customer service activities for high-value customers

- developing service pricing distinct from product pricing.

The main effects of these operations of better segmentation, targeting and customer relationship management will be the improvement of customer satisfaction, a better focus of company's resources and an increase in customer loyalty and profitability.

## CONCLUDING REMARKS

This paper proposes a simple model of connecting customer profitability management with the real situation of competitive markets, through customer satisfaction measurement. This model has value particularly for highly dynamic industrial sectors, in which the use of historical data for predicting future customer behaviour is inaccurate. Four propositions have also been formulated in connection with the application of the proposed model of customer profitability:

- Proposition (1): the calculation of customer profitability is industry specific
- Proposition (2): the evaluation and distribution of costs should be made in connection with the level of profitability of different customer segments
- Proposition (3): the customer lifetime value has to be calculated taking into consideration the real conditions of the market environment
- Proposition (4): the duration and intensity of customers' loyalty is determined and influenced by customers' level of satisfaction.

The application of this model is far from easy. Careful and continuous customer research and market scanning are necessary for its successful implementation as well as an accurate

evaluation of the organisational structure and processes. In today's economy, the key marketing skills are still necessary and valid; they must, however be complemented and supplemented in a number of important areas. These complementary key skills include:

- customer profitability modelling: it is necessary to understand the key drivers of customer profitability and the likely impact on customer value of changes in the marketing mix
- prediction: using techniques such as CHAID and regression, the strength and nature of relationships between events and customer attributes can be identified in order to predict behaviours such as purchase, referral, renewal, lapsing, etc.
- clustering: cluster analysis can be used to group customers, or prospects, with similar characteristics or attitudes. This enables significant segments of customers to be identified for which relevant propositions and communications can then be developed
- measurement and monitoring systems: in order to develop profitable new customer propositions for different customer segments, it is essential that the means to monitor their effectiveness are established. This requires the design of appropriate measures, including the return on investment, and systems necessary to deliver timely and accurate information
- design and analysis of tests: ideally, a new idea should be tested on a sample of the customer or prospect base before implementing it. Therefore, the design of statistically valid tests and the development of appropriate analytical tools to aid their interpretation is yet another critical skill.

From the managerial perspective it is

extremely important to implement within the organisation an effective system of segmenting the market, evaluating the profitability of different segments of customers, and measuring the relationship between satisfaction, profitability and loyalty on a regular basis. Research studies such as panel surveys should either be organised by the company, or carried out by specialised market research agencies. On the basis of the research findings, the company has to design and implement well-targeted marketing mix strategies, differentiating between high-profitability, loyal customers, and low-value, opportunistic clients. These operations should change fundamentally the company focus, from a product and distribution approach to a customer-centred approach. The design of a complex customer relationship management model has to take into consideration, and to modify, all aspects of the organisation, including the organisational culture, structure and operations.

Customer profitability analysis, if managed effectively, can deliver improved profitability and a greater return on investment by:

- targeting acquisition activities at those prospects with the greatest potential lifetime value
- developing stronger and more profitable relationships with existing customers
- ensuring that scarce financial and staff resources are allocated to those customers with proven value or potential.

## References

- 1 Harper, D. and Schmarzo, W. (1999) 'Making every customer relationship count: Exploring the business drivers and technology enablers of customer relationship management', [www.crm-forum.com/crm\\_vp/mecrc/sld01.htm](http://www.crm-forum.com/crm_vp/mecrc/sld01.htm).
- 2 Connolly, T. and Ashworth, G. (1994) 'Managing customers for profit', *Management Accounting*, Vol. 72, No. 4, pp. 34–40.
- 3 Anderson, E. W. and Fornell, C. (1994) 'A customer satisfaction research prospectus', in Rust, R. T. and Oliver, R. (eds), 'Service quality: New directions in theory and practice', Sage Publications, Thousand Oaks, CA, pp. 241–268.
- 4 Edvarsson, B., Johnson, M. D., Gustafsson, A. and Strandvik, T. (2000) 'The effects of satisfaction and loyalty on profits and growth: Product versus services', *Total Quality Management*, Vol. 11, No. 7, pp. 917–928.
- 5 Gummesson, E. (1993) 'Quality management in service organizations: An interpretation of the service quality phenomenon and a synthesis of international research', International Service Quality Association, Karlstad, Sweden.
- 6 Hallowell, R. (1996) 'The relationships of customer satisfaction, customer loyalty, and profitability: An empirical study', *International Journal of Service Industry Management*, Vol. 7, No. 4, pp. 27–42.
- 7 Heskett, J. L., Sasser, W. E. and Hart, C. W. L. (1990) 'Breakthrough Service', The Free Press, New York, NY.
- 8 Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E. Jr. and Schlesinger, L. A. (1994) 'Putting the service profit chain to work', *Harvard Business Review*, March–April, pp. 105–111.
- 9 Page, M., Pill, L. and Berthon, P. (1996) 'Analysing and reducing customer defections', *Long Range Planning*, Vol. 29, No. 6, pp. 821–834.
- 10 Reichheld, F. F. and Sasser, W. E. Jr (1990) 'Zero defections comes to services', *Harvard Business Review*, September–October, pp. 105–111.
- 11 Reichheld, F. F., Markey, R. G. Jr. and Hopton, C. (2000) 'The loyalty effect — the relationship between loyalty and profits', *European Business Journal*, Vol. 12, No. 3, pp. 134–141.
- 12 Rust, R. T., Zahorik, A. J. and Keiningham, T. L. (1995) 'Return on quality (ROQ): Making service quality financially accountable', *Journal of Marketing*, Vol. 59, No. 2, pp. 58–70.
- 13 Schneider, B. and Bowen, D. E. (1995) 'Winning the service game', HBS Press, Boston, MA.
- 14 Söderlund, M. and Vilgon, M. (1999) 'Customer satisfaction and links to customer profitability: An empirical examination of the association between attitudes and behavior', *SEE/EFI Working Paper Series in Business Administration*, No. 1, January, [http://swoba.hhs.se/hastba/abs/hastba1999\\_001.htm](http://swoba.hhs.se/hastba/abs/hastba1999_001.htm).
- 15 Storbacka, K., Strandvik, T. and Grönroos, C. (1994) 'Managing customer relationships for profit: the dynamics of relationship quality', *International Journal of Service Industry Management*, Vol. 5, No. 5, pp. 21–38.
- 16 Yi, Y. (1990) 'A critical review of consumer satisfaction', in Zeithaml, V. (ed.), 'Review of marketing, 1990', American Marketing Association, Chicago, IL, pp. 68–123.
- 17 Zeithaml, V., Parasuraman, A. and Berry, L. L.

- (1990) 'Delivering quality service', The Free Press, New York, NY.
- 18 Nelson, E., Rust, R. T., Zahorik, A. J., Rose, R., Batalden, P. and Siemanski, B. A. (1992) 'Do patient perceptions of quality relate to hospital financial performance', *Journal of Health Care Marketing*, December, pp. 42–49.
- 19 Rust, R. T. and Zahorik, A. J. (1991) 'The value of customer satisfaction', Working Paper, Vanderbilt University.
- 20 Roth, A. and van der Velde, M. (1990) 'Retail banking strategies: Opportunities for the 1990s', Bank Administration Institute, Chicago, IL.
- 21 Roth, A. and van der Velde, M. (1991) 'Customer perceived quality drives retail banking in the 1990s', *Bank Management*, November, pp. 29–35.
- 22 Heskett, Sasser and Hart (1990) *op. cit.*
- 23 Blanchard, R. F. and Galloway, R. L. (1994) 'Quality in retail banking', *International Journal of Service Industry Management*, Vol. 5, No. 4, pp. 5–23.
- 24 Zeithaml, Parasuraman and Berry (1990) *op. cit.*
- 25 Reichheld and Sasser (1990) *op. cit.*
- 26 Chambers, J. (2000) 'Customer satisfaction at Cisco Systems', [www.tdmktg.com/resources.html](http://www.tdmktg.com/resources.html).
- 27 Juran Institute (1995) 'Can't get no satisfaction? Perhaps you should stop trying', Wilton, Juran Institute.
- 28 Jackson, D. R. (1992) 'In quest of the Grail: Breaking the barriers to customer valuation', *Direct Marketing*, Vol. 54, No. 11, p. 44–48.
- 29 Ambler, T. (2001) 'Abandon lifetime value theories and take care of customers now', *Marketing*, 12th July, p. 18.
- 30 Bacuvier, G., Peladeau, P., Trichet, A. and Zerbib, P. (2001) 'Customer lifetime value: Powerful insights into a company's business and activities', [http://www.bah.com/viewpoints/insights/cmt\\_clv\\_2.html](http://www.bah.com/viewpoints/insights/cmt_clv_2.html).
- 31 *Ibid.*
- 32 *Ibid.*
- 33 Ness, J. A., Schroeck, M. J., Letendre, R. A. and Douglas, W. J. (2001) 'The role of ABM in measuring customer value', [www.mamag.com/strategicfinance/2001/03f.htm](http://www.mamag.com/strategicfinance/2001/03f.htm).
- 34 Smith, M. and Dikolli, S. (1995) 'Customer profitability analysis: An activity-based costing approach', *Managerial Auditing Journal*, Vol. 10, No. 7, pp. 3–7.
- 35 Connolly and Ashworth (1994) *op. cit.*
- 36 Forsyth, R. (2001) 'Re-evaluating CRM cliches: Customer lifetime value', CRM-Forum, [www.crm-forum.com](http://www.crm-forum.com).
- 37 Andre, M. M. and Saraiva, P. M. (2000) 'Approaches of Portuguese companies for relating customer satisfaction with business results', *Total Quality Management*, Vol. 11, No. 7, pp. 929–940.
- 38 Cody, D. (2000) 'Analytical CRM: Increasing lifetime customer value through prediction', [www.serverworldmagazine.com/sunserver/2000/12/analytical.shtml](http://www.serverworldmagazine.com/sunserver/2000/12/analytical.shtml).
- 39 Howard, S. (2001) 'How customer lifetime value can drive your marketing efforts', [www.receptive.com/only/taurusdm/plan/dmb\\_articles/lifetimevalue.html](http://www.receptive.com/only/taurusdm/plan/dmb_articles/lifetimevalue.html).
- 40 Hughes, A. M. (2001a) 'Building successful retail strategies using customer lifetime value', [www.dbmarketing.com/articles/Art181.htm](http://www.dbmarketing.com/articles/Art181.htm).
- 41 Strategic Database Marketing (1994) 'Augmenting customer lifetime value', [www.bradyc.com/cre5html](http://www.bradyc.com/cre5html).
- 42 Hallowell (1996) *op. cit.*
- 43 Reichheld, Markey and Hopton (2000) *op. cit.*
- 44 Andre and Saraiva (2000) *op. cit.*
- 45 Reichheld, F. F. (1996) 'The loyalty effect', Harvard Business School Press, Harvard.
- 46 Scharitzer, D. and Kollarits, H. C. (2000) Satisfied customers: profitable customer relationships: pharmaceutical marketing: how pharmaceutical sales representatives can achieve economic success through relationship management with settled general practitioners—an empirical study', *Total Quality Management*, Vol. 11, No. 7, pp. 955–966.
- 47 Jones, M. A., Mothersbaugh, D. L. and Sharon E. B. (2000) 'Switching barriers and repurchase intentions in services', *Journal of Retailing*, Vol. 76, No. 2, pp. 259–274.
- 48 Forsyth (2001) *op. cit.*
- 49 Juran Institute (1995) *op. cit.*
- 50 Andre and Saraiva (2000) *op. cit.*
- 51 Scharitzer and Kollarits (2000) *op. cit.*
- 52 McGoldrick, P. J. and Andre, E. (1997) 'Consumer misbehaviour: Promiscuity or loyalty in grocery shopping', *Journal of Retailing and Customer Service*, Vol. 4, No. 2, pp. 73–81.
- 53 Hughes, A. M. (2001b) 'Why customers leave, and what you can do about it', [www.dbmarketing.com/articles/Art142.htm](http://www.dbmarketing.com/articles/Art142.htm).
- 54 McGoldrick and Andre (1997) *op. cit.*
- 55 Hill, N. (2001) 'Customer satisfaction measurement', [www.leadershipfactor.com/forum/csmnh/csm4.htm](http://www.leadershipfactor.com/forum/csmnh/csm4.htm).
- 56 Scharitzer and Kollarits (2000) *op. cit.*
- 57 Hallowell (1996) *op. cit.*
- 58 Storbacka, Strandvik and Grönroos (1994) *op. cit.*
- 59 Piercy, N. F. (1996) 'The effects of customer satisfaction measurement: The internal market versus the external market', *Marketing Intelligence & Planning*, Vol. 14, No. 4, pp. 9–16.
- 60 Griffin, A. and Hauser, J. R. (1992) 'The voice of the customer', Marketing Science Institute, Cambridge, MA.
- 61 McQuance, E. and McIntyre, S. (1992) 'The customer visit: An emerging practice in business-to-business marketing', Marketing Science Institute, Cambridge, MA.
- 62 Lele, M. M. and Sheth, J. (1988) 'The four fundamentals of customer satisfaction', *Business Marketing*, June, pp. 80–94.
- 63 Richins, M. L. (1987) 'Negative word-of-mouth by dissatisfied customers: A pilot study', *Journal of Marketing*, Vol. 47, No. 1, pp. 68–78.
- 64 Scharitzer and Kollarits (2000) *op. cit.*
- 65 Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J. and Everitt Bryant, B. (1996) 'The American customer satisfaction index: Nature,



- purpose, and findings', *Journal of Marketing*, Vol. 60, pp. 7–18.
- 66 Fornell, C. (1992) 'A national customer satisfaction barometer: The Swedish experience', *Journal of Marketing*, Vol. 56, pp. 6–21.
- 67 Meyer, A. and Dornach, F. (1995) 'Nationale Barometer zur Messung von Qualitat und Kundenzufriedenheit bei Dienstleistungen', in Bruhn, M. and Strauss, B. (eds) *Dienstleistungsqualitat* (Wiesbaden), pp. 429–453.
- 68 Eklof, J. A., Hackl, P. and Westlund, A. (1999) 'On measuring interactions between customer satisfaction and financial results', *Total Quality Management*, July, pp. 514–523.
- 69 Gronholdt, L., Martensen, A. and Kristensen, K. (2000) The relationship between customer satisfaction and loyalty: Cross-industry differences', *Total Quality Management*, 11th July, pp. 509–515.
- 70 SMART (2001) 'Customer satisfaction measurement', [www.s-m-a-r-t.com/exp\\_csm.htm](http://www.s-m-a-r-t.com/exp_csm.htm).
- 71 Chisnall, P. (2001) 'Marketing research', Sixth edition, McGraw-Hill, Maidenhead.
- 72 SMART (2001) *op. cit.*
- 73 Chisnall (2001) *op. cit.*
- 74 *Ibid.*
- 75 Bacuvier *et al.* (2001) *op. cit.*
- 76 Doyle, P. (2000) 'Value-based marketing', John Wiley & Sons, Chichester.
- 77 Thearling, K. (1999) 'Increasing customer value by integrating data mining and campaign management software', <http://www3primushost.com/~kht/text/integration/integration.htm>.
- 78 Wundermann, C. J. (2001) 'Unlocking the true value of customer relationship management', [http://www.crm-forum.com/crm\\_vp/utv/sld01.htm](http://www.crm-forum.com/crm_vp/utv/sld01.htm).
- 79 Chambers (2000) *op. cit.*
- 80 Hill (2001) *op. cit.*