1. Introduction

In market driven companies, a customer and his needs are viewed as the basic target of all the company’s activities (Webster Jr., 2005; Kotler & Keller, 2011). As mentioned and proven in many studies, market orientation fosters the competitive position of the companies and creates a significant competitive advantage (Slater & Narver, 2000; Jaworski & Kohli, 1993; Kotler & Keller, 2011; Webster Jr., 2005; Sheth & Sisodia, 2007). Marketing should therefore act as a think tank and the leader of the company’s strategy. Nevertheless, today’s reality shows a different situation. More than on strategy, marketing focuses its activity on tactical and operational business tasks (Sheth & Sisodia, 2006). A recent study among 227 Czech marketing managers proved that the most powerful department in constituting the overall corporate strategy is, in 54.9% of cases, not marketing but the sales department. Marketing represented the leading role only in 14% of cases (Karlíček & Drábík, 2012). There are many reasons why marketing has lost its strategic influence and according to Brown (1995), marketing has entered a mid-life crisis of representation. Some of the main attributes of this marketing crisis can be summarized into five main points, which have been identified by different researchers: narrow typecasting of marketing functions and accountabilities (Davies & Ardley, 2011); marketing function marginalization (Schlosser & McNaughton, 2007); shifting of marketing responsibilities to other functional specialists (Webster Jr., Malter, & Ganesan, 2005); insensitivity to environmental changes with a focus on short-term goals (Kotler, Interview: Philip Kotler, 2004); lack of business analytical and accounting skills (Cassidy, Freeling, & Kiewell, 2005). These issues lead to the failure of marketing to create, deliver and communicate the added value of its activities within the organization. From the external point of view, the core issue can be found in the fact that marketing strategies are focused on responses to competition rather than on the customer or the company’s strategic market position (Economist Intelligence Unit, 2006).

More than other departments, marketing has an intensive cross-functional position through which the internal activities are translated and formulated into direct contact with the customer. Unfortunately, the relationship between marketing and other departments (mainly sales) is often problematic. This lack of cooperation negatively affects interfunctional performance within the firm and therefore the overall performance of the company (Dewsnup & Jobber, 2000). The main issues in cross functional cooperation that decrease the effectiveness of marketing are different skills and means of marketing activities, different objectives and accountabilities and different evaluation process of marketing representatives.
in comparison to colleagues from other functional departments (Matthyssens & Johnston, 2006). All these variations lead to a misunderstanding of the marketing role within the company. In other words, non-marketing departments view their marketing representatives as risk-taking colleagues with low analytical skills and accountability (McGovern, Court, Quelch, & Crawford, 2004). For example, an international study conducted among 1 700 CMOs showed that one of the main drawbacks of marketing today is the view of its inability to manage and report marketing outcomes. One of the main reasons behind this situation is the lack of financial knowledge and insufficient technical skills of marketing representatives (IBM Global Business, 2011). Similarly, a study conducted by The Economist Intelligence Unit (2006) showed that top management is dissatisfied with the abilities of marketing representatives to measure the results of marketing campaigns. There is significant pressure on the marketing department for higher accountability. There is no doubt that marketing needs a radical change in terms of its position within the strategic decision-making process of the company.

The goal of this paper is to summarize the current development and basic principles of the Customer Lifetime Value model and its relation to the pitfalls of today’s marketing. First of all, the Customer Lifetime Value (CLV) concept is defined. Then we focus on how CLV is calculated. Last but not least, we analyze its main elements.

1. CLV as an answer to today’s business calls

As was mentioned in the previous text, marketing has lost its strategic position within the firm’s hierarchy partly because of the focus on operational issues and partly because of inter-organization difficulties. Another drawback of marketing activities is mentioned as the unclear and not fully measurable outcomes of the marketing investments (Sheth & Sisodia, 2006).

The answer to the call for marketing accountability should not only be about a cosmetic change in the marketing controlling mechanisms. It will require a total change in the way marketing is managed and on which outcomes it is focused. This change may be represented by the CLV. The main benefit of this approach lies in the way marketing perceives and works with customers and customer relationships (Rust, Zeithaml, & Lemon, 2000).

The basic principle of the CLV approach lies in redirection of marketing focus from the mass product with one-way marketing communication back to the customer, customized bi-directional communication and personalized offerings (Peppers & Rogers, 1997). Rust et al. (2004) add another crucial definition that describes the core values of the CLV. Based on this research, CLV shifts marketing from the transactional customer business view to the long-term relationship marketing approach.

Transactional marketing can be defined by short-term relationships with unspecified customers and main focus on product management. In other words, customers are viewed simply as consumers of companies’ push marketing communication methods and mass products. In contrast to the transactional marketing approach, relationship marketing focuses on long-term relationships with clearly specified and described customers. The product offered to the customer in relationship marketing does not need to be clearly personalized but it should respond in its basis to the real customer’s needs according to his or her current situation.

The CLV approach is nothing particularly new. Traders from the beginning of the 20th century can be mentioned as an example of the customer business orientation. These salesmen tried to build relationships with their customers through personalized offerings and knowledge of customers’ needs and wants. There was no direct intention behind these activities. The salesmen were just a part of the local community which helped them to know the necessary information about their customers and to react appropriately.

Today, business has become more complex and the company has to deal with a much broader customer base. Till the 1990s, it was impossible to collect, manage and work with customer data regarding customer transaction history, customer behavior, customer contact with the company, etc. The data is gained from different sources with different focus and aim, which made it hard to interconnect this information into one useful output. However, nowadays, thanks to modern informational technologies, the different sources can be interlinked in order to connect the information about customers. Thanks to different bi-directional communication methods, customers can be effectively and personally addressed.

From the inter-organizational point of view, the main change that the CLV model brings into marketing management is the view of the customer as a real business partner. CLV changes the customer from a passive consumer of the company’s products and marketing communication activities to a core and strategic company asset (Blattberg & Deighton, 1996). This new view totally changes the way customers are treated and understood.
If the customer is viewed as a long-term asset of the company, then the activities related to this asset should be managed according to the general asset management practice. Assets are taken as the basic pillar of each company’s value, through which added value of the firm is created and further translated into profit. The company’s assets stand for one of the strategic competitive advantages of the firm (Besley & Brigham, 2004). Asset management requires respective valuation and controlling methods to manage the asset correctly and to get a maximum from it. The basic premise of the strategic asset is its long-term duration and therefore a long-term profitability, which requires a long-term management approach. This long-term customer asset approach differentiates the customer relationship as it is viewed by the CLV from the short-term transactional relationship described above. The main goal of a transactional relationship is to maximize the revenue from each customer in the short-term, whereas the CLV model builds on the long-term strategic interaction between the company and the customer as the company’s long-term asset. From the financial point of view, the possibility to quantify the impact of each customer and calculate return on each marketing investment is the main advantage of the CLV model. Companies can exactly calculate not only the current, but also the future contribution of each customer and the value of the customer’s long-term relationship with the company (Rust, Zeithaml, & Lemon, 2000). Management can thus apply financially quantifiable key performance indicators for all marketing activities conducted within the firm and target them to the respective customer base. It seems that CLV may reply to most of the current marketing drawbacks mentioned in the introduction. CLV may set marketing back to the position of the main inter-organizational function of the company where marketing has the responsibility and accountability for the long-term continuous improvement and profitability of customer relationships. This responsibility consists of the profitable target customer group choice, usage of an appropriate acquisition strategy and setting of a long-term profitable retention strategy (Blattberg, Getz, & Thomas, 2001). The activities related to these strategies go through the whole firm, from the front office represented by the sales team down to the back office departments (such as customer service or accounting). Marketing, as the main managing entity, performs the coordinating strategic role in this process. On one side, it creates the external strategy in the direction of the customer and on the other side it moderates customer relationship importance through all internal teams.

2. CLV & CE Calculation

As was already mentioned, similar to other assets, each customer relationship requires an investment which should produce respective revenues. Therefore, the profits and investments will be spread over multiple accounting periods. The basic formula for each customer CLV calculation is described as the sum of all future discounted profits coming from the customer relationship, i.e. all revenues minus all costs related to the customer interaction with the firm (Bejou, Keiningham, & Aksoy, 2006). The future interactions and related profits of the customer are influenced by the retention index, marked in the formula as “r”. This index shows the probability of repetitive buying behavior in respective time period “t”. The goal of retention investments is to raise this probability in order to maintain the relationship with the respective customer for the selected number of periods. Each customer’s CLV is highly influenced by the primal investment in the form of acquisition costs, i.e. costs that are invested in the customer in order to influence him/her for the initial buying behavior as the start of the relationship.

$$
CLV = \sum_{t=1}^{\infty} \frac{R_t \times r_t}{(1+i)^t} - AC = \sum_{t=1}^{\infty} \frac{(R_t - C_t) \times r_t}{(1+i)^t} - AC
$$

CLV = Customer Lifetime Value  
$R_t$ = revenues by customer in t period  
$C_t$ = costs related to the revenues in t period  
$n$ = time horizon for estimating CLV (number of periods)  
i = discount rate  
p_t = profit in t period  
$AC$ = acquisition costs  
r_t = probability of customer repeat buying at t period

To calculate the total value of all of company’s customers, CE is used. This metric is described as the sum of CLVs of all of the company’s current and future customers (Rust, Zeithaml, & Lemon, 2000).

$$
CE = \sum CLV
$$

The CLV indicator is primarily used for internal calculations focused on the company’s strategy decisions regarding customer acquisition and retention investments. CE should be used as the indicator of a company’s overall performance and acts as one of the external indicators of the company’s condition.
2.1 Individual Communication Approach

Another model created by Kumar (2007) differentiates between and describes more deeply specific investments related to the customer and CLV creation. The Average Gross Contribution margin (GC) is described as the average revenue minus the average cost of goods sold in the respective period. From this margin, the author subtracts marketing costs for different communication channels (related to the service of the account and related acquisition costs. The total CLV of $i$ customer is calculated as the sum of margins divided by the discount factor and frequency of purchase for the selected period, minus the discounted marketing costs for different communication channels, minus the acquisition costs.

$$\text{CLV}_i = \sum_{t=1}^{T} \frac{GC_t}{(1 + \delta)^t} - \sum_{t=1}^{T} \frac{MC_t}{(1 + r)^t} - A_i$$

2.2 Brand-Switching Approach

As another form of CLV calculation, we can mention the Brand-Switching calculation model primary focusing on the B2C business field described by Rust et al. This model incorporates the brand-switching preferences of customers in a selected targeted sample (Rust, Zeithaml, & Lemon, 2004). The CLV is calculated based on information about customer preferences with regard to both the company’s and the competition’s brands. The result is the individual’s brand switching probability matrix based on the specific brand utility level of each customer.

This method needs an extensive database about both the internal and the competitors’ customer base and their purchases, which makes it hard to adapt in real business decision-making processes. This shortage can be eliminated by the Monte Carlo Simulation Algorithm described by the same authors. The algorithm adopts the “always-a-share” methodology predicting the future profitability of the relationship with the customer. The main idea of this methodology is that there is always an active relationship between a prior customer and the company. When the customer returns to the relationship he renews the previous relationship experience. Therefore, the calculation is not related to the prediction of a customer’s purchase pattern and termination of the relationship over a selected period. The focus is put on the total profits and net present value of the profit in the selected period as a whole.

2.3 Customer Migration Model

The Customer Migration Model was firstly introduced by Dwyer (Dwyer, 1997). Based on this model, customer buying behavior can be anticipated based on historical purchase retention data obtained from the internal transaction systems of the company. The model involves the customer segmentation approach based on demographic variables such as customer lifecycle, RFM Customer Value (Recency, Frequency and Monetary Value) or wallet share. These segments with different CLVs are then assessed by probability indexes of customers moving from one segment to another. The respective CLV is calculated as the multiplication of such moving probabilities and CLV of such a segment.

2.4 Probabilistic model

The probabilistic model builds the CLV calculation directly on the RFM Value – Recency Value, Frequency Value, and Monetary Value from the historical interaction with the customer. The great advantage of the model is its low information demand, especially in relation to external information sources. All the information for the CLV calculation can be gained from the company’s internal systems – on the other hand, this is its biggest downside as the future CLV is calculated only based on historical data with usage of mathematic prediction methods. The results of the probabilistic model are presented by the iso-value curves which show the relation between the Recency, Frequency and CLV (FADER, HARDIE, & LEE, 2005).

3. CLV theoretical background

CLV orientation on the long-term valuable customer relationship can be theoretically supported by the main principles from microeconomics. The implication for the theoretical confirmation of the CLV can be taken from the Product Quality Game described in the Game Theory model by Rasmusen (2000).

The players in this game are represented by the company and the customer. The game scenario can be described as an interaction of the customer with the company that produces and offers a product with a fixed price. The company chooses from two strategies, either to offer a high quality product with higher fixed production costs (lowering profit from each single interaction) or to offer a low quality product with lower production costs (increasing profit from each single interaction). The customer has the strategy to purchase the product or not. He or she cannot observe the product quality before
deciding whether to buy. The game is played repetitively in an indefinite time horizon with a zero or low discount rate. The possible payoffs of different strategies can be found below in the form of a payoff matrix.

**Figure 1 Payoff matrix**

<table>
<thead>
<tr>
<th>Company’s strategies and payoffs</th>
<th>To purchase</th>
<th>Not to purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>HQ product</td>
<td>5 / 5</td>
<td>0 / 0</td>
</tr>
<tr>
<td>LQ product</td>
<td>10 / -5</td>
<td>0 / 0</td>
</tr>
</tbody>
</table>

Source: authors

To get a better understanding about the description of the quality variable we will use the definition made by Wang (2004). He characterizes “quality” as the perceived level to which the product meets the customer’s expected value (product, procedural, personal, social and emotional value compared to perceived sacrifice).

The Nash equilibrium in this game is the combination of the “LQ product” strategy from the company’s side and the “Not to purchase” strategy from the customer’s side. This means that the initial purchase will not happen. However, the company will be interested in getting the customer to purchase. This fact will lead to the situation when the company will signal that it has chosen the strategy of a high quality product in order to convince the customer to purchase the product (which is a typical marketing acquisition technique). In addition, the company will be in the situation of moral hazard whether to signal the HQ product strategy and in reality play the LQ product with a higher profit from the single transaction or whether to really offer the HQ product but with a lower profit in the respective game.

It is clear that in repetitive games with an indefinite horizon, the only sustainable strategy from the company’s side is the strategy of HQ product offer. This is the only way to sustain the relationship with the customer and therefore long-term business sustainability. The customer has no need to quit the relationship and change the partner. In other words, the goal of the company should be creation of an open WIN-WIN relationship where the customer has no reason to terminate this cooperation. The company has to deliver the demanded product or service in the expected quality level in order to maintain the customer’s repetitive buying behavior.

4. CLV main elements and activities

CLV customer focus changes the way marketing activities are managed and what is the purpose of all marketing investments. Blattberg et al. (2001) differentiate between three categories of marketing activities depending on the customer lifecycle within the firm – Customer Acquisition, Customer Retention and Customer Add-on selling. The customer lifecycle within the firm can be divided into four stages with different expected strategies (Blattberg, Getz, & Thomas, 2001).

**Figure 2 Customer Lifecycle**

The prospect stage describes individuals with potential value for the company; the company has decided to invest an acquisition investment into them in order to develop them into customers. Early repeat buyers represent customers that have made the trial purchase and compare the delivered quality with their expectations. They decide whether to continue in the relationship or whether to defect. The third group consists of the core customers. The company tries to maintain the relationship with these customers and raise their CLV through add-on selling techniques. The last group – defectors – includes customers that are deciding to or have already decided to end the relationship with the company. In some cases, the company can still make steps to save these customers if the CLV of these clients is worth it.

4.1 Customer Acquisition

Customer acquisition stands for the basic and primary part of the whole customer relationship process. This phase influences all the following stages, and it is described by many authors as the most investment intensive part of the relationship. The process of acquisition consists of targeting (selecting the prospective customer groups), generating awareness and positioning (communication of the offer towards the targeted prospects),
building the pricing strategy (i.e. whether to apply an acquisition or retention pricing discrimination strategy) and managing the trial purchase (experience and satisfaction management).

The acquisition budget should not be considered a cost but more as a strategic investment. The primary goal of the company acquisition projects is to create a new relationship, not to sell one product or service. The acquisition investments should be made till the CLV of the customer exceeds the acquisition costs.

4.2 Customer Retention and Satisfaction Trap

According to Keiningham et al. (2006), 20% of the company’s customers make from 150% to 300% of the company’s total profit, from 60% to 70% of the customers are on the breakeven (their CLV equals zero) and from 10% to 20% of the customers lose from 50% to 200% of the company’s total profit. This finding implies the need for strategic management of retention processes.

As was already mentioned, the relationship starts with appropriate acquisition. Retention should ensure that the expected CLV would be brought to the company through strategically built relationships. The main goal of the retention activities is to ensure the repetitive buying of the acquired customers and to optimize the total CE by managing the optimal retention rate on the optimal customer base with a positive CLV index. According to Malthouse et al. (2008), retention is the result of the behavioral loyalty into which attitudinal (brand) loyalty is transposed. This model proves that loyalty on its own is not directly the key to retention but it must be linked with the purchasing behavior.

Retention and loyalty are many times associated and interconnected with the pursuit of satisfaction (Rahman, 2013). This linkage creates enormous costs, but based on the findings of many studies brings low or even zero effect on the real retention (Blattberg, Getz, & Thomas, 2001; Malthouse & Mulhern, 2008; Carnegiea, Wilcoxb, & Zhuc, 2008; Gounaris, Tzempelikos, & Chatzipanagiotou, 2007). It is because satisfaction, described as the positive difference between expectations and delivered quality, is just one element of loyalty and retention. The other crucial elements that influence retention are, according to Blattberg et al. (2001), customer perceived value (the quality divided by the price), product uniqueness, ease of purchase, customer service and the ease to exit. All these elements have to be taken into consideration when a company is trying to increase the retention rate. On the other side, even though satisfaction does not show a direct result with retention rate, it fosters long-term loyalty and decreases the defection rate (Malthouse & Mulhern, 2008).

4.3 Add-on selling

Add-on selling can be described as the direct increase of CLV through offering customers additional interaction opportunities. These activities increase the overall customer revenue and profitability (Blattberg, Getz, & Thomas, 2001; Blattberg, Getz, & Thomas, 2001). Add-on selling is not related just to the cross selling, it is more focused on the long-term management and shift in the bi-directional relationship. The add-on products or services must fit into the overall relationship with the customer and should be the answer to the customer’s direct wants and needs. Add-on selling is also a way to retain unprofitable customers through offering them additional products in order to raise the overall revenue and subsequently the customer CLV index.

4.4 Customer advocacy value

Customer advocacy value is mentioned in many theoretical studies, but there is still no research model for quantifying the impact of this element on the CLV. It is clear that customer advocacy (in many sources called word-of-mouth) has a growing importance on the overall business results because of the growing strength of social networks, which enable sharing of the experience with the product or service (Karliček, Tomek, & Klířek, 2010).

Companies already seek the opinion leaders, influencers, decision makers etc. through which they try to influence customers. Nowadays, social networks make from each customer an influencer in a short period of time with a potentially enormous response. Positive advocacy can bring more customers than any other acquisition campaign with minimum direct costs. Nevertheless, negative word-of-mouth can do more damage than ever before. All of the above-mentioned statements show that customer advocacy should be taken seriously. The first step should be to focus on customer satisfaction through which positive advocacy starts.

5. CLV limitations

Despite the above-mentioned positive assets of the CLV model, we should also mention some of the limitations that authors connect with this approach. Choo Meng Kong mentions one of the key CLV downsides is that there is no guarantee that the customer will stay loyal in his future decision making processes (Kong, 2006). As we have shown above, the retention index in the CLV formula represents a crucial element of the CLV calculation which determines whether the customer relationship will be profitable or not – therefore this element of uncertainty makes the model hard to implement easily.
without any further investments. In relation to the previously stated downside, Kotler et al. mention the need for large investment, which is connected with the creation and maintenance of customer databases in order to be able to correctly predict, influence and manage the customer decisions (Kotler & Keller, 2011). This includes not only the direct but also indirect investment related to the implementation of a real customer oriented corporate culture within the company.

From the model perspective, it is necessary to look at the CLV as a dynamic model. In many studies, CLV acts only as a form of customer evaluation input into the traditional transactional marketing strategies. The misuse of the CLV’s dynamic element can cause inaccurate customer group selection. The main aim of the CLV is to work with and develop customers in order to increase their lifetime value for the company (Carnegiea, Wilcoxb, & Zhuc, 2008). Therefore the static report about the current customers’ CLV may lead to a strategy in order to maximize this value based on the CLV philosophy.

6. Conclusion and future research implications

The current massive growth of modern information technologies and strength of social networks are leading to an increase of each customer’s importance. A customer, who was previously perceived as one of many, is now taken as a unique entity that requires specific and separate treatment. Each customer and each relationship has its own value described by the CLV model. A company has to keep in mind the importance of the value of its customers and properly manage the relationship in order to get the maximum from it.

The aim of this paper was to summarize the current development, basic principles of the CLV concept and main positive outputs for today’s marketing management and overall business strategy. It is still necessary to keep in mind the basic mission of the CLV model that manifests the need to understand the real needs and wants of each separate customer in order to build a profitable long-term relationship. The CLV approach is nothing particularly new, but it brings the marketing focus back to its roots, i.e. back to the customer.

The today’s environment, companies are already focused, on some level, on the customer and his/her contribution to the overall profitability. But with no doubt, there are major differences between the depth and time horizons of this focus. To be able to create a model of CLV application, there is a need to understand the different levels of customer orientation. This future research should describe particular differences in customer orientation in respect to the time horizon, internal management system, available information systems and their interconnection, accounting methods etc. through different business sectors and company sizes.

Moreover, there is an evident need for creation of a theoretical model calculating the real impact of the Customer Advocacy Value on the overall CLV. The basic question that should be answered is whether to count the Advocacy Value to the post Acquisition Value of future customers or as a part of the respective CLV. The research should be done both on the company’s as well as on an individual customer’s level to be able to fully understand the consequences between the company’s relationship management efforts and the elements that influence the customer’s positive advocacy.

References


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