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Value in customer-supplier relationship: a framework to understand and measure it

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1. Purpose of the paper

How can we measure the value of our customers? How is our value like suppliers for our customers? What aspects should we consider to plan business processes which allow us to have better customer segmentation and finally a high profitability? These are the three main questions this article tries to respond through the creation of a framework. This framework covers seven dimensions that any marketing measurement should take into account. These ones are: financial, forward looking, long-term, micro, relative, causal and objective. Financial gives an economical value about profitability of marketing and commercial policy. Forward looking reflects expected profits. Long-term focuses in the effect of the future time in marketing policy, in the sustainability of competitive advantage. Micro is focused in customize particular policies for each customer or market segment trying to get better forecasts and decisions. Relative gives the position of the firm in the market comparing with competitors to keep sustainable competitive advantage as a source of value. Causal gives the relationships between marketing actions and financial returns. Objective dimension expresses the wiliness of tracking, controlling and planning activities and results in objective results.

The framework is built using two approaches: customer equity and relational equity in the firm. With both of them, we can cover six of the seven dimensions, except relative dimension. Customer equity (or Customer Lifetime Value, Customer Equity, Customer Profitability) approach is focused in the customer value and measures it as the sum of customer life time values (LTV model) which covers past, present and future values. This approach gives us a quantitative result (financial) of the value of the customers and it is classified in the operational level of the framework. But, in our understanding, this approach should be completed with relational equity approach, which involves “the wealthy-creating potential that resides in the firm’s relationships with its stakeholders” (Sawhney&Zabin, 2002). Only customer’s relationships have been taken to explore in this paper with a double perspective of value as them per se and like a way to analyze and create value. So, it covers a qualitative and strategy level, and this one gives a more functional than economical value of the customer. But, it is a perfect complement which helps to calculate and understand the drivers of the future value of customer equity in the firm. The concept of customer value is in the first line of this framework as the answer for the three initial questions.

2. Customer Equity and Relational Equity

2.1. Customer Equity: LTV model, an equation proposed to measure it.

Customers have to be treated as assets that increase shareholder value by processes that accelerating (earlier cash flows produce a higher present value of money) and enhancing (increasing revenues and/or reducing costs, working capital and investments) cash flows, reducing cash flow volatility and vulnerability (lower the cost of capital) and increasing the residual value of the firm (through processes). So, customer equity is the best approach to this concept through measuring LTV.

In addition, this customer equity is based on customer relationships, which should be viewed as investment decisions and customers as generators of revenue streams. Customer relationships also generate costs. Because there are some empirical studies which refuses the generally acceptance that 20% of the customers generate 80% of the profits and many of the rest customers generate losses, it is important to measure the true value of a customer. There are many definitions of LTV given by some researches (Gupta and Lehmann 2003, Berger and Nasr 1998, Blattberg and Deighton 1996, Bitran and Mondschein 1996, Pearson 1996, Jackson 1994, Roberts and Berger 1989, Courtheoux 1995), but the definition taken is LTV as the sum of the revenues gained from a company's customers over the lifetime of transactions after the deduction of the total cost of attracting, selling, and servicing customers, taking into account the time value of money. So, the calculation is based in Net Present Value (NPV) obtained from customers over the lifetime of transactions.

There are some mathematical models to calculate LTV depending on the type of the market, but a general and simple one could be based on four components (Stahl, Matzler and Hinterhuber 2003):

1. Base Potential: cash flow from products and services that form the core of the relationship. Costs of acquisition, development and retention are estimated over the expected duration of the relationship.
2. Growth Potential: cash flow from cross-selling, up-trading, a higher "share of the wallet"…
3. Networking potential: cash flow from new relationships through customer's word-of-mouth, referrals… Referrals have a twin effect. First they may lead to additional sales and lower acquisition costs as new customers are attracted through word-of-mouth advertising. Second, referrals can increase the effectiveness of advertising and promotion because customers develop a more favorable attitude toward the firm's communication.
4. Learning potential: cash flow from knowledge created through interaction within the relationship. This knowledge could be: market conditions (competitors, customers, channels, suppliers, and social and political interest groups), technologies and business processes or future trends. These types of knowledge can be transferred into more reliable forecasts and plans providing a better understanding of current and future customer needs and consequently leading to higher quality of products and processes.

So, taking into account these components, we propose a formula as base to calculate LTV:

$$\mathbf{LTV} = \sum_{t=0}^{t=n} \frac{r_b - c_b}{(1\text{-}i)^t} + \sum_{t=0}^{t=n} \frac{r_g - c_g}{(1\text{-}i)^t} + \sum_{t=0}^{t=n} \frac{r_n - c_n}{(1\text{-}i)^t} + \sum_{t=0}^{t=n} \frac{r_l - c_l}{(1\text{-}i)^t}$$

Where:

r = Expected Revenue

c = Expected Cost

i = Discount rate, WACC

t = time

n = lifetime to consider

Subscripts:

b = Base Potential Term

g = Growth Potential Term

n = Networking Potential Term

l = Leaning Potential Term

As we have said above, many companies assume that customers with the highest sales volume are the most profitable customers and believe in the Pareto Rule. But, typically the highest volume customers also exert the greatest bargaining power, thus enjoying the lowest prices at a high level of pre and after sales services. On the other hand, low-volume customers generally pay the highest prices but may absorb even more sales and service resources than high volume customers. As a result, medium-volume customers tend to be the most profitable.

In many cases, low-maintenance customers subsidize those with high service demands. To avoid this and improve the profitability of customers´ portfolio, customers need to be treated as a bundle of costs drivers. This is precisely the principle of Activity-Based Accounting (ABC). This one provides a fairly accurate means of measuring costs related to customer relationships.

Both monetary and nonmonetary benefits have to be taken into account, and this is related with the concept of value.

LTV analysis demonstrates that the value of the relationship with a customer can be increased either by increasing the amount of profit or by extending the relationship lifetime, managing the relationship with the customer.

But to extend lifetime increases the probability of fluctuations in revenues and costs over the duration of a customer relationship. Long-term customers are not necessarily profitable customers. The costs and revenues depend on the nature of the customer relationship. Exchange efficiencies might be lower since the company must ensure that the relationship stays alive.

The longer the time horizon of the customer value analysis, the more purchase cycles are incorporated, and this increases uncertainty. Therefore, the risk of each relationship in terms of volatility and vulnerability must be estimated. This increases the cost of capital. Consequently, the discount rate is higher, so the resulting shareholder value is lower.

In conclusion, we can say that LTV is the most useful and appropriate measure of the value created by marketing policies and it is mandatory to understand better the relationships with customers to calculate accurately our customer equity.

2.2. Value in customer-suppliers relationships.

So, in order to have a better measurement of customer equity, evaluating better the future cash flows, it is mandatory to understand and to analyze deeply the customer-suppliers relationships to reduce the uncertainty associated with the relationship. The value should be analyzed from the point of view of suppliers and from the point of view of customers. Sometimes this analysis could have different results in how the value is measured ought to the two sides of the relationships have different cultures, strategies, competences, resources, history, lateral relationships,…So, the concept of perceived value is the focus issue now. Because relationship has success there should be an overlap are of common interest in some aspects and an intersection between supplier portfolio management (from the side of the customer) and customer supplier management (from the supplier side). Customer portfolio management is thus a useful tool for decreasing dependence on single customers and reducing cash flow volatility, and consequently to evaluate better LTV. On the other hand, from a strategic point of view, the networking potential cannot be traded or easily replicated by competitors; it is complementary in the sense that it makes marketing efforts more effective and creates a barrier which keeps the competitive advantage of the firms.

Relationships can be measured in two ways:

1. By the capacity of creating value through the relationship.
2. By the value of the relationship per se.

On this way, this perspective complements to the former one in the sense as the tool to estimate future revenues (up selling, cross selling) and potential risk of defection in the proposed equation.

Relationships between different players occur at the same time, so these interactions create a network with mutual dependency of resources that implies not only control effects in the direct relationships as well as effects coming from external relationships between other actors in the network. So, network is view like an ecosystem, difficult to control the boundaries of each firm and difficult to control costs and benefits. Depending on the structure of the business market, there are two perspectives (Axelsson and Wynstra, 2002) or business context:

1. Functional market characterized by perfect competition:

-Large number of actors, buyers and sellers and it is atomistic, i.e. relations between actors are significant;

-No single actor can in any significant way influence other actors and/or markets in a wider perspective;

-It is fluid, it is simple to exchange one supplier for another or/and to get new customers, and the offer (product, price…) of the moment is the determining factor. This is typical of spot business.

-Partly, it depends on the offering's level of standardization: a less standardized, i.e. more unique offer, entails a lock-in, at least in the short term.

-Commercial competences are primarily market knowledge and an ability "to play the market". For the technical/functional aspects of the transaction it is important to be able to assess the core function to be exchanged. The perceived trade-off between benefits and sacrifices defines the value from the buyer's perspectives.

-Market context pushes the behavior toward using existing competition and to try exploiting every opportunity. It supports transactional approach to marketing and purchasing and supply management.

2. Market like a relatively well-organized connected systems or network:

-It consists of a few important actors, buyers, and sellers who can strongly influence the market;

-There are important dependencies between actors and this implies that those actions, which take place within a specific business relationship, influence and are influenced by actions within other relations;

-It is rigid, i.e. it is a difficult process to change supplier and/or to get new customers, as it involves a more or less well-organized system of actors, activities, and dependencies.

-It drives to a relationship-oriented approach.

-Activities of the selling (buying) company are thus aimed toward specific customers (suppliers) instead of toward large market segments. The content and function of the specific relationship are emphasized, but especially the relation's function in the larger network will be put in focus much more here than in the type of market descript before.

-The demands on the marketing or purchasing function's competence consequently become more complex, and functional, production technical and market-related aspects need to be assessed. In this situation, in a short-term, it is very difficult to change counterpart, and work will instead be directed toward building the relation, learn about the other party, and so on. This would tie in very closely with assessing the value of relationships. Relevant commercial competences should be focused on understanding the industrial network's way of functioning and ability for network-oriented behavior. For the technical aspects of the transaction, competence in the wider functional aspects of the product/service becomes relevant.

In any case, to have a complete panorama it could be necessary to evaluate the importance of competition to create sustainable competitive advantage based in his position in the added value chain. This could be a line to follow in future investigations.

2.2.1 Supplier perspective

The model followed in this article was defined by Walter and colleagues (2001) who understand value as the perceived trade-off between multiple benefits and sacrifices gained through a customer relationship. These benefits and sacrifices come from the direct relationship between supplier and customer as well as from parallel relationships they have apart from their own direct relationship. Walter takes the supplier perspective and understands there is a balance for a supplier between the value offered to the customer and the benefit obtained from this relationship. This one doesn't have sense if the supplier doesn't measure this benefit and understand the origin of this value. Walter develops a model based in functional approach (functionalist paradigm) of customer relationships focused in value creation, which measures performed activities and employed resources of the customer. He distinguishes between direct and indirect functions to create value:

- Direct functions: immediate effect on the partner's firm.
- Indirect functions: ambiguous effect on the partner because their relationship is directly or indirectly connected to other relationships. They impact on exchange in other relationships.

Direct functions are:

- Profit function: direct profit got from the relationship with a customer.
- Volume function: The interest for the supplier is on reaching the break-even point of his capacity which allows balancing and extracting a global benefit of the customer portfolio management.
- Safeguard function: relationship with the customer works like an insurance to protect the supplier against uncertainties in competitive markets.

Indirect functions are:

- Innovation functions: the main purpose of the relationship is linking the supplier with the leader of the market in some important aspect (technology, logistic, distribution network…) or area where the customer has a great expertise.
- Market function: relationship is useful to show it to other customers like a prestigious reference of high quality performance. This is related with brand value of the supplier.
- Scout function: the target is to have access to strategic information (product development) for the supplier whose owner is the customer.
- Access function: in business-to-business markets official authorities, chambers, banks and/or trade associations can play an almost dominant role. Customer's experience in dealing with such actors can be of considerable help for a supplier to reduce time- and money-consuming licensing procedures, business negotiations,…

Some authors add another function named "Social function" which picks up historical relationships, and dealings based on fairness and trustful past dealings. Walter concludes that direct functions are related directly with company's performance; meanwhile indirect functions do not influence the performance of a company directly within that relationship or at a particular moment, but are nevertheless important for the future development of the firm.

Walter proposes a framework to manage the different types of relationships forming the value creation matrix:

- Low-Performing relationships: we can find between them ineffective relationships which comprise initial relationships with potential to develop them, relationships close to dissolution or change or relationships kept ought to not rational reasons (historical, social,…). These ones should be deleted for not wasting resources or evolve to a new more profitable step.
- Selling relationships: only they comprise direct functions.
- Networking relationships: valuable resources are gathered and/or created, allocating them in different players involved in different relationships. A complex bundle of relationship management activities has to be coordinated.
- High-Performing relationships: allocation of responsibility is not easy and should involve a cross-functional team along different departments.

Direct value-creating functions customer relationships		Low	High
	High	Selling relationships	High-performing relationship
	Low	Low-performing relationship	Networking relationship

Indirect value-creating functions of customer relationships

Table 1. Value Creation Matrix

The relationships are not static, so they can evolve and allow moving from one box to another in function of the game action-reaction established in different times between supplier and customers. Clearly, managers should try to move to high-performing relationships with customers trying to get the best customer portfolio management. The last purpose is to reduce the buy dilemma which appears when customer is allocated in exchange state of purchasing. But at the same time, to estimate the functional and economical value in this situation is not easy, and it appears a clear risk and uncertainty. So, to compose a balanced customer portfolio in terms of profitability, uncertainty, risk, resources… is a must. The composition of this portfolio and the success of the strategy will depend on the business context descript in point b.

So, the model of Walter develops in detail the four components of the LTV formula proposed above. The direct functions match with base and growth potential. On the other hand, the indirect functions market, scout and access are embedded in the networking potential term; and innovation matches better with learning potential term.

2.2.2. Customer perspective

Depending on the two main types of business context, there are two forms of purchasing behavior: transaction-oriented versus relation-oriented purchasing behavior, which has also been referred to as “classical purchasing philosophy” and “modern purchasing philosophy”.

Transactional point of view could be characterized by the customers could access to several different suppliers, and competition between these suppliers induces them to continuously improve their performance. In this way, vitality and quality is bred at the same time, as prices are kept as low as possible.

Relation-oriented, co-operation and long-term relations are emphasized, and the goal is to achieve as low as costs as possible, not only low prices on the actual products that are purchased, but also other important costs involved like use, product adaptation, learning, organizational impact, dysfunction, handling,…

Based on these orientations, value creation process appears like a continuum spectrum from “core value” (closer to transactional) to “added value” (value production) and finishing in “future value” (closer to relational approach and partner relationships).

In core value (or exchange value), the utilization of the potential value in the offering is not free for the customer, the suppliers can try to increase perceived offering value by reducing the customer's use of resources by providing extended services (delivery, training, education, maintenance,…) The creation of an extended services offering is not considered an investment.

In added value relationship, the supplier and customer should develop relational competences in addition to their existing internally-oriented competences. Joint product development with "pilot customers" or "lead suppliers" represents traditional examples of this value.

In future oriented relational value, it is difficult to assess the costs and sacrifices of creating value to the side of buyer or supplier. As well as, to manage this relationship is complex and it involves many departments and resources in supplier and buyer at the same time: "teams of resources". The actor, who manages resources in a special way to configure activities which are valuable, rare, inimitable, and no substitutable, holds a very strong power position in a value system and can appropriate the largest share of the revenue that the system creates. So, an investigation line concerning this would be the relationship of value system with added-value chain.

So, only in core value production is possible to measure the supplier value. In the rest of the cases, a supplier's capability profile could be used. This model is based in measuring at the same time some indicators of supplier's value production capabilities which give an idea about the reached complexity of the relationship between supplier and customer. They represent a way to measure the sequential steps of the relationship. To more complexity and new of technologies involved in the relationship, more necessity of partnership and work culture matching. To have a balanced customer and supplier portfolio management is a must to have success and profitability in marketing policies. A summarize of indicators to measure these capabilities could be: production, delivery, process improvement, relational, networking, radical innovation, mastering the customer's business.

The dimensions of supplier value for a customer in both approaches are (Kristian Möller and Pekka Törrönen, 2003):

- Efficiency: to profit better the bought resources.
- Effectiveness: ability to invent and produce solutions which provide more value to the market than existing ones.
- Network functions: cover the rest of the aspects of the relationships established in a network.

These dimensions match with Walter model function value defined for customer value.

Transactional-oriented approach	Relational-oriented approach
Many alternatives	One or few alternatives
Every deal is a new business, and no-one should benefit from past performances	A deal is part of a relationship, and the relationship is part of a network context
Exploit the potential of competition	Exploit the potential of co-operation
Short-term, arm´s length distance, and avoid coming too close	Long-term with tough demands and joint development
Renewal and effectiveness by change of partner, and choose the most efficient supplier at any time	Renewal and effectiveness by collaboration and team effects, and combine resources and knowledge
Buying products	Buying capabilities
Price-orientation, strong in achieving favorable prices in well-specified products	Cost-and value-orientation, strong in achievinglow total costs of supply and developing new value

Source: Axelsson & Wynstra (2002: 214)

Table 2. Transactional-oriented versus relational-oriented purchasing behavior

2.3. Matching customer and supplier perspective

According with previous value schemes based in "functional paradigm" for customer orientation (Walter) and supplier orientation (Möller & Törrönen), there are some matching areas between them which allow the business relationship work properly. These matching areas appear like value creation arenas and are analyzed in four levels:

- Level 1: "transaction value" creation, related with direct costs and benefits. The affected dimension is efficiency.
- Level 2: "generative value" like the arena where customers and suppliers learn and adapt mutually. Affected dimensions are efficiency and effectiveness.
- Level 3: it affects to "relationship portfolio" of customers and suppliers. Affected dimension is network functions.
- Level 4: it affects to the total network of customer-supplier. Affected dimension is network functions.

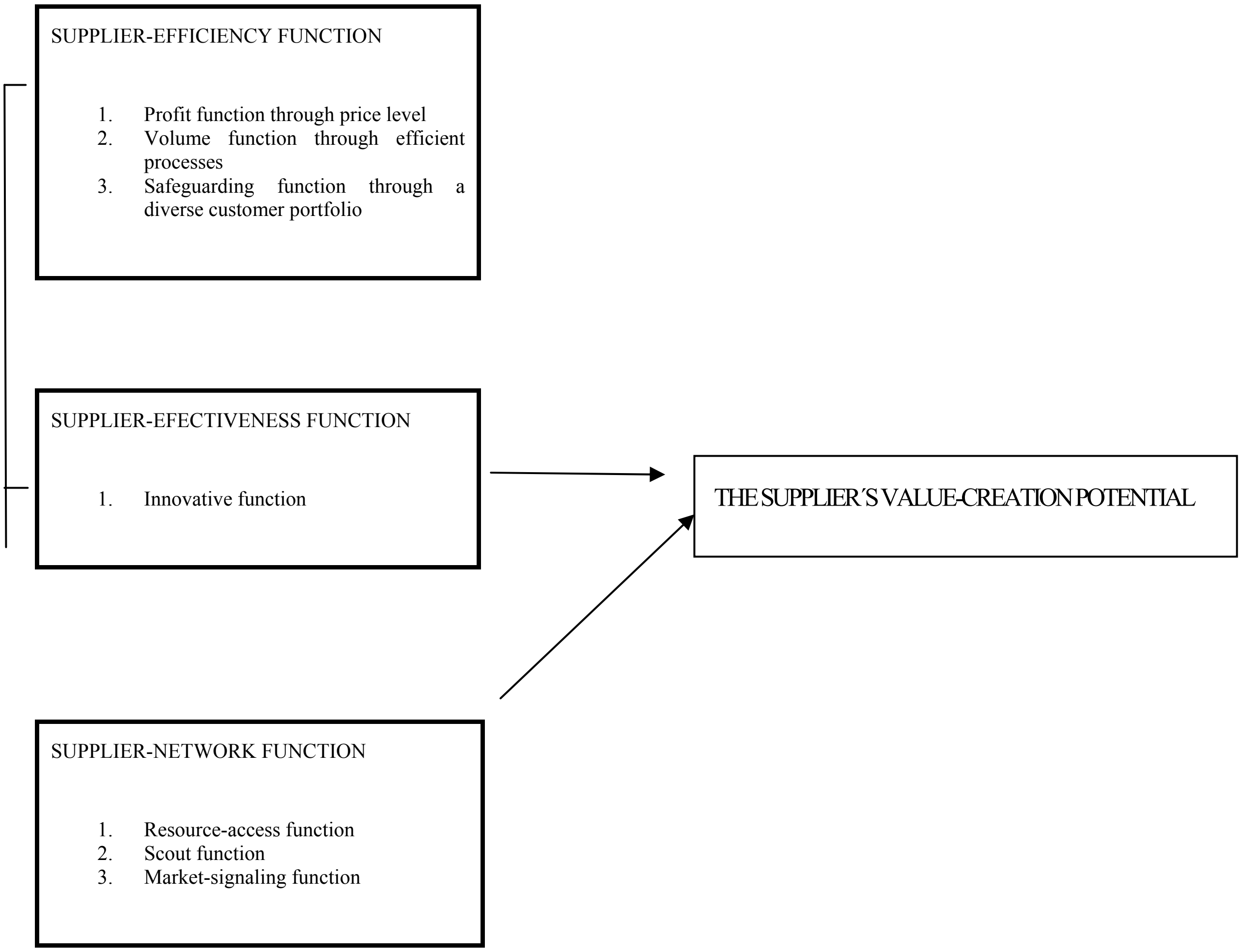

Figure 1. Matching customer and supplier perspective

So, on the same way a customer management portfolio is needed from supplier point of view, a supplier management portfolio is needed from customer side. The creation of value will rely on "trust", "commitment" and "shared information system" of the relationship between customer and supplier to find the common matching arena.

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