

Using Value Equations to Analyse Exchanges in Business to Business Markets

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Abstract

The concept of exchange is considered and the insights that this provides are combined with Day's concept of customer value equations to propose that there is also a need to evaluate the supplier's value equation. Examples of how both customer and supplier value equations might be used by a supplier to further its understanding of the relationships which it has with customers are discussed.

Introduction

In recent years there has been an increased emphasis within marketing on the concepts of 'exchange' and 'value'. As far as exchange is concerned, it is perhaps the impact of relationship marketing that has been the major influence in a 're-visiting' of a concept that is at the core of marketing. The emphasis on 'value' is more recent but throughout the 1990's increasing attention has been given to the concept though many different definitions and points of view have been adopted. This paper will demonstrate that, the concepts of exchange and value creation can be integrated through the use of value equations to provide a supplier with valuable insights into its relationships with its customers.

Exchanges

It is noticeable that much of the literature simply refers to 'the exchange' - even where it is pointed out that there are two sides to an exchange. This use of the term 'exchange' too often has the effect of emphasising the efficiency of the exchange at the expense of consideration of the exchange's content and thus overlooks two important points. First, both parties considering entering into an exchange will have a 'wants list'. These lists will be different for each party and reflect the fact that exchanges are, "multiplex" (Aldrich and Whetton 1981) because "organizational actors ... transact for a variety of reasons and exchange different contents" (Sydow 1998). An organization enters into an exchange only if it anticipates that, by so doing, its wants will be satisfied. This anticipation of satisfaction is a necessary condition for an exchange to occur. Second, what each party offers the other is a mixture made up of a number of attributes. An important implication of these two points being that both parties are 'consumers'.

The customer's 'offering' is critically important because customers do not just offer to pay for an item - they can offer to pay in different ways each of which have different degrees of attraction to the seller. For example, a customer may offer a potential supplier a range of different benefits. The fact that the selection of customers is a central marketing concept gives emphasis to this viewpoint (Day 2000).

The 'product' is also a dominant concern of the marketing literature. Fundamentally to a customer a 'product' is a bundle of attributes made up of the total package of benefits. and, if an exchange is to be made, the customer must believe that the benefits that it will

gain from having access to this bundle of attributes will exceed its costs of making the exchange. This is illustrated by the “customer value equation” (Day, 1999).

Value “equations”

Day (1999) introduces the value equation proposing that the value (V_c) that a customer perceives itself as gaining by making a purchase from a particular supplier can be represented as the difference between the perceived benefits (B_c) and the perceived life time costs (C_c) arising from making the purchase. That is: $B_c - C_c = V_c$

The example below illustrates the types of items that might appear under each of the two components of the equation.

The customer’s value “equation” (Day 1999)

<i>Perceived benefits (Additions to gross profit)</i>	-	<i>Perceived life cycle cost of product or service</i>	=	<i>Perceived value</i>
<ul style="list-style-type: none"> a/ improved performance b/ reduced operating costs c/ reduced working capital d/ reduced risk 		<ul style="list-style-type: none"> a/ ordering costs b/ purchase price c/ set-up costs d/ operating and maintenance costs e/ financing costs f/ disposal costs 		

Implicit in this formulation is the view that ‘the product’ is a bundle of attributes.

However, in Day’s example the variables are easily measurable items while in fact both ‘costs’ and ‘benefits’ may include intangible elements that are important to the customer.

As the word ‘cost’ is associated with monetary measures, the term ‘sacrifice’ will be used (and S_a substituted for C in the equation) to encompass both measurable and non-measurable costs. It might also be difficult to place a monetary value on the ‘benefits’ of dealing with a particular supplier. Day’s suggests that, if a supplier can understand the value equations of each of its significant customers, it can obtain useful insights into how it might improve its offering to each customer.

However, the concept of exchange suggests that there would also be value in considering the supplier’s value equation. That is a supplier will benefit by constructing a value equation for itself with regard to its relationship with each significant customer. First, because by considering its own value equation in association with that of its evaluation of the customer’s value equation, it will obtain insights into how it might create increased value for its customers. Second, as the customer is as likely as the supplier to initiate an exchange, there will also be value attempting to understand how customers perceive its value equation.

Fundamentally the supplier’s value equation proposes that the value (V_s) of being a supplier to a specific customer is the difference between the perceived benefits B_s obtained and the perceived life cycle sacrifices S_{a_s} incurred. That is: $B_s - S_{a_s} = V_s$

As for the customer value equation this simple formulation can be developed to shown the components of the variables involved. For example:

The supplier's value "equation"

<i>Perceived benefits of supplying a specific customer</i>	<i>Perceived life cycle sacrifices of supplying the product or service</i>	=	<i>Perceived value</i>
a/ purchase price	a/ costs of "production" and delivery		
b/ reputational effects of association with customer	b/ service and servicing costs		
c/ access to market	c/ financing costs d/ disposal costs e/ restraint on choice of customers		

In this equation too both 'sacrifices' and 'benefits' include elements which may be difficult to evaluate in monetary terms but are nevertheless relevant.

Using value equations

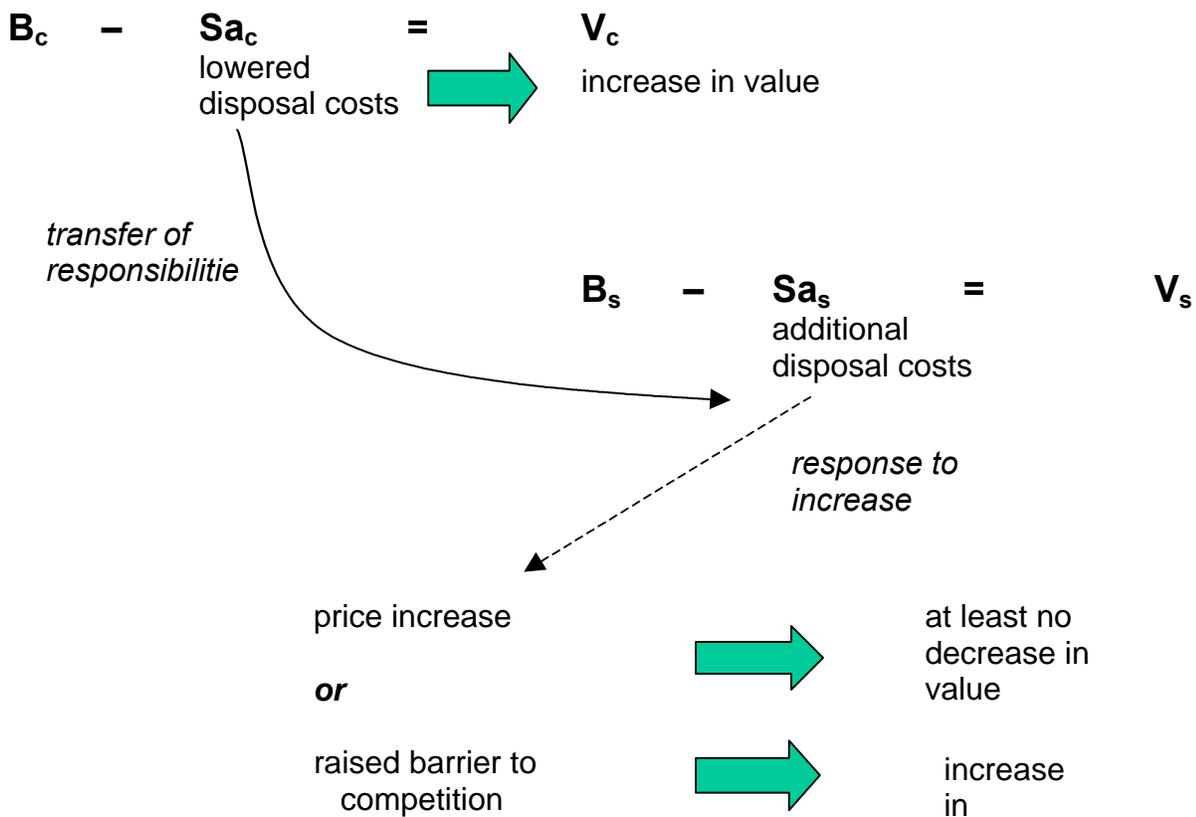
There are many ways in which the exercise of understanding both its and its customer's value equation may provide a supplier with insights into beneficial reformulation of its product offering to individual customers. Just two will be illustrated here.

Win/win exchanges of sacrifices and benefits Sometimes items appear in the same category for both supplier and customer and this may indicate the possibility of mutually beneficial transfers of sacrifices or benefits between them. For example, a chemical supplier might note that its customers need to dispose of chemical waste. It may be that,

given its own experience with chemicals and/or its scale of operations, the supplier could dispose of the customer's waste for lower cost than the customer.

Figure 1 illustrates just two of the possibilities that are open to a supplier. One is it can increase its price which, as long as the increase is less than the disposal costs that the customer confronts, will still leave the customer gaining in value. Alternatively the supplier could maintain its price and gain value through the benefit of increased customer dependence on it once the customer gives up its disposal activity.

Figure 1 **Win/win exchanges of benefits and costs**



Building relationships The distinctive feature of relationships is the belief that in addition to the value created by the exchange there is value in the relationship itself. Perversely this becomes apparent when it is realised that firms may in the short-term incur 'additional' costs to maintain a relationship. 'Additional' in that a specific exchange could have occurred at a lower immediate cost if the parties involved had assumed that this was only a discrete transaction.

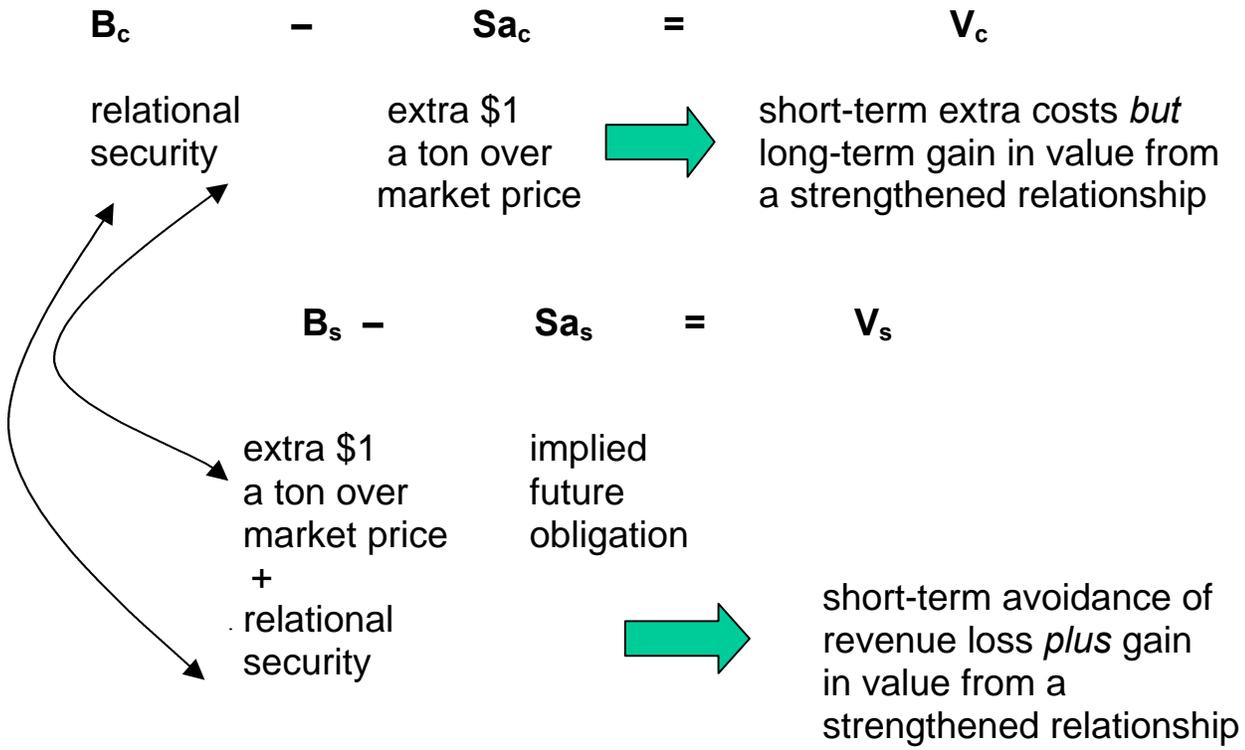
Macneil (1981) provides the following hypothetical example.

A Seller of coal, from whom the Smelter usually buys its coal, once or twice a year occasionally buys some coal speculatively thinking that the Smelter will probably be interested in stockpiling coal at a price lower than most of the market. The Smelter has always bought this 'cheap' coal. Suppose after the Seller has made a speculative purchase of 5,000 tons the market price drops to \$34 a ton but Seller needs to sell at \$35 a ton to at least breakeven on the trade.

Macneil says that, if Smelter does pay \$35 for the coal, then "We may reasonably infer that Smelter has paid \$34 per ton for the coal, and \$5,000 (\$1 a ton) for the maintenance of interdependence, future cooperation, and solidarity with Seller." (Macneil 1981) The Seller gains the immediate benefit of selling the coal without incurring a loss but the

implication is that it must be prepared to bear the cost of not exploiting some future profitable opportunities.

Figure 2 The value of a relationship



This can be seen in that the value equations of supplier and customer must show an increase in value for either both parties or one party without the other's value being reduced.

What is 'value' to a customer?

Defining 'value' is a major and unresolved issue for and definitions "typically rely on other terms, such as *utility*, *worth*, *benefits* and *quality*" (Woodruff 1997) that are often not well defined. A second problem is that it is unclear as to exactly what form of value a company should pursue.

To the supplier how the customer interprets 'value' does not matter as long as the supplier has an understanding of what that interpretation is. For a supplier which does not understand how the customer perceives value may configure its offering in, at best, in a less than effective manner but, at worst, in an ineffective manner. Thus a vital item of information that a supplier needs about its customers is how the customer perceives the purchase contributing to its generation of value.

It is the customer's perception of how the product or service contributes to the achievement of its fundamental objectives that is important. The important issue is, when a supplier is choosing how to allocate its resources between customers, that it recognizes that its future success is more dependant on its customer's successful attainment of their objectives than it is on others.

Conclusions

There is no easy way understanding of customer's perception of value and the concept of value equations is but one approach. Its distinctive feature is that it recognizes that in business-to-business markets suppliers are as likely to be selected by customers as vice versa. Furthermore that both parties are seeking to enhance the value of their operations. If a supplier constructs value equations for its customers and seeks to perceive its own value equation from a customer's point of view then it will gain insights into the way in which its product offering should be developed and presented to customers.

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