

On the Use of Customer Lifetime Value As a Limit on Acquisition Spending

ABSTRACT

The concept of the lifetime value of a customer is well established in the theory and practice of database marketing. The lifetime value of a customer, defined to be the expected present value of the net cash flows from the firm's relationship with the customer over his or her lifetime, is often used as an upper limit on spending to acquire the customer. If the expected cash flows from the relationship with the acquired customer have a present value of \$100, then the firm should spend no more than \$100 to acquire that customer. The purpose of this paper is to examine carefully this use of customer lifetime value. While the \$100 lifetime value of the acquired customer is one important factor in the acquisition decision, it need not be the only factor. This paper will offer several examples where acquiring a customer can affect (either positively or negatively) the firm's relationship with its other customers and/or prospects. In other words, sometimes the acquisition of a customer affects the lifetime values of the firm's other customers and prospects. In those situations, the firm must account for these higher order effects when setting a limit on acquisition spending.

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Introduction

The concept of the lifetime value (LTV) of a customer is an important one for database marketers. Much has been written about the conceptualization, use, calculation, and modeling of LTV (see for example Berger and Nasr [1998], Blattberg and Deighton [1996], Jackson [1996], and Dwyer [1989]). For the purposes of this paper, I shall define LTV as the present value of the future cash flows directly attributable to the firm's relationship with the customer. These cash flows typically include revenues, product and servicing costs, and remarketing costs.

LTV is perhaps most commonly used to help firms decide how much to spend to acquire new customers. For the most part, customer LTV is offered as an upper limit on acquisition spending. Some examples: "LTV provides a ceiling on spending to acquire new accounts" (Dwyer 1989). "Most concern with LTV has been with the front end. How much can a firm afford to spend on customer acquisition given the lifetime value of a customer?" (Katzenstein and Sachs.1992, page 184). "To ensure that the customer acquisition programme brings in the right types of customers who contribute to the value of the firm, it needs to be ascertained that each prospect's predicted long-term value (LTV), on conversion, exceeds his/her acquisition cost." (Hansotia 1996).

It appears these authors are singing from the same hymnal. To paraphrase the refrain:

The value to the firm of acquiring a customer is equal to the LTV of the acquired customer.

For example, if the LTV of the customer is \$100, the refrain suggests it is worth \$100 to the firm to acquire that customer. If it costs the firm \$90 to acquire that customer, the firm should do so and increase the value of the firm by \$10. If, however, it costs the firm \$110 to acquire the customer, the firm should decide not to acquire this customer.

The purpose of this paper is to offer a point of clarification with respect to this popular refrain. While it is *sometimes* true that the value to the firm of acquiring a customer is equal to the customer's LTV, it is not *always* true. Sometimes there is more riding on the acquisition of a customer than just the cash flows from the acquired customer. In such situations the LTV of the customer will still be an important factor in the firm's decision to acquire the customer, but it will not be the only factor.

The Value To The Firm Of Acquiring A Customer Is Not Necessarily Equal To The Ltv Of The Acquired Customer

Let me begin by offering an extended version of the aforementioned refrain, one that acknowledges the possibility that acquiring a customer can have implications that extend beyond the cash flows from the acquired customer.

The value to the firm of acquiring a customer equals the LTV of the acquired customer *plus* the net effect the acquisition has on the firm's relationships with its other customers and prospects.

This extended refrain acknowledges two ways the acquisition of a customer can affect the firm: 1.) directly through the expected cash flows from the newly acquired customer and 2.) indirectly if and when the acquisition of the customer affects the firm's relationships with its other customers and/or prospects (potential future customers). While the LTV of the customer correctly accounts for the direct effect of acquiring the customer, by definition it ignores any indirect or *higher-order effects*.

An example of these higher order effects may prove useful. Suppose an upscale restaurant offering quiet, romantic, fine dining contemplates acquiring young families with children as customers.

While the restaurant may be able to find such families, and those families may be very profitable for the restaurant (have positive lifetime values), their acquisition would most certainly negatively affect the restaurant's relationships with its existing set of loyal customers. Assuming these negative higher order effects dominate the potential LTVs of the prospect families, the restaurant should not attempt to acquire the families—despite their positive LTVs.

This simple restaurant-example illustrates the main point of this paper. There is more at stake in acquiring a customer than simply the lifetime value of the acquired customer whenever acquiring the customer affects the firm's relationships with its other customers and prospects. In the presence of these higher order effects, the LTV of the acquired customer should not be used as the limit on acquisition spending.

When the higher order effects are positive (when acquiring the customer *improves* the firm's relationships with other customers and prospects) the firm can afford to spend *more* than the LTV of the customer in efforts to acquire him or her. When the higher order effects are negative (as in the restaurant example) just the opposite will be true. If the negative higher-order effects are large enough, the firm might even invest in efforts to *avoid* acquiring the customer—despite his or her positive LTV.

Examples of Higher Order Effects of Customer Acquisition

The restaurant example was chosen for its clarity. The presence of children in a romantic restaurant would detract from the dining experiences of the restaurant's core set of customers—thereby lowering their LTVs. Similarly, a resort hotel booking convention business might lower the LTVs of its relationships with vacationers. A country club reaching too far for new members might detract from the membership experience of the more established members. And an apartment complex renting to noisy and disruptive tenants might lose some of their long-standing renters and find it harder to recruit new ones. In all these examples, the acquisition of new customers affected existing customers in a very real, physical sense.

The kinds of customers the firm acquires can affect the loyalties and LTVs of its existing customers even if the interaction among customers is less direct and obvious than in the preceding examples. Customer decisions about what model of car to drive, what perfume to wear, and what style or brand of clothes to purchase are all affected to some degree by the customer's desire to be associated with the brand's current franchise of customers. The image of the firm or brand is shaped

by the kinds of customers the firm acquires. So if newly acquired customers change the firm's image in the eyes of its existing customers, the loyalties and LTVs of those existing customers will also be affected. Thus when Izod shirts—the ones with the highly-visible alligator symbol—started being worn by a younger, less-affluent market segment of the US in the late 1970s, the implications for Izod went well beyond the cash flows from these newly-acquired customers (Leigh and Gabel 1992). The acquisition of these younger, less-affluent customers undoubtedly raised the LTVs of thousands of like-minded prospects but simultaneously lowered the LTVs of Izod's relationships with its established customers.

The Izod example illustrates the importance of reference groups on consumer decision making. Within any reference group there often exist opinion leaders, individuals whose actions and advice are particularly influential (Jenkins 1992, page 56). The value to the firm of identifying and acquiring these opinion leaders comes not so much from the net cash flows from the opinion leader as from the opinion leader's positive affect on the firm's other customer and prospect relationships. This helps explain, for example, why drug companies aggressively pursue doctors associated with teaching hospitals and shoe companies pay professional athletes to wear a certain brand of shoe. The value to the firm of acquiring an opinion leader is much greater than the value of

cash flows from the firm's relationship with the opinion leader. The influence an acquired opinion leader exerts on the firm's other customers and prospects is another example of a higher order effect of customer acquisition.

The influence of opinion leaders is often exerted using word of mouth—customers talking to other customers and prospects. Word of mouth is particularly persuasive because it comes from a trusted source (a friend or relative) with no financial interest in the firm. Everything else equal, the firm would prefer to acquire customers who will offer positive and influential word of mouth at times when it will do the most good. The benefits of word-of-mouth are another example of a higher order effect of customer acquisition in that the word of mouth of the acquired customer affects the firm's relationships with other customers and prospects. These benefits should be accounted for in the firm's decision to acquire a customer despite the fact that they will not be reflected in the cash flows from the acquired customer.

The Jiffy Lube example provided by Hughes (1997) illustrates this idea quite nicely. In his model to evaluate a proposed retention building strategy, Hughes accounts for the number of referrals a customer provides over his or her lifetime. The cash flows from the referred customers are added to the cash flows from the original customers to

account correctly for the total benefits of customer acquisition and the retention-building strategy. If acquired customers help the firm acquire additional customers through referrals, this is a clear example of a higher order effect of customer acquisition. This higher order effect should be accounted for in the firm's decision to acquire the original customers. The Hughes model does so.

While the cash flows from referred customers must be accounted for in the firm's decision to acquire the original customers, they should not be included in the calculation of the LTVs of those original customers. The cash flows from the referred customers get accounted for in the LTVs of the referred customers. To avoid double counting, they must not also be accounted for in the LTVs of the original customers. This is clearly the convention Blattberg (1998) had in mind when he suggested that the LTVs of the firm's customers and prospects be added together to measure customer equity—the total asset value of a firm's customers. For the summing of LTVs to make sense, there should be no double counting of cash flows

So far the talk has been about acquired customers influencing the firm's existing customers or prospects. However, all of these customer relationships take place within a larger marketing environment. While the firm's relationships with its customers may be of central importance,

its relationships with the other players (suppliers, competitors, etc.) in this environment should not be ignored.

The act of acquiring customers can have several positive effects on these other players. For example, acquiring customers can improve the firm's relationships with suppliers, discourage competitors, engender the support of marketing intermediaries, convince other firms to market complimentary goods and services, and help win favorable treatment from financial institutions, media organizations, and governmental bodies. All of these positive outcomes in turn lead to better, more profitable customer relationships in the future. The end result is that acquiring customers can sometimes produce rather dramatic higher order effects. Especially for developing brands or firms, these higher order effects are a very valuable consequence of customer acquisition.

As a final example of a higher order effect of customer acquisition, consider that acquiring customers often affects the firm itself and the firm's ability to acquire and satisfy future customers. Experience-curve theory suggests that firm performance improves with volume (Hirschmann 1964). Costs decrease and knowledge increases as the firm gains experience. The presence of experience-curve effects means that firms can invest initially in unprofitable, negative-LTV relationships

trusting that subsequent relationships will become profitable as the firm learns from experience how to decrease costs and improve service.

Summary

The purpose of this paper has been to examine carefully the use of customer LTV as an upper limit on acquisition spending. That use will be appropriate if there are no significant higher order effects of acquiring the customer. In other words, the value of acquiring the customer is equal to the LTV of the customer if and only if the acquisition of the customer has no net effect on the firm's relationships (now or in the future) with its other customers and prospects.

This assumption will be a reasonable one if the firm's relationships with its customers and prospects are separate and independent (as depicted in Figure 1). In such a situation, the only thing that ties two customers together is the fact that they both have a relationship with the firm. The firm's relationship with one customer has no effect on its relationships with other customers.

***** insert Figure 1 here *****

Figure 1 is the model that underlies much of traditional database marketing thinking and practice. Customers are represented as rows in a database with firm decisions separable and tailorable across the rows and customer outcomes independent across rows. It is this independence of customer outcomes that underlies the testing and statistical modeling so prevalent in database marketing. It is this separability and independence that underlies the use of customer LTV as the sole component of the value of acquiring the customer.

This paper has offered several examples, however, wherein Figure 1 is too simple a representation of the relationship between the firm and its customers. These examples reflect commonly acknowledged marketing phenomena. They fall into three broad categories: 1) acquired customers influence other customers or prospects, 2) the act of acquiring customers affects other players in the firm's marketing environment, and 3) the firm benefits from the experience gained from its relationships with the acquired customers. In situations such as these where there are important higher order effects of customer acquisition, the firm's decision to acquire a customer should be based on more than just the LTV of the acquired customer.

References

- Arthur, W. B. (1996) Increasing Returns and the New World of Business, *Harvard Business Review*, July-August, 100-109.
- Berger, P. D., and Nasr, N. I. (1998) Customer Lifetime Value: Marketing Models and Applications, *Journal of Interactive Marketing*, 12(1), 17-29.
- Blattberg, R.C. (1998). Managing the Firm Using Lifetime-Customer Value, *Chain Store Age*, January, 46-49.
- Blattberg, R., and Deighton, J. (1996) Manage Marketing by the Customer Equity Test, *Harvard Business Review*, July-August, 136-144.
- The Dominion (Wellington)* (1996) Ad Featuring Princess Breeches Standards, October 17.
- Dwyer, F. R. (1989) Customer Lifetime Valuation to Support Marketing Decision Making, *Journal of Direct Marketing* 3(4), 8-15.
- Hansotia, B. J., (1996) Enhancing Firm Value Through Prospect Customer Lifecycle Management—Part 1, *Journal of Database Marketing* 4(4), 350-360.
- Hirschmann, W. (1964) Profit from the Learning Curve, *Harvard Business Review*, January-February, 125-139.
- Hughes, A. M., (1997) Customer Retention: Integrating Lifetime Value into Marketing Strategies, *Journal of Database Marketing*, 5(2), 171-178.
- Jackson, D.R. (1996) Achieving Strategic Competitive Advantage Through the Application of the Long-term Customer Value Concept, *Journal of Database Marketing*, 4(2), 174-186.
- Jenkins, J. R. G., (1979) *Marketing and Customer Behavior*, Pergamon Press, Oxford.
- Katzenstein, H., and Sachs, W.S. (1992) *Direct Marketing Second Edition*, MacMillan Publishing Company, New York.
- Leigh, J.H.; and Gabel, T.G. (1992) Symbolic Interactionism: Its Effects on Consumer Behavior and Implications for Marketing Strategy, *Journal of Services Marketing*, 6(3), 5-16.

Figure 1. A Traditional Direct Marketing Model

