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# **The Heart of the Matter: The Challenge of Customer Lifetime Value**

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## **THE HEART OF THE MATTER: THE CHALLENGE OF CUSTOMER LIFETIME VALUE**

Why does customer lifetime value matter? Is the effort and resource required to develop a useable measure justified?

Our view is that customer lifetime value is fundamental to understanding how to manage a banking operation. Far from being simply a Marketing or Sales issue, knowing the value of customers while they transact with you is vital to understanding the current economics of banking services, and the future opportunities; especially if that relationship will be for the actual lifetime of the customer.

The purpose of this paper is to discuss the concept of customer lifetime value, which is, despite its apparent theoretical simplicity, fraught with difficulty when applied in practice. This is particularly the case when considering banking (both retail and commercial); the large number of products and channels available to customers adds to the complexity of calculating lifetime value. However, in a time when some traditional revenue streams are declining, we argue that it is more important than ever to understand your customers, and how they drive the value you can deliver to shareholders.

### **What is customer lifetime value?**

Judging from the textbooks, and our experience with many clients, customer lifetime value is a pretty slippery concept. It is defined and calculated in a wide variety of ways - as the sum total of a customer's gross or net revenues to date; the individual profitability of each customer after the deduction of appropriate costs and overheads; the projected value of a customer over their entire purchase lifecycle; the projected and potential customer value; or combinations of these, depending upon the balance between what is possible (mainly an IT issue) and desirable (partly Marketing, also financial/actuarial). However, the following elements seem to us to be the minimum necessary to both understand and manage value:

- Historic Value - the value of all transactions between you and the customer to date.
- Current Value - the value of all expected transactions, assuming existing customer behaviour patterns are unchanged.

- Potential Value – the realisable value if the customer can be persuaded to increase future spending by changing behaviour patterns.

Such definitions raise many questions, not least ‘who is the customer?’ In the past, this definition has been complicated by the failings of legacy systems; financial services providers have often struggled to match products bought by the same person at different times, from different business units. On the corporate side, customers may be businesses, departments or operating units. Agreement on a definition is fundamental – but it can be any term you choose, so long as usage and the data sources are consistent.

### **What is ‘value’?**

This is the second obvious question - what do we mean by value? Consider the business whose primary objective is to retain the most valuable customers and protect them from competitive poaching. Is it relevant to consider the sunk costs of customer acquisition? Or what if the objective is to maximise cross-sales? Does the value of previous, core business sales matter? Maybe you have a business with high fixed costs. Is it fair, appropriate or reasonable to allocate a proportion of such costs against the value of each new customer acquired? Consider also a typical banking organisation. A mix of different channels will be used for customer acquisition and servicing; how should the costs of these be allocated appropriately?

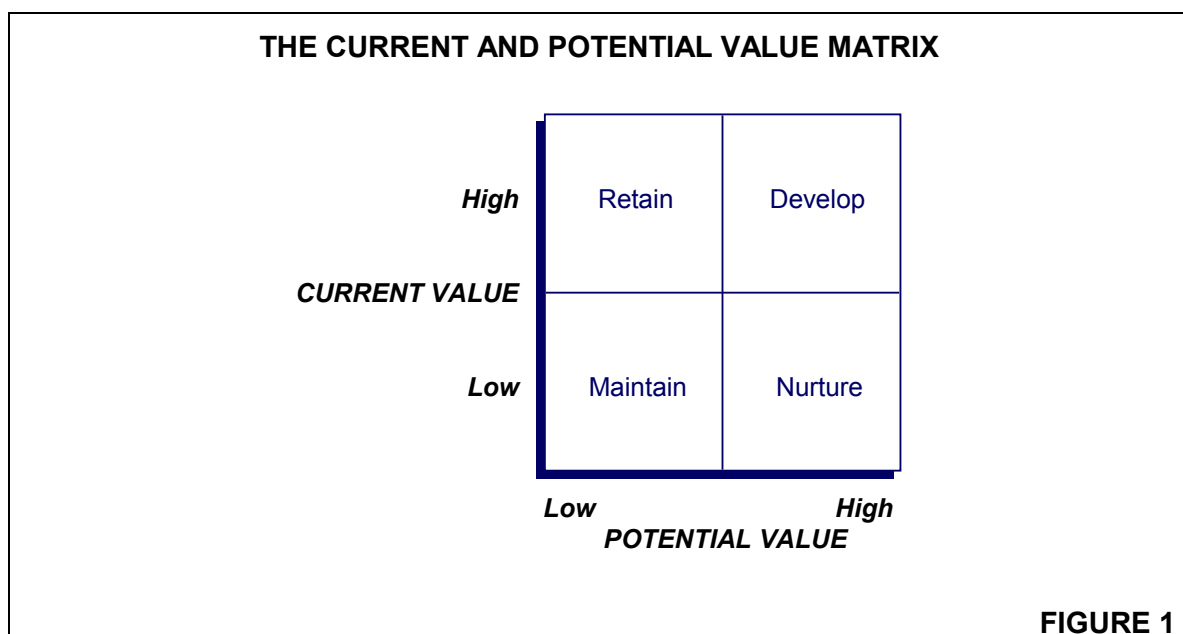
The most important observation is that ‘value’ is a relative concept and will vary depending upon your business objectives and industry dynamics. This ambiguity is the cause of most of the difficulties experienced. Without a clear framework and set of objectives, every calculation will be wrong for somebody within your organisation and you will remain mired in politics, almost from day one.

One life assurer client was intrigued by the possibilities of segmentation and customer management. However, the actuaries, financial staff and marketers all had different objectives and perspectives. It took three months to agree a definition and calculation of customer lifetime value that was acceptable to all but consensus was eventually achieved. This has enabled the company to apply value-based segmentation across the entire customer base. The exercise has already resulted in increased profitability through more effective targeting.

Notwithstanding the above, there is generally less concern about the past than the future. The fact that a customer has been consistently profitable in previous years is probably of less use and value than the forecast that they will remain so. Similarly, most organisations offer multiple products or services, and so future cross-sales or up-sales are a key driver of profitability.

### Where do we go from here?

The touchstone for a useful definition of value must be the extent to which better business decisions can be made using it. In other words, what will you do differently once you have calculated it? To drive strategies and plans, the calculation of customer lifetime value must begin with an analysis of what we have called current and potential value, as illustrated in Figure 1.



Each box in the matrix describes a value, and indicates a strategy or action (depending on the type of plan you are developing). For example, customers with high current value, but low potential value, are obviously worth retaining. However, the scale of your investment in building future cross/up-sales should be carefully controlled; so you shouldn't invest in a substantial new sales or service facility just for them.

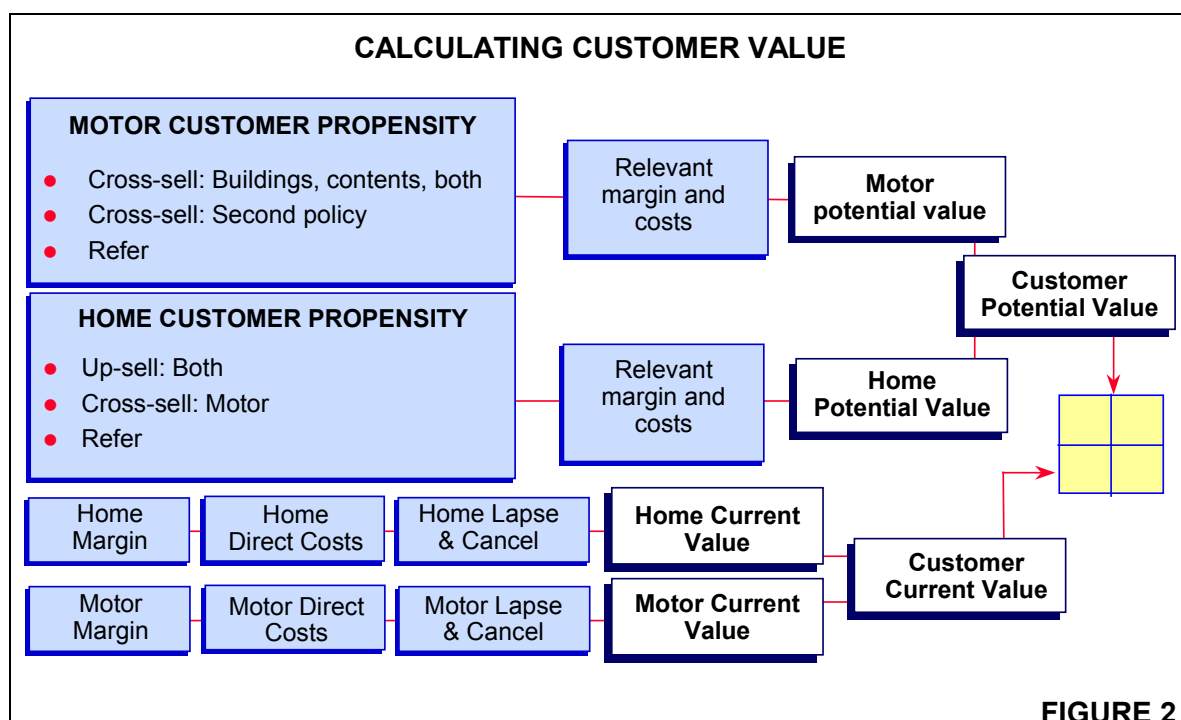
Obviously, the way in which you will choose to manage a high value, recently acquired customer will be very different to your management of a customer of the same value who is already a proven loyalist, or one showing signs of dissatisfaction or defection.

## How is it done? - the mechanics

It is impossible, within a paper such as this, to provide a detailed instruction manual for the calculation of customer lifetime value. However, it is possible to give some guidelines and examples.

Let's start with current value. This calculation is dependent on your measurement of past transactions and, importantly, on your analysis of where each customer is on their purchase lifecycle. This, in turn, is dependent upon understanding attrition patterns, and identifying and differentiating between the characteristics that determine purchase and lapse behaviour.

Then there is potential value, which will depend upon your product or service portfolio. For example, the potential value of a business airline passenger might be their propensity to upgrade their usual flying class or use the airline for leisure purposes. For a bank, it might be the customer's propensity to take an overdraft or a loan or start a savings account. For a credit card issuer, it might be the likelihood to use the card more frequently, increase the incidence of roll-over credit usage or recommend a friend. A general insurer we have worked with faced all these issues and decided to calculate customer value as illustrated by Figure 2.



The company had two main products, motor and home insurance – both of which could be sold individually, cross-sold or up-sold by, for example, adding a further driver to the motor policy or increasing the value of household contents cover. The key business objective was to increase the profitability of the existing customer base and so it was decided to ignore the costs of customer acquisition in the current value calculation. The components of current value were:

- The margin realised on the sale of each product. This, in turn, was agreed to be a function of the premium income (ie the price paid by each customer) less the costs of all claims, plus administrative overheads incurred as a direct result of such claims.
- Less the direct costs relating to ongoing customer maintenance, such as the costs of customer service and policy renewal.
- Multiplied by the expected purchase lifecycle; which was calculated by determining propensity to lapse or cancel based upon the historic attrition patterns of similar customers. It was agreed that a maximum of five years would be used because the environment was simply too uncertain to make investment decisions based on longer term income assumptions.
- Brought back to today's value, using a discounted Net Present Value.

Potential value was determined using propensity modelling. The principles were the same for each product and included calculations based on the customer's likelihood to:

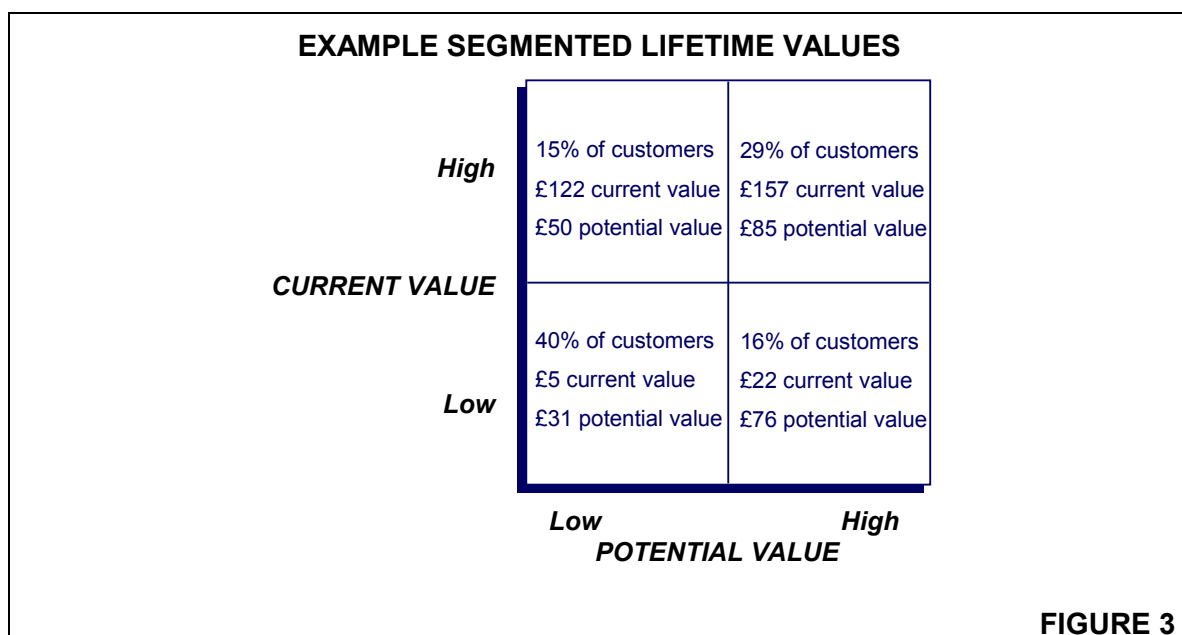
- Buy a cross-sold product, such as a motor customer purchasing a home insurance product.
- Buy an up-sold product, such as a second policy.
- Refer a new customer. This company had thoughtfully identified all policyholders acquired via direct customer referral so it was able to factor the lifetime value of recommended customers into the future potential value.

The propensity models were then overlaid with margin and cost to generate potential value. The benefits were significant. Detailed information about the value of each segment showed

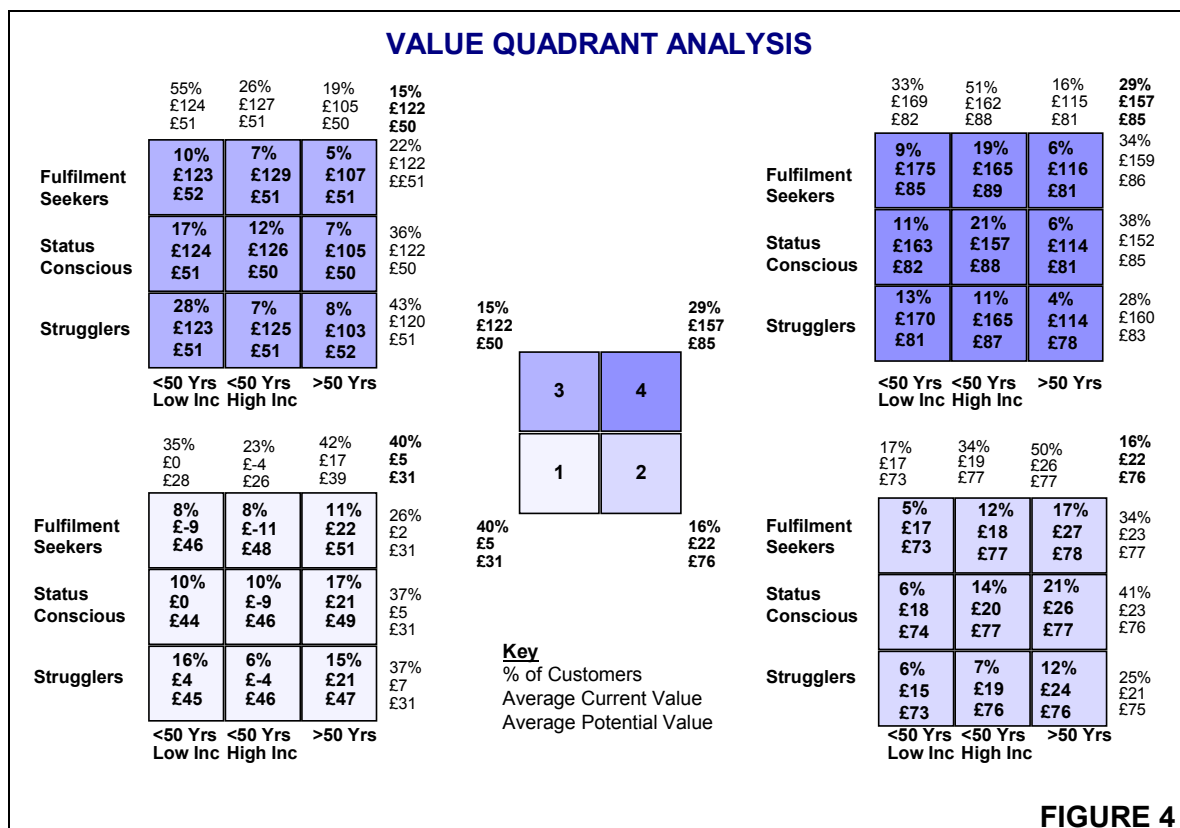
that too much effort had been devoted to competing on price for the most disloyal customers, who were most likely to make expensive claims; while several other high value target sectors had been neglected. Immediate changes were made.

**So does customer lifetime value matter?**

Yes - because no business has unlimited resources and so must allocate what is available, on some rational basis. Product or service type does not qualify, as these are not tangible; only customers are sufficiently tangible and definable to form the basis for resource allocation. Take the example of another client, which trades in a commodity marketplace. While analysing customer lifetime value was seen to be important, it was believed that advantages would only be realised if investment allocation decisions could be reinforced through enhanced customer insight, such that propositions and messages could be tailored. The initial analysis is shown in Figure 3.



A fascinating picture emerged. 40% of customers had a current value of £5 and a potential value of £31. Conversely, nearly one-third of customers had a combined value of over £240. Quite obviously, each customer group demanded differing levels of investment. The analysis became particularly powerful, however, when attitudes, age and income were overlaid, as shown in Figure 4.



At a stroke the possibilities for differentiation became obvious. Each sub-segment had different personal needs demanding different propositions, styles of communication, and service levels.

### Leaping the barriers – obstacles to overcome

So what are the pitfalls and problems associated with the calculation and application of customer lifetime value? The first, and most frequently encountered, is the specification of objectives. The calculation of lifetime value for customer acquisition purposes may be very different to that for customer retention, or up-sales, or cross-sales. Indeed, it may be necessary to calculate and employ a variety of different models depending upon the use that is to be made of the resulting information.

The second problem relates to organisational commitment. Managers are often very excited by their calculations, and the strategies that they suggest. However, other staff must also be convinced of their validity, before customer-focused plans, and the resources required to implement them, become available. Unless Customer Service staff are committed to recognising the differences between customers, understanding their role in servicing them appropriately and having the necessary tools and skills at their disposal, the effort will have

been worthless. Very often this depends on access to information, which can be, or become, a systems issue. How do other functions within the business build the lifetime value knowledge into their activity? Call centre teams must be able to 'see' the segment on their screens, and to take the necessary action, through a tailored offer or a different style of script.

The third pitfall is the management of data and the information structure within the whole business. If the lifetime value exercise is not to be a one-off event, plans must be made for the continued collection of the relevant data and its storage and manipulation. New database technology may be required, or different approaches to data-warehousing and mining. Issues of specification and the assessment of cost-effectiveness immediately appear.

The fourth problem concerns the inability of legacy systems to cope with the resulting complexity. Quite obviously, even if your analyses result in a relatively small number of discernible customer segments, each must be managed in different ways if their value, and potential value, is to be realised. Unless the systems are in place to support the various strategies required, the work will have been in vain.

The fifth obstacle concerns the psychology of project management more than any tangible obstacle – it is the desire for absolute accuracy. It is impossible to be absolutely certain of all the costs and all the revenues, and it is far more important to ensure a consistent approach and to consider the relative differences between customer values.

For example, if one customer, or group of customers, has a current and potential value of £2,000, whilst another has a value of £300, the relative difference is enough to make the necessary decisions, even if both calculations have a possible error margin of +/- 20%. Whilst absolute accuracy becomes more important the closer the various customers or segments are in value, the realities of the Pareto Principle will ensure that there is usually sufficient difference upon which to base informed decisions.

### **Conclusion - the benefits of customer lifetime value analysis**

Despite the problems and pitfalls, our experience is that the benefits will almost invariably make it worthwhile. The discipline as well as the act of calculating customer lifetime value:

- Enables resource and investment allocation decisions to be made with greater certainty, and targeted at those customers that will generate the greatest value for the organisation and its shareholders.
- Forces the recognition that not all customers are equal. Not only do they have different values, but they also have different needs and characteristics. When combined, the opportunities for the creation of differentiation and competitive advantage are immediately more apparent.
- Provides greater unity and co-operation across the business by establishing a common base for decision making, eg by involving financial staff in the specification and calculation of value; and the marketing team as value creators.
- Stimulates innovation, by forcing managers to confront the differences between customers, thereby fostering a spirit of greater customer orientation within the entire organisation.
- Allows budgets to be set for each customer value segment in recognition of their differing levels of profitability.