CALCULATING THE ECONOMIC VALUE OF CUSTOMERS TO AN ORGANISATION

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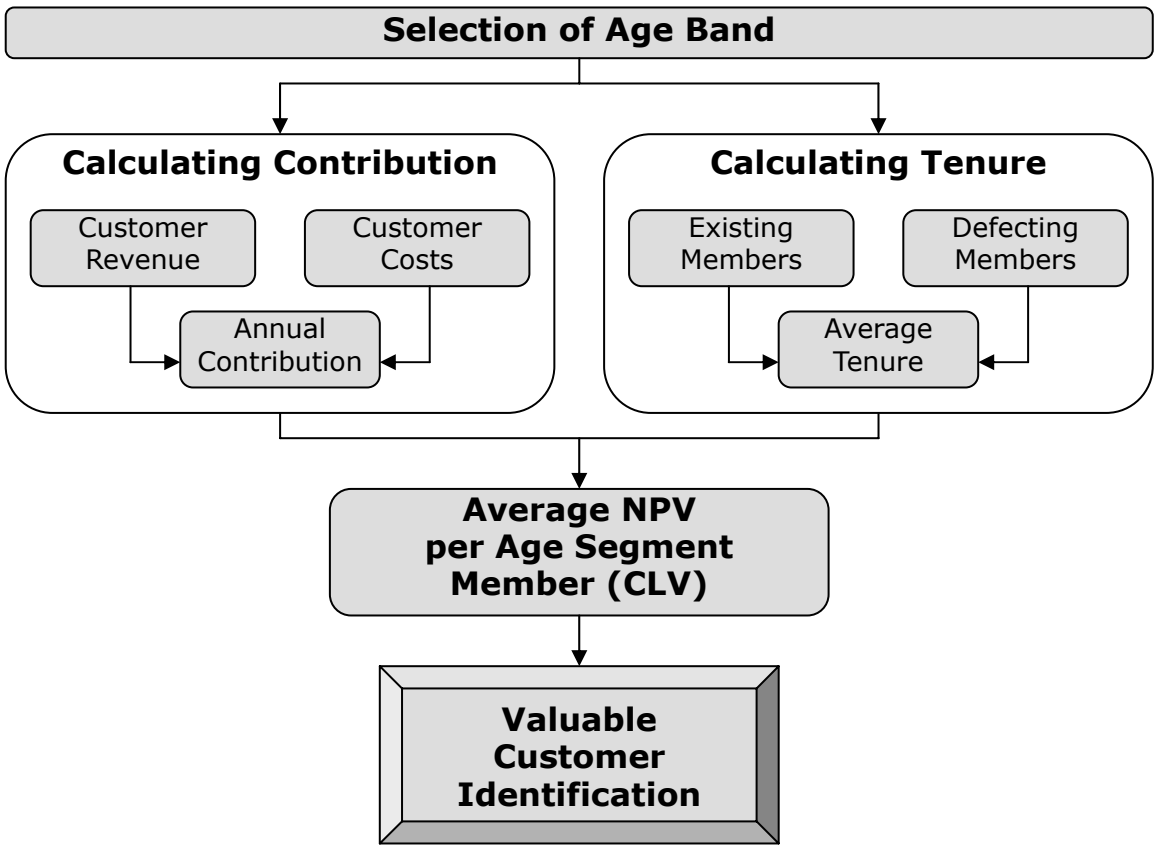
Three case studies from Australasian service organisations explore the economic value of customers to an organisation (EVCO). Customer lifetime valuation, a form of discounted cashflow analysis, was used in two of these organisations. Customer profitability analysis, a form of activity-based costing, was used in the third. Insights arising from the measurement of EVCO changed the management of customer relationships — new pricing strategies were introduced and loyalty and product cross-holdings were rewarded, for example. It is interesting that there was little or no involvement by the accounting function in the calculation of EVCO.

Day and Fahey (1990) narrate a salutary tale about the importance of customers to an organisation. They tell the story of Schlitz Brewing:

> *In the early 1970s, Schlitz reduced brewery labour per barrel, switched to low-cost hops, and shortened the brewing cycle by 50%. Its costs were the lowest in the industry. To the great pleasure of shareholders, profits soared, and the market applauded. By 1974, the stock price had risen to $69.*
>
> *Consumers were slow to react to the degradation of product quality, but by 1976, complaints were continual and market share was slipping. That year Schlitz destroyed ten million bottles of beer that failed QC tests. In 1978, Schlitz management tried to get its quality back on track, but consumers had such a low opinion of the product that the company couldn't recover. By 1981, Schlitz's market position had fallen to number seven from number two in 1974, and its stock price had dropped to a mere $5 (Day and Fahey 1990, p. 157).*

The Schlitz Brewing story illustrates the importance of creating customer value (CV) — the provision of "product quality, service quality, and value-based prices [that] are in harmony and exceed customer expectations" (Naumann, 1995, p. 15). An organisation must confer value on its customers if it wishes to retain existing customers and acquire new ones. Customers generate the operating cashflows that drive the economic value of an organisation (Rappaport, 1986), providing resources for innovation and the satisfaction of the needs of other stakeholders (such as shareholders, suppliers, employees and the community).

FIGURE 1: CALCULATING THE VALUE OF CUSTOMERS AT HEALTH



It is not surprising, therefore, that organisations are devoting considerable resources to the attainment of competitively significant improvements in CV (Gale, 1994). Investments are being made in continuous improvement programs, quality-function deployment methods, knowledge repositories and the management of customer relationships. Nonetheless, if an organisation is to avoid a situation of "profitless prosperity" (Goodman and Petty, 1996, p. 2), these investments in CV must generate some form of economic benefit for an organisation. Customers must, in turn, be valuable to an organisation.

Consequently, there is a realisation that management information systems (MIS) need to become increasingly customer-focused in order to account for the economic value of customers to an organisation (EVCO). Who are the customers or segments that create economic value, paying a price in excess of the cost of the product and its marketing and sales support? Who are the customers or segments that erode the economic value of an organisation, consuming organisational resources in excess of the price paid? More particularly, how much value does a customer or segment generate or destroy? Traditional product-oriented MIS may be unable to provide ready answers to such questions (Bellis-Jones, 1989; Ward, 1992). An emerging challenge is the design of MIS that recognise the customer, as well as the product, as an object of the measurement process.

This paper outlines how EVCO is calculated in practice, as there is little empirical evidence on this[1] and reports on the findings of an exploratory field study of three Australasian service organisations.

The Literature

The literature advocates two distinct approaches to the calculation of EVCO. The contemporary management accounting literature supports the use of customer profitability analysis (CPA), a form of activity-based costing. The marketing literature champions the use of customer lifetime valuation (CLV), a type of discounted cashflow analysis.

CPA: Using activity-based costing to calculate EVCO

The management accounting literature recognizes that some customers generate more economic value than others — that is, some customers are more profitable than others (Hilton, 1997). In the past, however, management accountants have calculated EVCO in a very approximate way. Customer profitability was determined by an allocation of selling, general and administration costs (SG&A). For example, if a particular customer generated 30% of total sales revenue, then 30% of SG&A was allocated against the gross margin generated by that customer.[2]

Such pro-rata allocations are insensitive to the actual level of service-oriented resources that a customer consumes. CPA, the method currently advocated in the management consumers. CPA, the method currently advocated in the management accounting literature (Cooper and Kaplan, 1991), uses activity-based costing to attribute differences in customer profitability to differences in the ways in which customers or segments consume SG&A resources. In particular, CPA seeks to cost and trace customer-driven activities, such as purchasing, delivery, accounting and inventory management (Smith and Dikolli, 1995), to measure EVCO more accurately.

When CPA is adopted, EVCO is measured in two stages.[3] Howell and Soucy (1990) describe this:

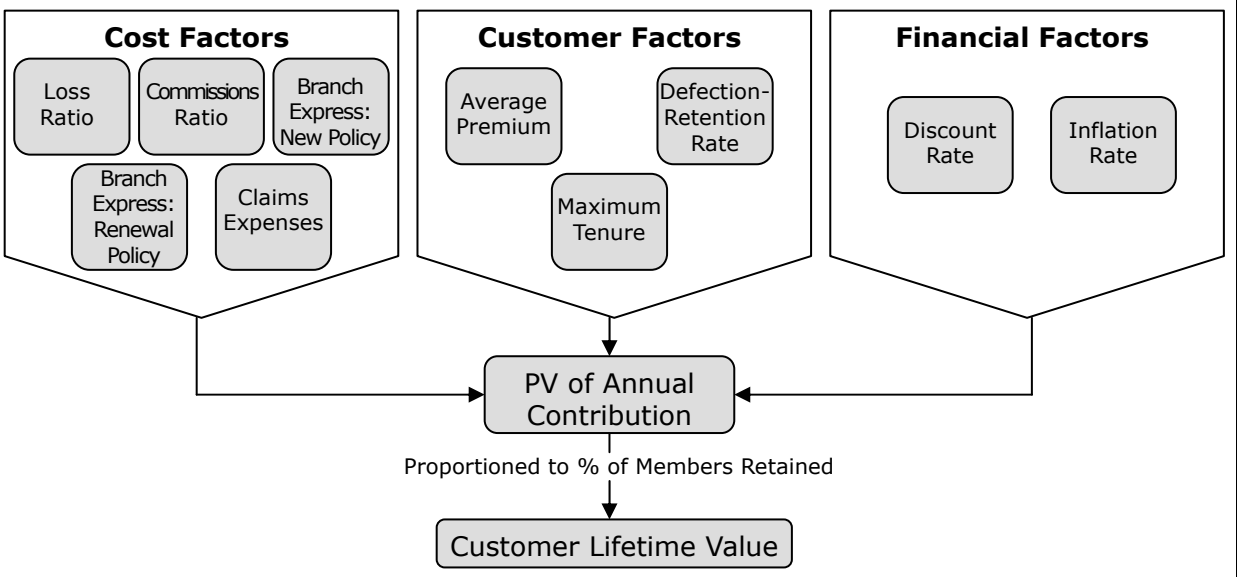
> *This analysis is developed by first assigning the costs to products. Customers who purchase high-cost products are charged properly by applying the costs against the customer's mix. The second step is to assign to customers expenses and assets that are driven by the marketing and sales process. The result will be the total cost associated with a customer. This cost is compared with the customer's revenue stream to establish [customer] profitability (p.44).*

In brief, a historical measure of EVCO emerges from the use of CPA. It informs management about the profitability, or otherwise, of customers or segments during a prior accounting period.

CLV: Using discounted cashflow analysis to calculate EVCO

The marketing literature sponsors the use of CLV to calculate EVCO (Reichheld, 1996). CLV measures the present value of the future net cashflows expected to be received over the lifetime of a customer relationship.[4] Four general steps are followed to calculate CLV: first, customers or segments are identified; second, their current profitability is assessed; third, current profitability is projected to estimate future cashflows; finally, these expected cashflows are discounted over an organisation's planning horizon to arrive at their net present value. Customers and segments that generate a positive net present value are considered to be economically valuable to an organisation.

FIGURE 2: CALCULATING THE VALUE OF CUSTOMERS AT AUSTINSURE



Reichheld (1996) argues that two value drivers, a "customer volume effect" and a "profit per customer effect", influence EVCO. The customer volume effect indicates the importance of customer acquisition and retention rates (see Reichheld, 1996, p. 37). It is argued that EVCO increases with customer volume because there are greater opportunities for sales as the customer base grows and as the period of the customer relationship lengthens. The profit per customer effect characterises those factors that affect the magnitude of EVCO — acquisition costs, base profits, revenue growth, operating costs, referrals and price premiums.

EVCO is assumed to grow over the lifetime of a customer relationship. It is argued that more loyal customers:

- Purchase a greater array of products/ services;
- Are more efficient and cost-effective in their relationship with an organisation;
- Are more likely to generate new business through referrals;
- Become increasingly price-insensitive over time; and
- Enable the amortisation of acquisition costs over a longer period.

The literature on CLV promotes a different measure of EVCO from that contained in the management accounting literature. CLV generates a future-oriented and multi-period measure of the economic value of customers or segments.

The Research

This study explores the measurement of EVCO in three Australasian service organisations: Health Ltd., Austinsure, and ABC Bank.[5] Health Ltd. is a prominent and established firm in the health insurance sector. It is a not-for-profit organisation highly regarded for a dedication to its customers and an impressive claims payout ratio. Austinsure is one of the top 10 insurers in Australasia. Its core business is general insurance and workers' compensation plans. ABC Bank engages in retail banking, commercial banking, treasury, and financial markets.

A consulting firm specialising in customer loyalty programs (referred to as LoyCon) negotiated access to two of these case organisations. One of the authors arranged access to the other site.

The data were collected in 1997. Semi-structured interviews were used. A standard set of questions was prepared but the extent of reliance on these questions varied from interview to interview, particularly in the follow-up stage. Up to five interviews were conducted in each organisation. The first interview lasted about two hours. Other interviews were of 60 to 90 minutes' duration. Interviews were taped and transcribed. (Refer to Appendix A)

Each case description[6] contains the background to the customer reporting project, the process of calculating EVCO, key data-related issues, the involvement of the accounting function, and the organisational insights and outcomes enabled by the calculation of EVCO.

IT IS ARGUED THAT EVCO INCREASES WITH CUSTOMER VOLUME BECAUSE THERE ARE GREATER OPPORTUNITIES FOR SALES AS THE CUSTOMER BASE GROWS

Case 1: Health Ltd.

Background

> *We have traditionally used contribution, which is the premium that we have received in a 12 month period less the claims that we have paid for that member. Now obviously there is another factor in there, which is our overhead or administration cost. As a percentage, our overheads are around about 8% or 9% historically. So we have traditionally ignored overhead when we have looked at customer value, because we have said it is more relevant to look at the biggest cost component of what drives profitability which is, in fact, our claims (marketing manager, Health Ltd.).*[7]

Until the intervention of LoyCon in Health Ltd., this not-for-profit organisation calculated EVCO in a relatively simple way. The value of customers was measured in terms of their annual financial contribution only. The costs of marketing, sales and support were not allocated to the customer. It was considered that Health Ltd. "didn't really understand the value that their customers created". However, this situation changed as Health Ltd. encountered "smart new competitors". Health Ltd. explored the use of CLV under the guidance of LoyCon.

Calculating EVCO[8]

"If you looked at the different customer segments, you got a very different answer on the value of them if you looked at lifetime value" (consultant, LoyCon).

The general process of calculating CLV in Health Ltd. was based on the present value of lifecycle net contributions. This process is outlined in Figure 1. Each of the key elements in this process is discussed below.

Defining contribution — The customer base of Health Ltd. was segmented into five-year age bands. For each age band, an average annual contribution was calculated using the past three years' data.

Revenue — Because of the limitations of Health Ltd.'s MIS, customer revenue per se could not be utilised. Accordingly, a proxy was used. The proxy was the premiums attributable to a customer according to the type of cover and age bracket.

Costs — Claims made by members were the major element in Health Ltd.'s cost structure. Actual claims were used.[9] Operating costs were not considered because they were relatively small and a sophisticated system of cost assignment would have been needed to enable their allocation to segments.

Annual contribution — An average annual contribution per member for each age segment was calculated. An individual's claims per year were subtracted from the average premium attributed to that member for the year. Individual contributions were aggregated and averaged to derive the average member contribution for an age segment.

Defining tenure — The average remaining tenure of customers in each age segment was estimated based on historical defections.

Combining contribution and tenure: customer lifetime value — The last step in calculating CLV was the combination of contribution and tenure. This involved discounting the annual contribution for an age band over the average remaining tenure for that age band. As members shifted to subsequent bands, the average contribution used related to the new age band.

Deep segmentation — Once the average CLV for each segment was determined, a deeper examination was conducted in each age band to identify members whose value to Health Ltd. was significantly different from the average. This led to the examination of strategies to concentrate investment on those sub-segments that represented the greatest value to Health Ltd.

AS A RESULT OF USING CPA, ABC BANK ACQUIRED INFORMATION THAT IT DID NOT POSSESS PREVIOUSLY. IN PARTICULAR, CPA SHOWED THAT THE BANK WAS HEAVILY RELIANT ON A SMALL PROPORTION OF ITS CUSTOMERS TO GENERATE MOST OF ITS PROFITS.

Data-related issues

"What we were struggling with when [LoyCon] came on board was the issue of our data" (marketing manager, Health Ltd.).

Health Ltd. confronted a number of practical problems in obtaining the data required to calculate CLV. For example, Health Ltd.'s accounting system did not enable operating costs to be traced to particular customers. Child members (who were often members free of charge) presented particular problems in conducting the analysis. Further, the timing of claims and the changing of plans by members made it difficult to collect accurate data.

A number of more general issues affected the accuracy and accessibility of customer-related financial data in Health Ltd. First, while Health Ltd. was good at collecting "a fortune" of data, a large amount of this was never used because of limited understanding within the organisation of its usefulness. Second, because of the volume of information that Health Ltd. collected, storage space on the existing computer databases was at a premium. Much information was therefore microfiched and archived. Information stored in this way was difficult to use for analysis. Third, there was a problem of incomplete

data: fields were often left blank when customer applications were being processed and valuable details were absent as a consequence.

Health Ltd. had begun to address these data-related difficulties, initiating a database that compiled all customer relevant information in one system. Also Health Ltd. established a new liaison role between marketing and MIS to facilitate a common understanding of the information required for CLV.

IT IS SURPRISING TO NOTE THE NEAR-ABSENCE OF INVOLVEMENT BY MANAGEMENT ACCOUNTING PRACTITIONERS IN DESIGNING AND OPERATING CUSTOMER-FOCUSED MIS

Involvement of the accounting function

"We use the accounting team to validate some of the work that we are doing on customer value. So there is some involvement to that extent [but] it is limited" (marketing manager, Health Ltd.).

The accounting department in Health Ltd. was only "peripherally" involved in the process of calculating CLV, being more focused on financial reporting. The calculation of CLV was conducted by a project team from marketing There seemed to be little expectation that the role of accounting would evolve beyond that of verification.

Insights and outcomes

"There's a refocusing within the organisation on customer loyalty and customer retention" (marketing manager, Health Ltd.).

As a result of the calculation of CLV, perceptions of customers changed within Health Ltd. Older customers were found, on average, to be valuable; they were more loyal and more likely to purchase more products from Health Ltd. Consequently, the pricing structure was changed to reflect the varying profitability of five-year age bands. (Prices were previously set for three age bands: 0-18, 19-64 and 65+.) More emphasis was placed on understanding the claims profile of each customer group. A data-mining expert was employed to distribute CLV information in a decision-support system so that day-to-day practices and strategies would reflect the value generated by the customers.

Case 2: Austinsure

Background

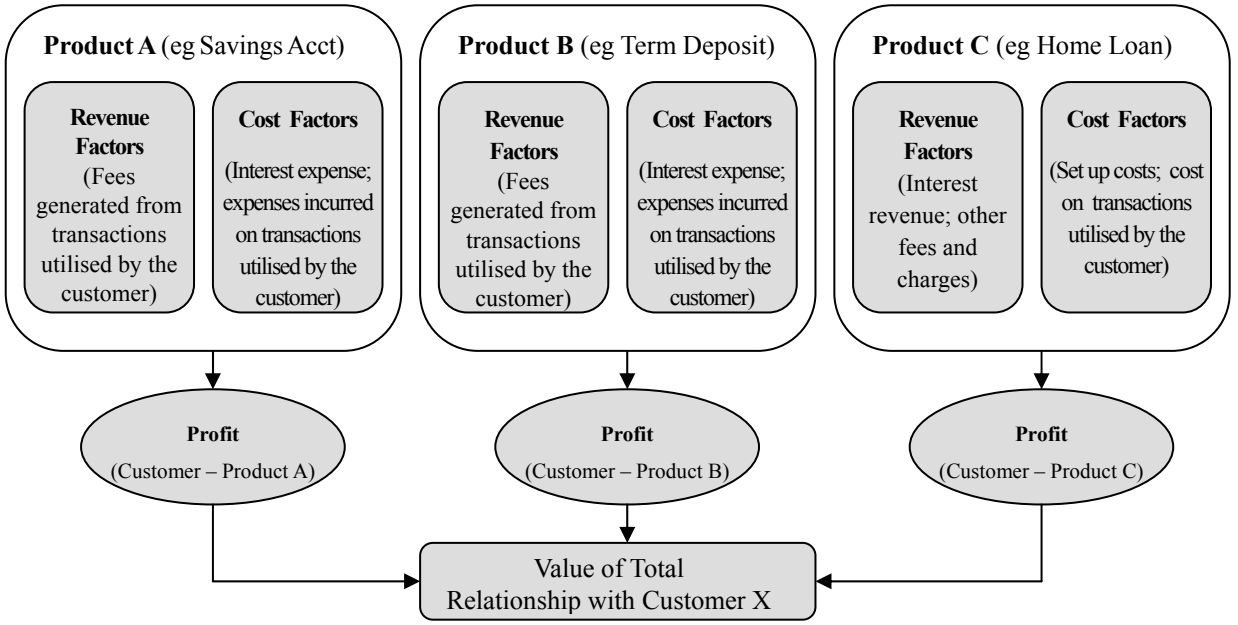
The first time that we really started to look at a value over a lifetime of a customer was when we started looking at the direct area — when we sell direct to the public. We spend $80-$100 at the moment to acquire a customer direct and in the second year we don't pay that again, it might cost us $5 to maintain that customer… So it is natural our attention turns to try to retain our existing customers — and that is where lifetime valuation comes in (channel manager, direct).

Traditionally, the core of Austinsure's business had been derived from the "broker channel" which had a flat commission-based cost structure. The only form of customer analysis was the calculation of customers' annual contribution.[10] It was not until Austinsure established a direct channel for the sale of its products that there was any interest in a more sophisticated representation of the economic value of particular customers or segments. LoyCon was engaged to help obtain this information.

Calculating EVCO[11]

"It is just too simple a concept, really. It is a simple concept but bloody hard to implement" (channel manager, direct).

FIGURE 3: CALCULATING CUSTOMER PROFITABILITY AT ABC BANK



To demonstrate the process of calculating EVCO, the financial institutions channel manager of Austinsure provided an illustrative example in relation to its domestic motor vehicle product (see Figure 2).

A number of factors indicated in Figure 2 — average premium, loss ratio, commission ratio, defection rate, branch expenses and claims expenses — were determined by extracting data about customers in a particular segment over the previous 10 years. A 10 year average was then found for each of these factors. These items were netted off to calculate an annual underwriting contribution, which was discounted to find a present value which, in turn, was multiplied by the proportion of customers retained by Austinsure in a year. The resulting figures for each year were summed to derive the net present value for a customer segment. This process was performed on a product-by-product basis because Austinsure did not have the ability to examine a customer over its portfolio of products.[12]

Segmentation — The customer-segmentation variables used by Austinsure varied according to the type of product being analysed. In terms of the domestic motor product, the key segmentation variables were age, tenure and driving record. With respect to age, customers were segmented according to 10-year age bands, except for drivers under 25, and those over 65. For tenure, customers were categorised into annual tenure bands, unless a customer had been retained by Austinsure for more than 11 years. Last, four categories were devised to capture customers' driving records. These were: first, clients with a no-claim bonus (NCB) of less than 60%; second, customers who have held a maximum NCB for up to two years; third, customers who have held a maximum NCB for up to four years; and, fourth, customers who have held a maximum NCB for more than five years.[13]

Data-related issues

> *This is like drawing teeth, getting information off our system. It really is. The reports that come off the system, and the inquires that we make, don't facilitate this sort of analysis. And even where we dump information into a package, like a statistical package, that really facilitates pushing things together and manipulating them, it is still hard for us to do (channel manager, direct).*

Austinsure was forced to confront a number of inadequacies in its MIS as a consequence of calculating CLV. For example:

- Austinsure was unable to track customer-related data over time when there was a variation in a policy (when an existing client bought a new car, a new policy was issued and historical information was lost);
- Customer data were collected in branches and all customer data, including tenure information, were lost when branches closed or merged;
- Sales representatives skipped the collection of certain information in an attempt to provide quick service, again losing valuable information about a customer relationship; and
- Austinsure had seven different information systems and there was no unique identifier (such as a customer number) to store customer-related information in these different systems, thus making it difficult to measure the value of a customer as a whole or the benefits of cross-product holdings.

However, during the course of the study, Austinsure started to address these data-related difficulties. Head office instructed branch personnel on the value of customer information and mandatory data input fields were being implemented at the branch level. Also, a large project team was assembled to work on the integration of Austinsure's branch and other information systems.

Involvement of the accounting function

"The accounting area would look at you blank" (channel manager, direct).

"We always look towards the past" (management accountant).

There was almost no involvement of the accounting function in the calculation of CLV at Austinsure. Yet marketing was keen for accounting to become involved and to assume responsibility for the collection, calculation and coordination of CLV. This would enable marketing to concentrate on customer-focused strategies.

While the management accountant interviewed was willing to be more involved, he felt constrained by the culture and resourcing of the accounting function. Accounting had had a historical orientation in Austinsure. Further, the calculation of CLV was perceived to require significant new skills that the accounting function was unable to resource.

Insights and outcomes

> *So what we have done as a result is — we have identified the segment of customers which are most valuable, both in our own book and in other companies' books, and basically structured the pricing mechanism which will defend our existing customer base and attempt to gain customers who fall into that segment from other organisations (channel manager, institutional).*

Two main insights were attributed to an ability to calculate CLV in Austinsure. First, the importance of customer retention was demonstrated in a tangible way. The cost of acquiring new customers was shown to be 20 times that of retaining existing ones. It was also revealed that Austinsure lost money on its

customers in the first year. Second, the calculation of CLV showed that value-creating customers held more than one Austinsure product. As a result, Austinsure focused more directly on customer retention strategies and loyalty bonuses were offered to customers for product cross-holdings. The CLV project was also used to drive new pricing strategies that were sensitive to the amount of value customers generated.

Case 3: ABC Bank

Background

> *I guess historically the bank has had a product focus. When we introduced a data warehouse into the bank in 1994 that actually initiated the bank to understand the typical relationship of a customer with us. That has led to the bank restructuring and changing its approach in marketing to customers (database manager).*

It was the introduction of a "data warehouse" in 1994 that both challenged and enabled ABC Bank to introduce a customer-focused MIS. In the residential loan segment of the Australasian retail banking market, this bank, along with others, was experiencing increased competition from new and aggressive mortgage originators.

ABC Bank was keen to retain the business of its valuable customers. It was also seeking to "deepen" its relationship with these valuable customers. However, before the introduction of its data warehouse, ABC Bank had been unable to calculate the value of a customer. Its focus had been on product profitability. A new portfolio manager brought a "customer profitability" focus to ABC Bank.

Calculating EVCO

> *What we do is measure the cost of about 60 different transactions on an activity-based costing approach. Two customers, who might have the same product, and have the same balance in that account, if they had different usage patterns [they] will have a different profitability. What that really meant to us was that we were able to generate this customer profitability curve, and we ranked our customers from the most profitable customer down to the least profitable customer. What it was telling us was, basically, we were reliant on 30% of our customers to generate 130% of our retail bank profit (database manager).*

In contrast to the previous two case studies, ABC Bank used activity-based costing (CPA) to calculate EVCO.[14] The process is represented in Figure 3.

CPA involves a comparison of customer-driven revenues and expenses to determine the value of a customer relationship. In all, more than 60 customer-related transactions were employed by ABC Bank in this analysis. Interest income, interest expense, fee income, fee expense, operating costs, overhead, marketing expenses and bad debts were attributed to customers to determine their profitability.

The initial cost allocation and profitability calculations were performed using a computerised financial model. This information was then stored on the customer database and downloaded into spreadsheets to consider the impact of various customer incentive and product mix scenarios. In conjunction with this, customers were further examined by demographic variables to determine their potential value to ABC Bank.[15]

Segmentation — Because of the flexibility of ABC Bank's data warehouse, CPA was conducted on either a segment or individual basis. Customer-segments were characterised in terms of both demographic variables and economic value.

Data-related issues

"The activity-based route doesn't really reconcile neatly to the general ledger, so that is always one source of tension" (database manager).

ABC Bank enjoyed the benefits of a relatively modern and advanced information-processing capability. Bank staff perceived few problems with the data warehouse and its functionality. There was, however, a concern about the bank's ability to capture all the data considered relevant for CPA. ABC Bank wanted more information about its customers but there is a limit to the number of questions that a (potential) customer will answer.[16]

ABC Bank found it necessary to supplement its customer profiles in less intrusive ways. For example, customers' postcodes were related to average data from the Census of Population and Housing compiled by the Australian Bureau of Statistics. Similarly, customer surveys and industry research were used. However, these sources provided only aggregate customer-related information.

The most acute data-related issue that ABC Bank experienced was the variance between total profitability in the CPA system and the general ledger. This variance could be as great as 15%. This was a source of constant "tension" within the bank and there was a push to devote more resources to the reconciliation of the two differing profit calculations.

Involvement of the accounting function

> *"The [database manager] is doing her own ABC analysis. I don't know that they are necessarily accounting-qualified people but they are certainly people with a high level of analytical skills" (financial controller, retail banking).*

The calculation of CPA at ABC Bank was implemented and operated by marketing personnel, such as the database manager. The accounting function had a very limited involvement. According to the financial controller, the accounting function was "reviewing" the CPA calculations from a "reasonableness" perspective only.

Insights and outcomes

"We knew the customers that we absolutely have to hold on to and look after" (database manager, ABC Bank).

As a result of using CPA, ABC Bank acquired information that it did not possess previously. In particular, CPA showed that the bank was heavily reliant on a small proportion of its customers to generate most of its profits. It was found that 25% of customers generated about 130% of profits. Approximately 70% of customers were "break even" and the rest were unprofitable. CPA also demonstrated that the most profitable customers held a "portfolio" of products with ABC Bank.

The following changes were introduced as a consequence: first, increased resources were devoted to the development of marketing strategies that would increase the "share of wallet" from each customer; and, second, a new loyalty product was introduced offering discounts to customers who held mortgage products for a certain number of years. ABC Bank was also considering the implementation of a system to enable customer information to be distributed to tellers' screens for more effective relationship management "at the coalface".

Overall Benefits

In each of the three case organisations, it was perceived that the calculation of EVCO had been beneficial. Some of the perceived benefits were:

- An ability to see "the total customer";
- The provision of information that enabled a "deepening" of customer relationships;

- Informed calculations of the amount of "value" to return to customers in the form of loyalty schemes;
- The "proactive management" of customers;
- An increased sophistication in the ways that financial results were viewed;
- The implementation of "strategic pricing" decisions;
- An ability to "cherry pick" competitors' valuable customers; and
- The provision of a more "personal service" for valued customers.

And despite the absence of any concrete calculations, interviewees from these three organizations believed that they were "seeing a significant return on their investment".

Discussion

One insight from this study is a much-needed description of the practice of calculating EVCO. There is very little empirical research in this area. Also these cases provide a rare glimpse of practice in Australasian service organisations. This provides a balance to the emphasis that has emerged on case studies from North American manufacturing enterprises within the management accounting literature.

Second, in each of the organisations examined, EVCO played an important role in formulating a value proposition that mutually benefited both the organisation and its customers. By highlighting avenues of profitable value delivery, EVCO was pivotal in the way these organizations treated their customers. Through highlighting the heterogeneous profitability of each organisation's customer base and the importance of examining the overall customer relationship, EVCO affected a number of strategic decisions, ranging from product offerings and pricing to organisational direction and culture. While the cases illustrate the effect that EVCO has had in changing organisational perceptions of customers and customer-related strategies, it must be remembered that EVCO is only a tool to facilitate analysis and change. To be effective, the measurement of EVCO must be a part of a broader process of organisational change and resource management.

Third, in the two organisations that used CLV, it is interesting that the projections of future cashflows were based on historical accounting information. There was no indication, in either Austinsure or Health Ltd., that future cashflows were arrayed using the drivers suggested in Reichheld's (1996) work (such as operating cost savings, revenue growth and so on). A heightened awareness of these drivers may enable practitioners to achieve greater conceptual rigour and relevance in the calculation of EVCO.

Fourth, it is surprising to note the near-absence of involvement by management accounting practitioners in designing and operating customer-focused MIS. These processes were sponsored and sustained by marketing personnel, despite a call for the recognition of customers as a cost and profit object in the contemporary management accounting literature. Even more surprising is the championing of an activity-based costing system by marketing personnel in ABC Bank. These cases add anecdotal evidence to claims that many accounting practitioners are still overly concerned with transaction processing, rather than "value-adding" accounting work (Walther *et al*, 1997).

Fifth, these case studies further indicate the limitations that are confronted in customer-focused reporting. Product-oriented information systems constitute a substantial barrier to the calculation of EVCO. In each of the three organisations studied, customer

reporting emerged as a stand-alone process that operated in parallel with routine financial reporting. As more organisations are successful in implementing integrated information systems, it will be interesting to observe whether more complex and frequent valuations of customers emerge and what changes such calculations may bring to day-to- day processes and organizational strategies.

Finally, the cases illustrate the inherent irony that underpins the calculation of EVCO. It was through the impersonal process of reducing customers to an economic measure that these organisations were able to treat their customers as "individuals", providing a more personal service that matched customers' sociographic profiles.

Future Research

The issues raised by these case studies also point to opportunities for future research. Measures of EVCO are theoretically interesting because they herald the emergence of the "quantified customer" (Vaivio, 1999) — an "inscription" in databases and reports (Latour, 1987). As a result, a customer can now be managed "at a distance" (Latour, 1987, Miller, 1991) by decision-makers who are removed from regular contact with customers. Measurement systems are becoming as important as the encounters experienced by front-line staff in call centres and over the counter, for example, in managing customer relationships. More in-depth studies are required to outline the impact of customer-focused measures on organisational and management processes (see Ogden, 1997). Consequently, there are opportunities for researchers to theorise the rise of this "digitised" customer in contemporary organisations.

Second, researchers may also consider why it is that these economic measures of customers have emerged. There is a need for historical studies that outline the conditions that have made the measurement of EVCO possible (Hopwood, 1983). What political, social, economic and cultural factors have contributed to the receptiveness of contemporary business to this form of customer-focused financial reporting?

Third, there is a role for researchers to offer critical counsel on the ramifications of CPA and CLV (see Boyce, 2000), outlining the broader implications of the economic rhetoric and rationality that underpins customer relationship management. For example, what are the ethical implications of "managing" less valuable customers (for example, the low-wealth customers of banks or the chronically ill customers of health insurance providers)? Do organisations run the risk of implementing short-sighted strategies if they choose to view their customers as bundles of economic value only, rather than as members of a community that enables organisations to function and compete (Davies and Kay, 1997)?

Conclusion

This exploratory study has described how EVCO was calculated in three Australasian service organisations. Two case organizations used CLV and the other used CPA. The case studies indicated the difficulties that these organisations confronted, as well as the benefits that were derived from using EVCO in managing customer relationships. In the main, these cases attest to the innovativeness of practitioners in developing customer-focused reporting systems. This may spur other organisations to confront the task of implementing such systems. Likewise, academics are presented with new and interesting opportunities for research.

Appendix A: Summary of Interviews Conducted

The following table lists the participants interviewed in this study.

Case Organisation	Interviewee's Position
Health LTD.	• Consultant, *LoyCon* • Marketing manager
Austinsure LTD.	• Channel manager, direct • Channel manager, institutional & technology • Management accountant • Channel manager, direct
ABC Bank	• Database manager • Portfolio manager (retail banking) • Executive manager, finance projects & systems • Financial controller, retail banking • Portfolio manager (retail banking)

Notes

1. See Guilding and MacManus (1998).
2. Refer to Dudick (1987) for an illustration of this method.
3. See Gloy *et al* (1997), Keane and Wang (1995), and Jackson (1989a, 1989b, 1989c).
4. The data were highly confidential and only brief company descriptions may be offered in order to preclude the identification of the case organisations.
5. For more detail refer to Andon (1997).
6. Quotations have been edited for clarity.
7. *Pro forma* schedules illustrating these calculations are available from the authors on request.
8. Members who changed plans during a year were not considered for that year.
9. Annual contribution was calculated by subtracting claims, commissions and direct expenses from premium revenue.
10. Pro forma schedules illustrating these calculations are available from the authors on request.
11. Austinsure had been presented with anecdotal and international evidence that clearly showed that a customer who holds multiple policies is far more valuable than those with a single policy.
12. These segmentation variables showed that older members, those who had been retained by Austinsure for longer and who held the maximum NCB, were significantly more valuable than the rest.
13. Interestingly, activity based costing was not used to generate information for "conventional" accounting purposes. It was used in this customer-related context only.
14. Customer defections were tracked separately by ABC Bank. They were analysed for the Retail Bank overall. Customer defections were also tracked in terms partial defections (i.e., inactive accounts).
15. Customers seeking loans, in comparison, provide much more information to a bank.

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