Title: Customer profitability analysis in support of strategic decisions

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Purpose

The purpose of the paper is to explore the extent to which the management accounting technique of customer profitability analysis can be utilised to support strategic decision making within organisations.

Method

The analysis is based on participative observations supported by key informant interviews within four separate organisations. The use of multiple case studies enables a range of customer relationships to be explored.

Findings

A variety of measures are used in practice to ascertain the relative profitability of customers. There is evidence that customer profitability analysis supports strategic decisions. There is a strong link to marketing strategy and customer development and as a consequence customer profitability analysis can provide insight into resource allocation and long term planning.

Limitations

The four cases selected were based on existing contacts of the author and were selected because of the knowledge of their use of customer profitability analysis.

Practical implications

The findings highlight areas where customer profitability analysis can provide valuable insight. However, the development of customer profitability analysis as a regular reporting tool has implications for the design of management information systems to ensure that it can be undertaken cost effectively.

Originality

The use of multiple case studies covering a range of customer relationships indicates the variety of analysis that can be deployed to support strategic decision making.

Key words: Customer profitability analysis, strategic decision making, customer relationships

Classification: Case study

Introduction

There is a wealth of marketing literature that explains the need for companies to understand their customers (Verhoef, 2003; Ryals, 2005; Kotler *et al.*, 2010; Jobber and Ellis-Chadwick, 2012). This extends to the realisation that some customers are more profitable than others due to the differing demands made on a company's resources in providing the product or service (Guilding and McManus, 2002). The concept of customer profitability analysis has been defined as, 'the total sales revenue generated from a customer or customer group, less all costs that are incurred in servicing that customer or customer group' (Ward, 1992, p.118). The basic significance of understanding which customers contribute to a company's profitability and the importance of retaining and attracting the most profitable customers is widely recognised, (see Reinartz and Kumar, 2003; Kaplan and Narayanan, 2007). Also the concept of understanding customer attractiveness is well documented in the marketing literature (see La Rocca *et al.*, 2012; Huttinger *et al.*, 2012), but the accounting literature does not do justice to exploring the potential contribution to the strategic management of customers that accounting information can make. This paper seeks to contribute to the available research literature by presenting four vignettes of companies that are known to undertake customer profitability analysis and explore the extent to which it is used in strategic decision making within the company.

Customer profitability analysis (CPA)

In relation to a case study in the hospitality industry Noone and Griffin (1999) refer to customer profitability analysis as a 'technique which assesses the profit yield from market segments, primarily to provide management with information that will enhance long-term yield decisions' (p.111). This aids management decision making in areas such as marketing, capacity management and customer mix. The thought that customer profitability analysis supports strategic decision making is expressed by van Raaij *et al.* (2003), 'This insight in the extent to which specific customers consume the firm's resources generates new opportunities for the firm in three areas: cost management, revenue management and strategic marketing management,' (p.574). The benefits are not seen as purely numerical, i.e. knowing which customers are profitable and which are not, but focus on the non-financial and strategic use of possessing a greater understanding of the customer mix (Ward, 1992; van Raaij, 2005; Epstein *et al.*, 2008). It is recognised that there are different techniques that can be employed in analysing customers. Four categories are identified by Lind and Stromsten (2006): customer profitability analysis, customer segment profitability analysis, lifetime customer profitability analysis and valuation of customers as an asset. This categorisation appears to be fairly well established, accepting that Guilding and McManus (2002) included an overarching fifth category; that of customer accounting. This is the overarching notion that encompasses any practice directed towards establishing the attractiveness and profitability of customers.

The difference between the *customer profitability* and *customer segment profitability* analysis is related to the idea of customer profitability analysis being appropriate for individual or groups of customers respectively. Customer profitability analysis is often based on historical information, but to gauge a customer's true worth to the company it is necessary to consider not just past performance but future performance as well. This leads to assessing profitability over the lifetime of the customer and is the basis of *lifetime customer profitability*. This technique recognises that as the relationship grows the customer has potential to become more profitable in future years, thus yielding significant profits and benefits to the company over its lifetime (Epstein *et al.*, 2008). The concept of *customers as assets* is common within marketing literature, and customer relationship management and relationship marketing are seen as a key part of the strategy to developing a business (Morgan and Hunt, 1994). However, there is no clearly defined method of calculating the value of a customer. In a discussion of customer attractiveness La Rocca *et al.* (2012) make the point that in business relationships attraction is a matter of economic outcomes for the parties involved. At a basic level economic value is created when return on investment is greater than the cost of capital (Doyle, 2007). This notion is founded on the concept that different customers contribute different revenue streams and make differing demands on an organisation's resources to service the customer thus generating differing returns on investment, such that the retention of non-profitable customers will destroy value as opposed to adding value (Hallberg, 1995). Building on the lifetime profitability technique and the concept of economic value, the *value of the customer* is operationalised by taking the present value of the net cash flows generated by a customer over its lifetime (Boyce, 2000; Guilding and McManus, 2002).

One of the fundamental principles behind the concept of customer profitability analysis is that the degree of interaction, or interface as described by Ford *et al.* (1998), results in customers making different demands on the firm's resources. It is this difference in the customer interface that contributes to the difference in profitability between the customers. Lind and Stromsten (2006) identify four such levels of interaction or interfaces: transactional, facilitative, integrative and connective. They placed these in a matrix dependent on the degree of technical or organisational interface to the customers (figure 1).

Organisational interface to customers Technical interface to customers	High	Low
High	Integrative customer relationship	Connective customer relationships
Low	Facilitative customer relationships	Transactional customer relationships

Figure 1 – (Lind and Stromsten, 2006, p. 1260)

A technical interface occurs where customers make demands on the technical aspects of the relationship such as demanding product variations from the standard product. An organisational interface can be characterised by the way organisations interact and the business relationships that exist between suppliers and customers. An organisation therefore makes choices about the degree to which it adapts its processes, systems and products or services to meet the demands of its customers. As customers make differing demands, requiring deferring responses, organisations will benefit by favouring some customers over others. This is where customer profitability analysis has significant organisational benefits as it allows organisations to make strategic decisions as to resource allocation, structure and degree of flexibility required to meet customer demands. An organisation that manages these interfaces and creates the right customer mix will gain an advantage over its competitors.

Transactional relationships occur with customers who buy the standard product through standard outlets – thus there is no real interaction between the supplier and customer. Facilitative relationships occur where the customer makes few demands on the product but, as these customers place frequent orders, the organisation works closely with the customer and dedicates resources to ensure that its needs are met. These customers typically generate substantial short term profitability. Integrative relationships involve a high degree of customisation of product and the organisation will devote resources to this type of customer. Within integrative relationships there is a high degree of cooperation between the customer and supplier and their processes and systems often integrate to mutual benefit. They are not only important in the short term, but as the customer may be involved in product developments and also devotes resources, time and effort to making the relationship work, they represent long term profit potential for the organisation. There is support for this viewpoint in that Galt and Dale (1991) suggested that 'a buyer needs to make itself attractive for a supplier to do business with his or her firm' (p.18). It also has foundation within the relationship marketing literature in that it highlights the importance of building relationships and targeting those customers that are prepared to work for mutual benefit (Christopher *et al.*, 1991). Connective relationships place high demands on product customisation for which the organisation has to invest resources, time and effort to satisfy the customer, but the customer makes little effort on its part to work with the organisation. These are significantly more resource intensive to service from the supplier perspective and therefore create high costs, but generate low revenues.

This analysis indicates that developing customer relationships that create long term profitability presents a strategic choice for organisations. Helgesen (2005) links this with a market orientation and suggests that 'businesses have two main goals: (1) to satisfy customers' needs by offering products which meet their desires and demands, and (2) to satisfy the business unit's needs by carrying out exchanges that result in long-term profitability,' (p.225).

Having identified the various form of interfaces to customers Lind and Stromsten (2006) matched the types of accounting technique to the interfaces as shown in figure 2.

Organisational interface to customer / Technical interface to customers	High	Low
High	Lifetime profitability analysis	Customer valuation analysis
Low	Customer profitability analysis	Customer segment profitability analysis

Figure 2, (Lind and Stromsten, 2006, p.1260)

It is suggested that based on the type of interface the most appropriate accounting technique can be identified and applied. The idea of a standard product with little interaction suggests that creating a relationship or identifying a profile of individual customers is less important and therefore *customer segment profitability* is appropriate. Whereas with a high degree of organisational interface with resources being allocated to specific customers individual customer relationships are created and *customer profitability analysis* is appropriate. This would entail allocating costs of tailored resource utilisation to individual customers. Where a close relationship is forged whose main focus is developing a long term relationship with the customer for long term profitability, *lifetime customer profitability* is appropriate. It may be that in the early stages of the relationship that the investment in resources to develop the close working relationship outweighs the revenue generated in the short term, therefore the strategic rationale is made on the long term benefits, i.e. lifetime customer profitability. In cases where the customer makes high demands, but offers little in exchange these can be unprofitable and therefore other strategic issues may be taken into account, such as access to potential markets as a result of supplying the customer, as Ward (1992) suggests the strategic importance of the customer makes them worthwhile. In these instances the company could be said to be assessing the *value of the customer* as an asset.

It has been suggested that the benefits of undertaking customer profitability analysis can provide a competitive advantage to an organisation by enhancing the key strategic and operational decisions around investment in resources to satisfy customers as well as being better informed to attract, select and retain the profitable customers (Heitger and Heitger, 2008; van Raaij, 2005). The drive behind relationship marketing to identify the most profitable customers and match marketing investment to attract and retain those customers is that it will positively benefit the company (Malthouse and Blattberg , 2005), highlighting the need to make decisions about investment in resources based on attracting the right type of customers.

Customer profitability analysis requires the revenues and costs to be meaningfully allocated to customers. The revenue is usually easy to allocate and accounting systems, particularly in a business to business situation, are able to record revenue by customer. The costs are more problematic in that accounting systems are not always geared towards allocating costs to customers, but to cost centres (Bhimani, *et al.*, 1999). Again in business to business situations the direct costs of the products can be allocated to customers and therefore the contribution per customer can be ascertained. What is more difficult is the allocation of those indirect costs that are driven by customer activity, such as the cost of order processing. It is with this aspect that activity based costing can enhance the customer profitability analysis by incorporating the indirect customer driven costs in a meaningful way (Smith and Dikolli, 1995; Foster and Gupta, 1994; Noone and Griffin, 1999). However, there are difficulties here in that accounting systems are not always geared to record costs against activities and the analysis has to be undertaken outside of the main accounting system. Cooper (1991) reported that a standalone system of customer profitability analysis could be implemented reasonable quickly, whereas adapting the existing system is often costly and time consuming. However, Hartfeil (1996) recognises that customer profitability can vary not just between customers, but over time for individual customers, therefore the analysis needs to be undertaken on a regular basis. This implies that a system of data collection and the facility for analysis needs to be established within the normal management information systems of the organisation. As Noone and Griffin (1999) found in the study of a hotel chain, the undertaking of a customer profitability analysis exercise reinforced the inadequacy of the current information system. It is also significant that there is a strong communication implication and commitment from senior management required, particularly where the original assumptions about which customers are profitable may be proved wrong by the analysis. Therefore management need to be open to this possibility in order for them to accept the results of the analysis and be confident enough to take decisions based on it (Lee, *et al.*, 2010).

The difficulties of collecting historical data have been referred to, so the fact that customer profitability can change in the future makes estimating future activities, levels of business etc problematic. When it is also considered that customer profitability can be affected by factors that include: ‘product mix, share of purchases, strength of preference for one manufacturer over another, customer satisfaction, and relationship handling costs’ (La Rocca *et al.*, 2012, p.1243) calculating customer profitability can be difficult, which may detract from its ability to support strategic decision making within the organisation. However, if it achieves anything it provides management with a means of carefully examining its relationships with customers and how the profitability can be enhanced, as well as focusing attention on risk and strategic potential of investing time and resources in different relationships. It shifts the analysis from ‘retrospective to prospective’ (van Raaij, 2005) and assists the retention of existing profitable customers and the acquisition of new customers with similar potential.

The study

This paper sets out four vignettes that describe a situation where the author was involved, either via direct employment or consultancy contract, with a company that undertook some form of customer profitability analysis. The data was gathered as part of a wider on-going study into the contribution that management accounting can make to the strategic management process of an organisation. The primary method of collection was participant observation, placing a practical and applied aspect on the research, both in terms of issues around data collection and also in relation to involvement in decision making based on the results of the analysis (Bryman and Bell, 2007). However, the danger of bias that can be implied by attempting to justify decisions made is recognised and therefore the participant observation has been supplemented with key informant interviews to inform the analysis (Anderson with Arsenault, 1998).

To protect the identity of the organisations involved they have been referred to by the industry sector within which they operate.

Four vignettes

1. Civil engineering consultant

Engineer provides consulting engineering services to a range of clients in the public and private sector. The company operates a divisional structure. There are six main operating divisions and three service divisions based at the head office located in the South of England. The six operating divisions cover the design areas of: Power; Structural; Highway; Transportation; Water; and Environmental. The service divisions are: Geotechnical; Computing; and Quantity Surveying. The service divisions have external clients of their own, but the majority of their work is provided internally on projects being managed by the operating divisions. The company has seven regional offices in the UK and five overseas offices. The regional and overseas offices also provide a range of services and the larger of the offices (up to 70 staff) are structured and managed on a divisional basis in a similar way to the head office. The smaller offices (less than 10 staff) are managed as a single business unit. There is a high level of inter-office collaboration and a high volume of support provided by the head office divisions to all other offices. For example a significant element of the design work for overseas projects may be undertaken in the UK, with the project and minor changes being managed locally.

The financial controller explained that the senior management team decided to look at the customer mix of each division more closely during a strategic review which had brought home a fact that everyone knew, but was afraid to mention. A senior partner pointed out, ‘As a group we are quite well diversified geographically and in terms of the type of work undertaken. However, what hit home was that each division relied heavily on one or two major customers, so making sure that we kept them happy was becoming more important as competition increased and the economy got worse.’

The policy for accounting for costs is to allocate costs based on an hourly basis as this matches the recording of time for billing purposes. All staff complete a weekly timesheet, recording their time against project and activity codes. By the use of activity codes it is possible to record separate elements of the project, both for billing and control purposes. For example by recording the time associated with quality management activities it is possible to monitor the cost of quality management. A series of codes are used to allocate all non-chargeable time enabling this to be monitored and managed.

The costing system is also capable of recording two cost rates – one is used for calculating the contribution level (defined as fee earned less direct staff costs of hours spent, i.e. engineer time spent on project), the other is a total absorption cost rate inclusive of all overheads. All expenses are recorded against the project and associated activity code, either for onward billing to the client, or to record the cost.

The financial controller explained the method of accounting for time costs. '..... We initially used an overhead rate per hour calculated for each office, so Manchester would have a different rate to London. However, there is now such a culture of inter-office cooperation, and part of the competitive advantage is speed of response and flexibility of resources, that the company is now managed on a total resource approach. So when we obtain a new contract, that could have been negotiated locally or by the head office, because of the technology we use the work could physically be done just about anywhere in the organisation. We've now adopted a companywide overhead rate, which is calculated by taking the total overhead and dividing it by the forecast working hours for the coming year. The engineers accept this as being a reasonable practice and they don't have to worry about where the work is actually done. It's almost as if we have a virtual workforce - they just happen to sit in offices supplied by the company.'

In response to a query on the use of a global total absorption rate the financial controller explained, '.... we did an extensive ABC exercise a couple of years ago and for the time and effort involved it didn't yield any great difference to overall rates. The fact that we record activities via project and associated activity code on the computer system, means that we are constantly looking at the hours spent on all activities including the non-chargeable activities, so we use budgets to control costs, and time recording to control what we spend time on.' He went on to explain that a project number is allocated at the bid preparation stage, so if a bid is successful the cost of the bid preparation is charged to the project, if unsuccessful it is treated as non-chargeable time. In practice every activity is managed - effectively deploying a form of activity based management.

The customer profitability is monitored via the costing system in that it records the total time, by activity on each project, values the time at full absorption rate, and sets this against the fee earned on a quarterly basis. Small projects are reviewed on a monthly basis. The costing system allows reports to be produced for a project, a group of projects managed by a particular engineer, or all the projects for a particular customer. It is this report that is used to monitor customer profitability.

Each customer is allocated a lead consultant who is responsible for managing the needs of the customer. Each quarter the projects for each customer are reviewed by the lead consultant with a senior partner who has a particular responsibility for the area of work, e.g. power design, and the project engineers responsible for the individual projects. This means that customers are reviewed in relation to their importance to the area of work, e.g. the highway design is dominated by work for the UK Highways Agency, so the profitability and strategic importance of that customer to the specific area of work can be reviewed. The flexibility of the reporting system enables the senior partners to review the profitability of all the highways projects together, thus indicating the relative profitability of highway design, as well as customers within that division. Another example of looking at the strategic importance of customers occurred within the power division where the company is lead consultant to a major energy provider that operates internationally. This fact enables them to win more lucrative contracts from other customers. Thus the strategic importance and the referent nature of the customer can be assessed (van Raaij, 2005). As the divisional manager said, ‘We know we make a loss on the contracts with [company X] but we can assess the profit we make on the other work we get as a result of our enhanced reputation in the market’.

2. Professional education

Educator provides training courses preparing students for the professional examinations leading to five different accounting qualifications in the UK. At the time the data was collected it was a subsidiary of a private sector education provider listed on the London Stock Exchange. The customers include: professional accounting firms who engage companies such as Educator to prepare their trainee accountants for the professional examinations necessary to become a qualified accountant; large corporate employers who support their accounting staff in becoming professionally qualified; and individual customers who may be individually sponsored by their employer or who pay for their own training, possibly as part of a career change, or desire to become professionally qualified to progress in their career. Educator works hard to secure preferred trainer status with large accounting firms and corporate customers. The split of revenue at the time the research data was gathered was: professional accounting firms, 35%, corporate customers and sponsored students, 55%, individual self funding customers, 10%.

Educator, with its Head Office in London, operates from over 20 regional offices in the UK and several European locations. Its costs are primarily made up of establishment and staffing costs. The company treats the different professional body’s qualifications as revenue streams and it establishes a target / budget level of income for each revenue stream. For example it identifies a revenue stream for courses leading to the Chartered Institute of Management Accountants qualification, another for the Chartered Institute of Accountants in England and Wales, and so on for the 5 professional bodies for which it offers courses. All courses are part time as students are normally in employment. Each office offers the full range of courses for the professional bodies which are standard across the company.

The company monitors a contribution for each type of course (literally revenue less direct costs of course materials), but does not attempt to allocate staff costs or overheads to courses. Staff costs and establishment costs are controlled via a resource utilisation approach, i.e. room utilisation and staff utilisation are monitored very closely. The Managing Director commented, ‘We basically start the year with a large fixed cost and we try and make sure we get enough students to cover the costs. It would be fair to say I worry more about student numbers than I do cost.'

The customer contribution is monitored, firstly by major grouping of customers, i.e. professional accounting firms, corporate employers, sponsored customers and individual self funding customers. For larger customers such as major accounting firms and corporate customers, the contribution is monitored individually. Major accounting firms with more than 50 students around the UK might have a dedicated administrator and liaison tutor, so these costs would be directly allocated to that customer.

The Managing Director explained, 'We look at the contribution or margin that we make from each area of the business. The public courses [courses that are not client specific] are the most profitable in terms of margin. These subsidise the professional accounting firms. In fact we have often discussed whether we should undertake the chartered [Chartered Institute of Accountants] training for the big four [accounting firms] as they exercise significant bargaining power and every year want more for less. But then we still continue to do it…….. To be seen as a credible trainer we need to be doing the chartered training. We know that the margins are much lower on the big four and large corporates such as GSK, Ford or Gillette, as they can negotiate the fee downwards, so we look at the balance of where the students are coming from. We also look at margins on each revenue stream, [based on professional bodies]. We can then target increases in revenue streams for a particular qualification. So we might target an increase in CIMA courses and ramp up the marketing to attract more CIMA business…….. Knowing what the margins are on the big clients gives us an edge in negotiating as we have in the past had instances where we've decided that we'd stick it out and risk losing a client if we felt the fee was too low. We also use the information to negotiate pass bonuses with the big firms. We can agree to a lower fee knowing we can claw some back if we get a given percentage of their students through at the first attempt. It was this sort of analysis that enabled us to offer the 'pass assurance' scheme on the public courses by pretty much knowing how many will get through at first sit, and hence what it would cost us to offer a free revision course for the next attempt'.

The MD also explained that the large accounting firms often displayed 'strange' behaviour in that if Educator won a large contract with one of them, the other major accounting firms were reluctant to use them, but it attracted many smaller accounting firms, whereas in the corporate market, gaining a big customer would attract other big corporate customers. He also highlighted that when negotiating fees they would take into account the future potential of the customer to supply regular volumes of students. What became clear was that management were making decisions that had a potential impact on the rest of the business when bidding for or negotiating training contracts, or simply setting the price in a highly competitive market, so understanding the potential profit impact of a customer or group of customers was important.

3. Direct collectibles

Collectables is a US owned company with a UK division based in the south of England. It sells ‘collectable items’ via the Sunday newspaper and general circulation magazine market. The products range from figurines, commemorative items such as mugs, decorative wall plates, decorative thimbles etc. Most of the products are manufactured overseas. Customers can buy a single item, but the marketing is geared towards encouraging customers to buy a series of items collected over a period of time, e.g. monthly or bimonthly, to create a ‘unique’ set. It is a competitive market and often relies on product ideas associated with a special event, e.g. Queens Jubilee, Olympics, birthday of historical figure; or ideas that create a series, e.g. months of the year, great composers, dog breeds etc.

The company maintains a computer system that is capable of reporting information by customer, of which there are thousands, some of whom have only purchased one item and would be classified as ‘inactive’ after six months. The basic contribution can be calculated as the system also holds the direct product cost of each item purchased by the customer. The accountant of the UK division undertook an activity based costing (ABC) exercise and identified the cost of dealing with a customer return, the cost of handling a paper order posted to the order department, the cost of internet orders, the cost of processing payments made by cheque or credit card, and the cost of despatching items from the warehouse. A standard charge is made to the customer for postage and packing.

The UK divisional computer system has been developed over a period of time to enable customer activity to be monitored on a regular basis. The main purpose of this is to help target marketing expenditures, particularly in terms of targeted forthcoming product ranges to specific customers. For example a customer that has purchased a single thimble or subscribed to a single collection, such as ‘butterfly thimbles’, (thimbles with pictures of butterflies on them), will be encouraged to join the thimble collectors club. This is mainly based on the belief that encouraging people to buy more will increase profits, however merging the customer segment analysis with the ABC analysis in a spread sheet revealed that these customers are in fact very profitable as thimbles are easy to pack and returns are low, there are no ordering costs as customers automatically receive a thimble a month of a different design taken from one of the individual collections until that collection is complete, when shipment moves to the next collection. Production and inventory can be managed more effectively as demand can be easily predicted. However, the customers that purchase a one off larger item, such as a porcelain figurine, are less profitable, as more returns occur from product disappointment or breakage creating additional costs, and demand is more difficult to estimate and manage. The accountant works very closely with the marketing department who gathering data in order to identify the typical profiles of customers, e.g. who is a typical thimble collectors club member? who is likely to buy a commemorate mug, or ornamental chess set? Working together the customer profile is matched with the customer profitability to create a type A, B or C customer so that the marketing and product development expenditure can be targeted to maximise the sales and profit of the company.

The Head of Marketing commented, ‘We work very closely with the accounting team to monitor not just the profit per product range, but also the profit per customer type. It’s an emotive purchase decision, so price is important, but we want to identify and nurture the type of customer that will continue to buy the whole collection. So, understanding the customer psyche is important and ultimately we want to sell profitable products to profitable customers, so understanding the link between customers and profit helps.’

4. Alarm Systems

Alarm is a company based in London that acts as agent for a major supplier of building alarm systems. They supply both new build and replacement markets and employ a small number of office and sales staff. The Marketing Director highlights the fact that their key competitive advantage is the value added to the customer. For example they will work closely with new builds on the design and will organise installation, training and maintenance. Key customers are property developers, facilities managers and local authorities, but they also sell via referral markets such as architects, consulting engineers (such as Engineer described in vignette number 1), and insurance companies. The Marketing Director was keen to point out that understanding the markets and customers is a key step in choosing which customers the company wants to obtain. This enables Alarm to target certain types of customers that had been identified as potentially profitable. ‘It’s not just a case of selling a product. It’s just as important to choose your customers carefully.’

As each customer contract is discretely identifiable as to the products they have purchased and the services they have received it is relatively easy to obtain a contribution on each customer. A customer rating is ascertained for each customer based on a range of factors which include:

- Loyalty - reference to past purchases and number of other suppliers the customer does business with;
- Core market - the industry sector it is in, i.e. is it in a core market serviced by Alarm;
- Finance - reference to payment record and financial strength;
- Value Added factor - is there potential for Alarm to add value to the customer?
- Growth potential - the potential of the customer to grow;
- Degree of support required - how demanding they are as a customer? Are they a high maintenance customer?

These factors combine to create an overall rating of between 1 and 5 for the customer. The position is then plotted on a grid with the axes denoting profitability and rating as illustrated in figure 3.

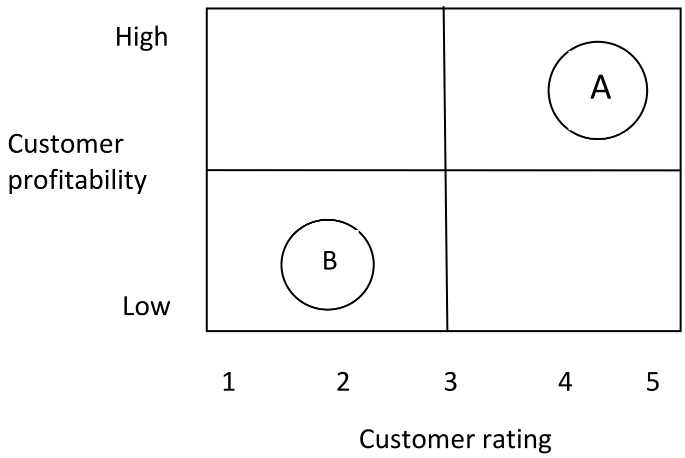

Figure 3 – Customer positioning grid

The Marketing Director recognises that the rating is subjective but that the grid provides a basis for a monthly meeting with the sales staff to discuss each customer to see how they can be developed into highly desirable profitable customers. For example, what could they do to move customer B into the high profit and high rating position along with customer A, or is customer B unlikely to become highly profitable and not one they wish to nurture. This analysis also enables them to understand why customer A is where it is and to seek out other customers of a similar kind or potential, so in this case customer profitability analysis is used as an aid to understanding customers and identifying which customers the company should develop a strong relationship with. It is also used as a motivational tool for sales staff to develop customers and ultimately the profitability of those customers.

Discussion

Each of the four vignettes indicates that organisations are concerned about their customer base, but the accounting support that the analysis receives is different. As ABC is said to be beneficial where there is a high incidence of indirect costs (Drury, 2008), it is notable that neither the Engineer nor the Educator, who both experience a high incidence of indirect costs, used ABC to enhance the CPA.

The Educator used a mix of individual customer profitability, or more accurately contribution, and customer segment profitability. The professional accounting firms and corporate customers negotiated individually for training contracts, whilst the individual customers on 'public courses' paid a set price. The company was also able to monitor product and customer contributions as certain customers, e.g. the professional accounting firms, purchased almost exclusively from one product range, e.g. chartered accounting courses. This aspect of the business was also heavily reliant on the strength of the recruitment policies of the major accounting firms, i.e. if they reduced graduate recruitment programmes, the number of trainees requiring training reduced, thus reducing the market of the Educator. As the manager in charge of chartered training commented, ‘It’s one of the problems of being a focused provider. To an extent my area of the business depends on the accounting firms recruiting trainees - which is something they never tire of pointing out to me when negotiating fees.’

Collectibles did enhance the customer segment profitability analysis with ABC and the choice of segments was heavily tilted towards product types. The main focus of the analysis was in terms of marketing, and product development. The analysis was also used to identify those customers that they could escalate into being a highly profitable, easy to serve, customer, i.e. it was used to target marketing promotions and product ranges that would appeal to this type of customer.

Alarm is the only example that could be said to be using the concept of lifecycle profitability except that a number for lifetime profits was not calculated. Instead they used the historical cumulative contribution figure per customer, but took into account a range of non-financial issues, that had implications for long-term customer development. However, by not taking into account the lifetime profit figure, there could be a temptation to increase the level of support to a customer, with the intention that it increases the level of business and hence profit generated, when in fact the bargaining power of the customer increases as Alarm becomes more reliant on the customer for business. In discussion with the Marketing Director it was clear that they were aware that this could happen. He stated that they took into account the level of business committed with each customer, e.g. the overall portfolio of customers, and that they were wary of becoming too reliant on a small group of customers. He emphasised that the analysis aided the identification of customer characteristics that denoted a good customer and that they focused their attention on acquiring and retaining the good customers. He also added that the competitive advantage was based on adding value to the customers and they sought the type of customers to which they could add value and build a long-term relationship.

In relation to the information required for customer profitability to take place the Engineer produced the information as part of its normal management information system. Therefore there was little extra work involved. The Educator also used information from the normal accounting information, but grouped certain customer types together. This could be done via custom reports from the existing management information systems. Collectibles had undertaken ABC analysis outside of the normal system and downloaded information by customer type/segment from the accounting system to a spreadsheet. The indirect costs were then added to the analysis within the spreadsheet requiring additional work. Alarm undertook a fairly subjective review of each customer outside of the normal accounting information system.

Limitations

Although it is useful to utilise multiple case studies as an aid to increasing the validity of the findings (Yin, 2003) the cases chosen were not selected on a random basis, but from an existing relationship with the author. However the cases are representative of a variety of business relationships and sizes of business. The findings are in accordance with other studies from the hospitality and banking industry, (Noone and Griffin, 1999; Lee *et al*, 2010) where a mix of business relationships exist within one organisation, such as corporate and retail. The findings suggest that customer profitability analysis supports strategic decision making.

Summary of findings

	Engineer	Educator	Collectibles	Alarm
Size of business: Turnover p.a.	£80m	£139m	£50m	£5m
Business relationship to customer Business to Business (b2b), Business to Consumer (b2c)	b2b	b2b & b2c	b2c	b2b
Analysis comes from:				
Accounting system	✓	✓		
Outside accounting system			✓	✓
ABC used to enhance CPA analysis			✓	
Non-financial factors considered	✓	✓		✓
Use of analysis:				
Inform marketing decisions		✓	✓	
Inform product development			✓	
Pricing decisions	✓	✓		
Informs negotiations	✓	✓		✓
Inform customer selection		✓		✓
Inform customer relationships development	✓	✓	✓	✓
Identification of strategic customers	✓	✓		✓
As a motivational tool				✓

Key findings as to the use of CPA can be summarised as follows:

- In practice it is possible to undertake a mix of analysis, i.e. customer profitability for large customers, customer segment profitability for smaller customers where it is more appropriate to treat them as a customer type. This is based on the fact that the interfaces between different customer/customer groups may differ (see figure 4).

Organisational interface to customers / Technical interface to customers	High	Low
High	*Customer lifetime* **Alarm**	*Customer value*
Low	*Customer profitability* **Engineer** **Educator**	*Customer segment profitability* **Engineer** **Educator** **Collectibles**

Figure 4 – categories of customer profitability analysis undertaken by case companies

- Customer profitability analysis can be used as a motivational tool.
- There is a strong link between customer profitability and marketing strategy and customer relationship management (van Raaij et al., 2003; Malthouse and Blattberg, 2005).
- Customer profitability analysis can be used strategically to help develop customers (Christopher, et al., 1991; Heitger and Heitger, 2008; van Raaij, 2005).
- Customer profitability analysis is used to inform negotiations and pricing decisions (Ward, 1992).
- It is important to recognise that profitability of customers can change over time, thus; it is important to keep the analysis up-to-date or to establish a system to enable the analysis to be undertaken and considered as part of the normal business reports from the management information system (Hartfeil, 1996; Cooper, 1991).
- There is a danger of overcomplicating the calculation so that it becomes difficult to incorporate into a regularly review (Noone and Griffin, 1999).
- In practice compromises may be made on the degree of sophistication used to calculate the relative profitability of customers.
- Recognise the limitations of the actual calculation within the analysis in that it might be indicative of relative profitability rather than the actual profit made on each customer.
- Whist the actual profit figure is useful it cannot be used in isolation. Recognition of the non-financial and strategic factors must be taken into account in decision making, customer profitability analysis can inform the decision, but should not be used as the sole basis for making the decision (Ward, 1992; Epstein et al., 2008)

Conclusion

The technique of customer profitability analysis aids strategic decision making and potentially provides additional insight into the development of marketing strategy and customer relations for long term profitability but should not be used in isolation as a purely numerical tool. Due to the dynamism of customer relationships over time the analysis needs to be undertaken on a regular basis which has implications for the design of management information systems in order to ensure that the use of the technique is cost effective.

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