Taking a customer focus: Customer profitability analysis, customer relationship management, and customer portfolio management

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1. Introduction

The marketing concept and customer centric approach has been recognised in the marketing literature for many years (Bell and Emory 1971; Jobber and Ellis-Chadwick 2012), but it was not until around the 1990s that the importance of customers, or more significantly customer profitability analysis (CPA), began to appear in the accounting literature (Bellis-Jones 1989; Cooper and Kaplan 1991; Ward 1992; Foster *et al.* 1996; Hoque 2003). Metrics associated with the customer perspective were promoted in the balanced scorecard (Kaplan and Norton 1992, 1996), and the use of activity-based costing was linked with CPA (Kaplan and Cooper 1998), but despite the use of the words *profitability* and *costing*, McManus and Guilding found in their 2008 review of the accounting and marketing literature that coverage in the accounting journals was little more than fledgling.

This is still true today in that coverage in mainstream accounting journals is relatively sparse compared to the marketing literature. Thralls (2008) provocatively suggests that CPA is not seen as mission critical and consequently is not viewed as a high-profile technique. It is, however, frequently described as a strategic management accounting (SMA) technique (for example in Guilding *et al.* 2000; Cadez *et al.* 2005; Cinquini and Tenucci 2007). Perhaps the difficulty that supporters of SMA have experienced in establishing the term within the accounting lexicon (see for example Langfield-Smith 2008; Nixon *et al. 2011;* Nixon and Burns 2012), may have detracted from the discussion of specific techniques such as CPA. The fact, however, that customers yield different levels of profit, and that some customers are unprofitable, is widely accepted. Indeed, some studies have identified that 20% of customers can generate as much as 225% of total profits (Cooper and Kaplan 1991) or that 60% of customers can generate two to three times the total profit, with the remaining customers consuming considerably more resources than revenue they generate (Cokins *et al.* 1993). This is often represented in the literature as the 'whale curve' (Kaplan and Narayanan 2001), or as an 'inverted Lorentz curve' (Mulhern 1999) or 'Stobachoff' curve (Storbacka 1998). A curve created by progressively adding the profits generated by each customer from the most profitable to the least profitable (Figure 1).

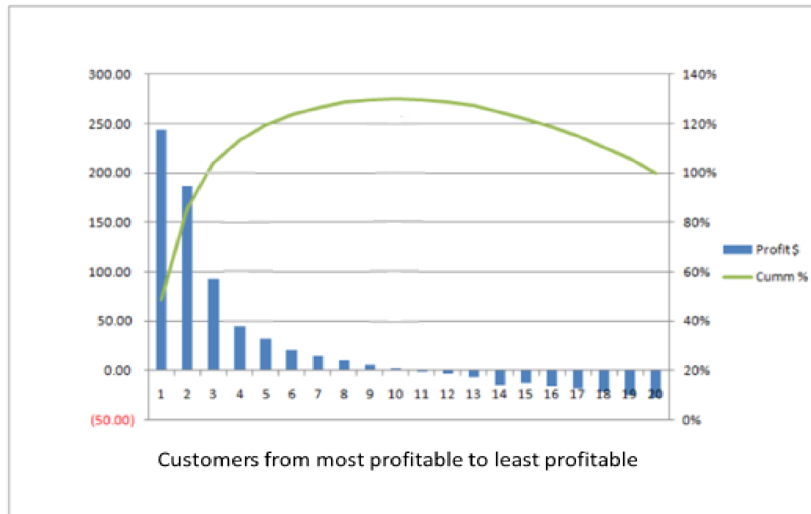

Figure 1 – Whale curve showing cumulative profits from most profitable customers to least profitable customers

Understanding the relative profitability of customers allows management to act to improve the overall profitability of the company (van Raaij 2005). It is not, however, just a case of dropping the unprofitable customers. In some regulated industries this may not be an option. Therefore, managers need to find ways of improving profitability, for example, by developing new products specifically for low spend segments or changing purchasing behaviour (McManus 2007). Cooper and Kaplan (1987) highlighted that new and growing customers may be unprofitable initially, but then become profitable as the relationship develops. It is also suggested by Epstien *et al.* (2008) that unprofitable customers may have hidden value such as influence or knowledge, a phenomenon that Horngren *et al.* (2000) refer to as unexpected revenue generation.

By utilising CPA van Raaij *et al.* (2003) point out that managers can identify opportunities in strategic marketing management, revenue generation and cost management activities. According to Kumar *et al.* (2004) CPA can aid managers to develop relationship-marketing strategies targeted at the most profitable customers, and as part of a customer relationship management system attempt to influence customer behaviour, customer acquisition, retention, satisfaction and hence overall profitability (Swift 2001; Ngair 2005; Boulding *et al.* 2005). The objective of the strategies adopted would be to lift the whole whale curve, but also to flatten the curve after it begins to dip.

Previous studies of CPA have been adequately explored in the existing literature with the reviews by McManus and Guilding (2008), Bates and Whittington (2009), and Roslender and Hart (2010) providing good coverage of the literature, so the intention in section two is not to provide a comprehensive review of the literature, although a degree of review is inevitable, but to set the

context and the theoretical background for the example case studies of CPA provided on this site. The case studies provided highlight the strategic benefits that can be gained by accountants and marketers working together to understand relative customer profitability. They demonstrate that CPA cannot be used effectively in isolation but adds the most value when viewed as part of customer relationship management and customer portfolio management.

2. Customer Profitability Analysis

2.1 CPA – the what and why

In its simplest form CPA is the difference between the revenue generated by a customer, or customer group, minus the costs to serve (Ward 1992). An example of a customer profitability report is shown in table 1 (Pitcher, 2018).

		$	
Sales revenue from actual product mix		267,000	100%
Less sales discounts		(1,000)	
Net invoice amount		266,000	
Less sales returns and allowances		(2,000)	
Net sales revenue		264,000	
Less direct product costs		(132,000)	
Product contribution		132,000	49.4%
Less customer costs:			
Order processing and cost of invoicing	(1,500)		
Sales visits	(5,000)		
Cost of dealing with returns	(500)		
Distribution costs	(15,000)		
Cost of customer-specific promotions	(6,000)		
Costs of holding customer-specific inventory	(2,000)		
Cost of financing of outstanding receivables	(5,000)		
Costs to serve	(35,000)	(35,000)	
Customer contribution		97,000	36.3%

Table 1 Customer profitability analysis report

A more detailed example of costs to serve is given by Boyce (2000). It is also suggested by Murphy (2005) that they can usefully be grouped and classified as product costs, selling costs, relationship costs and business sustaining costs. The use of ABC (Kaplan and Cooper 1998), and later time-driven ABC (Anderson and Kaplan 2004), is promoted as being an appropriate technique to enhance CPA due to the ability to allocate the costs to serve to customers using an appropriate basis. Utilising ABC does not, however, provide the answer, nor does it reduce costs. Rather, it provides information which aids understanding of the relative customer profitability by raising questions as to why some are more profitable than others (Shea *et al.* 2012) and facilitates better informed decision making to improve the profitability of customers (Searcy 2004). There are many examples from different industry sectors of CPA being calculated using ABC. For example: the hospitality industry (Noone and Griffin 1999; Guilding *et al.* 2001; Dalci *et al.*

2010; Hajiha and Alishah 2011); banking (Storbacka 1997; Zaman 2008); restaurants (Raab *et al.* 2009); paper industry (Shea *et al.* 2012); order handling industry (Helgesen 2007); and manufacturing (Smith and Dikoli 1995; Rahman and Ghafeer 2014). There is a danger, however, that the practicalities of ABC linked to CPA are glossed over. The fact that much of the data required to undertake a CPA analysis will not automatically roll off the accounting system, and to undertake the analysis regularly will require changes to the procedures, responsibilities and information systems (van Raaij *et al.* 2003) is not always highlighted. Indeed, Cooper (1991) suggests that the initial analysis is often undertaken outside of the routine information systems as a stand-alone exercise. The ideal approach would be incorporate the analysis into the routine systems, but this can be more time-consuming and problematic in the short term, which deters management from investing the effort to establish the necessary systems. To utilise ABC and CPA strategically involves estimating and forecasting costs and activity levels, unless undertaken retrospectively, which means it is not necessarily a precise tool, due to the element of estimation involved. Also, the complexity of customer behaviour in dynamic markets can add to the difficulties of incorporating results into marketing planning (Wang and Hong 2006). For these reasons, Ward and Ryals (2001) argue that the implementation of CPA requires an iterative approach to fully understand the true implications for the customer base, and this inevitably increases the demands on resources in terms of time and effort, and commitment on the part of management (Reka and Vasile 2014). An added complication was identified by van Raaij *et al.* (2003) in that the results of a CPA analysis may well be met with disbelief if the analysis produces information that is different from management's expectations. It is therefore important that management are actively involved and supportive of the exercise when undertaken for the first time (Noone and Griffin 1999). There is an educational role to be played by the marketing and accounting staff in ensuring that managers understand how the analysis has been derived and its implications for decision making.

The key benefits from undertaking CPA reported include facilitating a better allocation of resources (Zhang *et al.* 2010; Holm *et al.* 2012) so that marketing effort is directed towards the more profitable customer groups (Mulhern 1999), which can be linked to market segmentation (Storbacka 1997; Mulhern 1999; van Raaij 2005), for example, demographic analysis of customers or sales via marketing channel. It helps to identify opportunities for cost management, revenue management and pricing policies, and strategic marketing management (Guracaronu and Ranchhod 2002; van Raaij 2005; Cugini *et al.* 2007; Al-Mawali *et al.* 2012). It enables the firm to learn more about the behaviour of individual and groups of customers (Chang *et al.* 2012). Understanding the customers better and the cost implications can aid negotiations, indeed Chang *et al.* (2013) argue that sharing of information with customers can result in benefits for both parties in improved supply chain costs and better joint outcomes of the negotiations. However, Kumar and Rajan (2009) point out that preferred and loyal customers often know their worth and can be more demanding, but the benefits of being an

attractive customer (La Rocca *et al.* 2012) may lead to an enhanced understanding of the customer-supplier relationship, and as a result lead to more profitable relationships in the long run (Dwyer *et al.* 1987; Ellegard and Ritter 2006). Improved knowledge and understanding of the customer base can create a source of competitive advantage (Dikolli *et al.* 2007; Heitger and Heitger 2008) and, as Christopher *et al.* (1991) suggest, be utilised to help target customers with whom the firm will wish to build a long-term relationship.

The danger of attempting to quantify what is essentially a relationship built on loyalty and mutual benefit has been highlighted by Roslender and Hart (2010) who suggest that customer relationships and their involvement with product and service offerings could be determined via informal methods that more directly involve the customer, such as sales staff and feedback via social media. The inherent danger of CPA is that the relationship is being constructed from an internal perspective without the input of the customers. It is wholly based on putting a numerical value to the relationship. To fully understand customer behaviour a range of information is required, both quantitative and qualitative. Vaivio (1999) describes a case in which a 'quantified customer' is represented by a set of twelve metrics. This was utilised by management for developing and subsequently evaluating improvements to operational aspects of servicing customers. Vaivio goes on to describe the emergence of a 'sales customer' that was based on the experiences and knowledge of the sales function. It was eventually recognised that the sales staff had an intimate knowledge of customer specifics and problems that were better able to inform operational decisions concerning the servicing of customers. Bruns and McKinnon (1993), and Zaman (2008), highlight that managers have access to a range of information based on past decisions and interactions, and the CPA should ideally be part of the information that feeds into a wider customer relationship management (CRM) system. Ellegaard and Ritter (2006) suggest it is not just about the profitability, but the nature of the relationship, or as Gronroos, (1990, p.138) states, CRM is about developing a long-term relationship for 'mutual exchange and fulfilment of promises'.

Undertaking CPA can promote a customer focus within the business and it is suggested that by aligning customer strategy and business processes, customer loyalty and profitability will improve (Zeithaml 2000; Rigby *et al.* 2002). Kumar and Rajan (2009), however, note that managing customer loyalty does not always amount to increased profitability, as loyal customers can be more demanding. It is suggested that customer loyalty results in increased profits due to repeat purchases, lower acquisition costs, knowledge and experience, and positive messages, (Zeithaml 2000; McManus and Guilding 2008). Loyalty programmes, however, are more often linked to the past and are based on spending and frequency rather than profitability (Reinartz and Kumar 2003), and perhaps, as Fornell (1992) suggests, only loyalty of profitable customers increases profitability. Customer satisfaction has been positively linked to loyalty and has been shown to be a leading indicator of financial performance (Nelson *et al.* 1992;

Anderson *et al.* 1994; Ittner and Larcker 1998; Bernhardt *et al.* 2000; Yeung and Ennew 2000; Smith and Wright 2004). In contrast Tornow and Wiley (1991), and Wiley (1991), showed no specific or direct link between customer satisfaction and financial performance, but much of evidence suggests it helps. The key to utilising CPA is to develop and implement relationship-marketing strategies targeted at the most profitable customers (Kumar *et al.* 2004; Payne and Frow 2005). This is the essence of CRM: influencing customer behaviour, customer acquisition, retention, satisfaction and profitability (Swift 2001; Ngair 2005) or acquiring, retaining and partnering with selective customers (Helgesen 2007). This can make the business more profitability by formulating a value proposition and developing mutually beneficial relationships with the most profitable customers, (Gronroos 1990; Andon *et al.* 2001; Malthouse and Blattberg 2005). Johnson *et* al (2012) found, however, that in business-to-business relationships firms were better at developing strategies to retain customers with profit potential than they were at acquiring new customers based on their potential to yield future profits. Bearing in mind that some customers may have strategic value, managers need to recognise the value of managing the customer base, that is, managing a portfolio of customers (Paltschik and Storbacka 1992; Ford *et al.* 1998; Wang and Hong 2006). There may be occasions, as previously discussed, when it is beneficial to service non-profitable customers, but it is the maximisation of the total profit that is important.

2.2 Calculating CPA

Within the overall umbrella of customer accounting Guilding and McManus (2002) outline four additional dimensions of CPA. Customer profitability analysis, that is, for individual customers; customer segment profitability analysis, for example, where analysing individual customers may not be practical but revenues and costs to service identifiable segments is possible; lifetime customer profitability analysis, which is the calculation of the profitability of a customer over its lifetime with the company; and valuation of customers, which is the NPV of the future cash flows related to the customer.

Many companies look at the relative profitability of customers but often only use gross profit (Shea *et al.* 2012). This can be for practical reasons, for example, lack of data or resources to undertake an ABC analysis. Whilst benefits of ABC are well known (Kaplan and Cooper 1998) it is still the case that much of the information required for ABC, and indeed for CPA, is not collected as a matter of routine by the information systems utilised (Reka and Vasile 2014). However, merely utilising gross profit can provide misleading results, as the key aspect of costs to serve is missing, but the use of ABC is only justified if the cost/benefit of undertaking the exercise is favourable (Smith and Dikolli 1995) and the dilemma is that this might not be known until after the exercise is attempted.

The marketing literature refers to customer lifetime value (CLV) as the popular measure among marketers (Berger and Nasr 1998; Wang and Hong 2006;

Estrella-Ramon *et al.* 2013). It is said to be the upper bounds of expenses to acquire a new customer (Bonacchi and Perego 2012; Shea *et al.* 2012).

A common formula applied to calculate the CLV is:

$$CLV = \sum_{t=1}^{t=n} \frac{(M_t - c_t) \text{ x } (\text{retention rate}_t)^{t-1}}{(1+i)^t} - \text{Initial acquisition cost}$$

M_t = the margin (revenue less marginal product cost) from customer in year t
C_t = any additional costs to serve (and retain) the customer in year t
i = cost of capital (often the weighted average cost of capital)

The calculation assumes several factors can be ascertained or estimated such as the probability of retaining customers over time and the cost of retaining them, by expending customer-sustaining costs, and the profit margin earned by each customer including the costs to serve. The discounted cash flows earned from the lifetime of the customer are compared to the acquisition costs. This is an area where accountants and marketing professionals working together can provide valuable insight into understanding the optimum customer portfolio for the organisation to target. By analysing the costs and activities over time experience can be built up to make the model more accurate. This is particularly useful for banks where gaining a customer as a student and retaining them through employment to retirement provides the opportunity to sell many products and services. Based on this information it is possible to determine the level of marketing investment that could be afforded on the acquisition of new customers to ensure that an adequate return on investment was earned.

There is some debate as to whether acquisition costs should be included within CLV or not. Jain and Singh (2002) include acquisition costs, but Berger and Nasr (1998) initially leave the acquisition costs out of the calculation, only later to include them and refer to the result as customer equity (Berger and Nasr-Bechwati 2001). The term customer equity, is described by Bonacchi and Perego (2012) as the sum of CLV's across the firm's entire customer base. They further distinguish between current customer equity, which is based on the current customers, and total customer equity, which includes future customers. The term lifetime value echoes the concept of economic value, which occurs when returns are greater than the cost of capital (Doyle 2007). Therefore, the lifetime value is the present value of the future cash flows (Mulhern 1999; Pfeifer *et al.* 2005) discounted at the company's cost of capital over the normal planning horizon (Andon *et al*. 2001). Marketers prefer CLV as it is future oriented (Reinartz and Kumar 2000) whereas simple customer profitability is retrospective (Pfeifer *et al.* 2005) and, although historical data is useful, the potential relationships between actions and effect can only affect the future (Jacobs *et al.* 2001). Therefore, although we can be informed by the past, marketing strategies need to be formulated with the future in mind. It is, however, recognised that anticipating future cash flows/profitability is inherently difficult (La Rocca *et al.* 2012). To help

with this Pfeifer and Carraway (2002) suggest using a probability weighted average of the set of potential cash flows, and Damodaran (2002) suggests the analysis can be refined by adjusting the discount rate to reflect the degree of riskiness of the cash flows associated with the customer. The issues associated with CLV are akin to those of using NPV within investment appraisals.

It is worth noting that other measures have been suggested such as return on assets, being the return on customer-oriented assets (Rust *et al.* 1995) or, in instances where asset utilisation by various customers/customer groups can be ascertained, a ROI can be calculated (Devine *et al.* 2005).

A framework was developed by Lind and Strömsten (2006) to help explain why companies use different forms or dimensions of CPA (Figure 2). They recognise that businesses may have different resource interfaces with different customers. They discuss the interfaces of transactional, facilitative and integrative, identified by Ford *et al* (1998), to which they add connective. By linking this with the technical and organisational types of resources identified by Håkansson and Waluszewski (2002) they demonstrate how different forms of customer accounting are appropriate for different customer-relationships.

Organisational interface to customers Technical interface to customers	High	Low
High	Integrative (Collaborative) customer relationship Lifetime profitability analysis	Connective (Strategic) customer relationship Customer valuation analysis
Low	Facilitative customer relationship Customer profitability analysis	Transactional customer relationship Customer segment profitability analysis

Figure 2 – Forms of customer profitability analysis and customer relationships (Adapted from Lind and Strömsten 2006, p. 1260)

Put simply, customers who buy standard products via standard marketing channels will have a classic arm's-length transactional customer relationship, but a major customer who regularly buys a large quantity of standard products may stimulate the company to invest in organisational resources to facilitate the exchange and will have a facilitative relationship. In cases where the customer and company work closely together, for example to develop products denoting a

high product interface, and the company dedicates specific organisational resources to satisfy these customers, they will have an integrative (or collaborative) relationship. Where, however, the customer is demanding as to the product specification but has little interest in a close working relationship, the relationship will be connective (strategic). The resources utilised to satisfy these strategic customers potentially are high, but the financial rewards are low, due in part to the high costs to serve. There needs to be other benefits derived from the relationship such as kudos, referral or knowledge acquisition, hence we attach the term strategic to this type of customer, as the benefits are more intangible but have strategic importance to the company.

2.3 Customer portfolio management

In their paper the grid is tested by applying it to two company case studies, Ericsson (telecoms) and Holmen (paper industry), and in so doing Lind and Strömsten recognise that businesses have a mix of customers that may have a different relationship with the business, and hence may utilise more than one form of CPA. This enables a brief return to CRM, in that CRM is about understanding and maintaining positive relationships with customers (Blattberg and Deighton 1996) to enhance overall profitability. Supplier-customer relationships contains a complex array of 'formal and informal exchanges' (Stein *et al.* 2013) and as such requires a range of information, not all of which will be financial, but should include the knowledge and expertise of those in contact with the customer (Roslender and Hart 2010; Stein *et al.* 2013). CRM is about gaining an insight into the customer preferences and behaviour (King and Burgess 2008) to develop mutually beneficial relationships (Gronroos 1990). CRM systems should be designed to capture as wide a range of information as possible (Verhoef and Lemon 2013). Although Roslender and Hart (2010) suggest that the customer should be involved in this process Arbough and Sexton (1997) identified that customers can be reluctant to share information with suppliers. This is particularly true of business-to-business relationships where negotiation is involved, however, note the earlier comments on the findings of Chang *et al.* (2013) that better mutual outcomes could be achieved through sharing information.

Research supports the view that CRM systems can generate better firm performance (Ryals 2005; Gupta *et al.* 2004) and that developing a better understanding of how the firm can add value to customers could lead to changes in the way they are managed (Verhoef *et al.* 2007). Interestingly, Stein *et al.* (2013, p.855) identified that few firms utilise CRM data at an executive level in the organisation, but that it is 'structured and prepared to provide tactical guidance for managing individual customers and individual sales opportunities'. Different types of relationships, however, require different strategies and tactics, and therefore, as noted by Johnson and Selnes (2004), firms are managing a portfolio of customers. As such, firms should be striving to 'optimise the risk and return of their customer portfolios by structuring the mix of customers to reduce vulnerability and volatility of cash flows' (Verhoef and Lemon 2013, p.9). Firms

should be seeking to maximise value from a diverse portfolio of customers (Tasari *et al*. 2011).

References

Al-Mawali, H., Zainuddin, Y. and Ali, N.N.K., 2012. Customer accounting information usage and organizational performance. *Business Strategy Series*, 13 (5), 215-223.

Anderson, E.W., Fornell, C. and Lehmann, D.R., 1994. Customer satisfaction, market share and profitability: findings from Sweden. *Journal of Marketing*, 58 (3), 241-258.

Anderson, S.R. and Kaplan, R.S., 2004. Time-drive activity-based costing. *Harvard Business Review*, November, 136-138.

Andon, P., Baxter, J. and Bradley, G., 2001. Calculating the economic value of customers to an organisation. *Australian Accounting Review*, 11 (1), 62-72.

Arbough, J.B. and Sexton, D.L., 1997. Strategic orientation and customer dependency in discontinuous changing environment: A study of the defense industry. *Journal of Managerial Issues*, 9 (4), 419-439.

Bates, K. and Whittington, M., 2009. The customer is king. Enthroned or in exile? An analysis of the level of customer focus in leading management accounting textbooks*. Accounting Education, an International Journal*, 18 (3), 291-317.

Bell, M.L. and Emory, C.W., 1971. The Faltering Marketing Concept. *Journal of Marketing*, 35 (October), 37-42.

Bellis-Jones, R., 1989. Customer Profitability Analysis. *Management Accounting*, 67 (2), 26-28.

Berger, P.D. and Nasr, N.I., 1998. Customer lifetime value: Marketing models and applications. *Journal of Interactive Marketing*, 12 (1), 17-30.

Berger, P.D. and Nasr-Bechwati, N., 2001. The allocation of promotion budget to maximize customer equity. *Omega*, 29 (1), 49-61.

Bernhardt, K.L., Donthu, N. and Kennett, P.A., 2000. A longitudinal analysis of satisfaction and profitability. *Journal of Business Research*, 47 (2), 161-171.

Blattberg, R.C. and Deighton, J., 1996. Manage marketing by the customer equity test. *Harvard Business Review*, 74 (4), 136-144.

Bonacchi, M. and Perego, P., 2012. Measuring and managing customer lifetime value: A CLV scorecard and cohort analysis in a subscription-based enterprise. *Management Accounting Quarterly*, 14 (1), 27-39.

Boulding, W., Staelin, R., Ehret, M. and Johnston, W.J., 2005. A customer relationship management roadmap: What is known, potential pitfalls, and where to go. *Journal of Marketing*, 69, 155-166.

Boyce, G., 2000. Valuing customers and loyalty: the rhetoric of customer focus versus the reality of alienation and exclusion of (devalued) customers. *Critical Perspectives on Accounting*, 11, 649-689.

Bruns, W.J. and McKinnon, S.M., 1993. Information and managers: a field study. *Journal of Management Accounting Research*, 5, 84-108.

Cadez, S., Marko, H. and Maja, Z., 2005. A cross-industry comparative analysis of strategic management accounting techniques application evidence for Slovenia. Conference proceedings International Conference Enterprise in Transition. 25-28 May 2005. University of Split, Croatia.

Chang, W., Chang, C. and Li, Q., 2012. Customer lifetime value: a review. *Social Behaviour and Personality*, 40 (7), 1057-1064.

Chang, L.J., Cheng, M.M. and Trotman, K.T., 2013. The effect of outcome and process accountability on customer-supplier negotiations. *Accounting, Organizations and Society*, 38, 93-107.

Christopher, M., Payne, A. and Ballantyne, D., 1991. *Relationship Marketing*. Oxford: Butterworth Heinemann.

Cinquini, L. and Tenucci, A., 2007. Is the adoption of strategic management accounting techniques really 'strategy-driven'? Evidence from a survey. Conference paper, Cost and Performance in Services and Operations. 18-20 June. Trento.

Cokins, G.C., Stratton, A. and Helbling, J., 1993. *An ABC Manager's Primer*. Chicago: Irwin Publishing.

Cooper, R., 1991. A structured approach to implementing ABC. *Accountancy*, 78-80.

Cooper, R. and Kaplan, R.S., 1987. *How cost accounting systematically distorts product costs. Accounting and Management: Field Study Perspectives*. Boston, MA: Harvard Business School Press.

Cooper, R. and Kaplan, R.S., 1991. Profit priorities from Activity-Based Costing. *Harvard Business Review*, 69, May-June, 130-135.

Cooper, R. and Kaplan, R.S., 1998. *The design of cost management systems*. Upper Saddle River, NJ: Prentice-Hall.

Cugini, A., Caru, A. and Zerbini, F., 2007. The cost of customer satisfaction: a framework for strategic cost management in service industries. *European Accounting Review*, 16 (3), 499-530.

Dalci, I., Tanis, V. and Kosan, L., 2010. Customer profitability analysis with time-driven activity-based costing: a case study in a hotel. *International Journal of Contemporary Hospitality Management*, 22 (5), 609-637.

Damadoran, A., 2002. *Investment valuation – tools and techniques for determining the value of any asset*. 2nd ed. New York: John Wiley.

Devine, K., Lammert, T. and O'Clock, P., 2005. Product line and customer ROI: the next generation of ABC. *Management Accounting Quarterly*, 7 (1), 1-11.

Dikolli, S.S., Kinney, W.R. and Sedatole, K.L., 2007. Measuring customer relationship value: The role of switching cost. *Contemporary Accounting Research*, 24 (1), 93-132.

Doyle, P., 2007. *Value-based marketing: Marketing strategies for corporate growth and shareholders value*. Chichester: John Wiley.

Dwyer, F.R., Schurr, P.H. and Oh, S., 1987. Developing buyer-seller relationships. *Journal of Marketing*, 51 (2), 11-27.

Ellegaard, C. and Ritter, T., 2006. Customer attraction and its purchasing potential. Paper presented at the 22nd IMP Conference, Milan.

Epstein, M.J., Friedl, M. and Yuthas, K. M., 2008. Managing Customer Profitability. *Journal of Accountancy*, December, 54-59.

Estrella-Ramon, A.M., Sanchez-Perez, M., Swinnen, G. and VanHoof, K., 2013. A marketing view of the customer value: Customer lifetime value and customer equity. *South African Journal of Business Management*, 44(4), 47-64.

Ford, D., Gadde L-E., Hakansson, H. Lundgren, A. Snehota, I. and Turnbull, P., 1998. *Managing business relationships*. Chichester: John Wiley.

Fornell, J.U., 1992. A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, 56 (1), 6-21.

Foster, G., Gupta, M. and Sjoblom, L., 1996. Customer profitability analysis: challenges and new directions. *Cost Management*, Spring, 5-17.

Gronroos, C., 1990. *Service Management and Marketing*. Lexington, U.S.A.: Lexington Books.

Guilding, C., Cravens, K. and Tayles, M., 2000. An international comparison of strategic management accounting practices. *Management Accounting Research*, 11, 113-135.

Guilding, C., Kennedy, D.J. and McManus, L., 2001. Extending the boundaries of customer accounting: applications in the hotel industry. *Journal of Hospitality and Tourism Research*, 25 (2), 173-194.

Guilding, C. and McManus, L., 2002. The incidence, perceived merit and antecedents of customer accounting: an exploratory note. *Accounting, Organizations and Society*, 27, 45-59.

Gupta, S., Lehman, D.R. and Stuart, J.A., 2004. Valuing customers. *Journal of Marketing Research*, 41, 7-18.

Guracaronu, C. and Ranchhod, A., 2002. Measuring customer satisfaction: A platform for calculating, predicting and increasing customer profitability. *Journal of Targeting, Measurement and Analysis for Marketing*, 10, 203-219.

Hajiha, Z. and Alishah, S.S., 2011. Implementation of time-driven activity-based costing system and customer profitability analysis in the hospitality industry: Evidence from Iran. *Economics and Finance Review*, 1 (8), 57-67.

Håkansson, H. and Waluszewski, A., 2002. *Managing technological development. IKEA, the environment and technology*. London: Routledge.

Heitger, L.E. and Heitger, D.L., 2008. Jamestown Electric Supply Company: Assessing customer profitability. *Issues in Accounting Education*, 23 (2), 261-280.

Helgesen, O., 2007. Customer accounting and customer profitability analysis for the order handling industry – A managerial accounting approach. *Industrial Marketing Management*, 36, 757-769.

Herzberg, F.I., 1966. *Work and the nature of man*. Reissue. New York: World Pub. Co.

Holm, M., Kumar, V. and Rohde, C., 2012. Measuring customer profitability in complex environments: an interdisciplinary contingency framework. *Journal of the Academy of Marketing Science*, 40, 387-401.

Horngren, C.T., Foster, G. and Datar, S.M., 2000. *Cost accounting: A managerial emphasis.* 10th ed. Upper Saddle River, NJ: Prentice Hall.

Hoque, Z., 2003. *Strategic Management Accounting: concepts, processes and issues*. 2nd ed. Harlow: Pearson.

Ittner, C.D. and Larcker, D.F., 1998. Are nonfinancial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, 36 (3), 1-35.

Jain, D. and Singh, S.S., 2002. Customer lifetime value research in marketing: A review and further directions. *Journal of Interactive Marketing*, 16 (2), 34-46.

Jacobs, F.A., Johnston, W. and Kotchetova, N., 2001. Customer profitability, prospective vs retrospective approaches in a business-to-business setting. *Industrial Marketing Management*, 30, 353-363.

Jobber, D. and Ellis-Chadwick, F., 2012. *Principles and practices of marketing.* 7th ed. New York: McGraw-Hill Education.

Johnson, D.S., Clark, B.H. and Barczak, G., 2012. Customer relationship management processes: How faithful are business-to-business firms to customer profitability? *Industrial Marketing Management,* 41, 1094-1105.

Johnson, M.D. and Selnes, F., 2004. Customer portfolio management: Toward a dynamic theory of exchange relationships. *Journal of Marketing*, 68 (2), 1-17.

Kaplan, R.S. and Cooper, R., 1998. *Cost and effect: Using integrated cost systems to drive profitability*. Boston, MA: Harvard Business School Press.

Kaplan, R.S. and Narayanan, V.G., 2001. Measuring and managing customer profitability. *Journal of Cost Management*, September – October, 5-15.

Kaplan, R. S. and Norton, D.P., 1992. The Balanced Scorecard: measures that drive performance. *Harvard Business Review*, 70 (1), January-February, 71-79.

Kaplan, R. S. and Norton, D.P., 1996. Using the Balanced Scorecard as a strategic management system. *Harvard Business Review*, (January-February), 75-85.

King, S.F. and Burgess, T.F., 2008. Understanding success and failure in customer relationship management, *Industrial Marketing Management,* 37, 421-431.

Kotler, P., Armstrong, G., Wong, V., Saunders, J. and Wood, M.B., 2010. *Principles of marketing.* 5th ed. Harlow: Prentice Hall.

Kumar, V. and Rajan, B., 2009. Profitable customer management: Measuring and maximizing customer lifetime value. *Management Accounting Quarterly*, 10 (3), 1-19.

Kumar, V., Ramani, G. and Bohling, T., 2004. Customer lifetime value approaches and best practice applications. *Journal of Interactive Marketing*, 18 (3), 60-72.

La Rocca, A., Caruana, A. and Snehota, I., 2012. Measuring customer attractiveness. *Industrial Marketing Management*, 41, 1241-1248.

Langfield-Smith, K., 2008. Strategic management accounting: How far have we come in 25 years? *Accounting, Auditing & Accountability Journal*, 21 (2), 204-228.

Lind, J. and Strömsten, T., 2006. When do firms use different types of customer accounting? *Journal of Business Research*, 59, 1257-1266.

Malthouse, E.C. and Blattberg, R.C., 2005. Can we predict customer lifetime value? *Journal of Interactive Marketing*, 19 (1), 2-16.

McManus, L., 2007. The construction of a segmental customer profitability analysis. *Journal of Applied Management Accounting Research*, 5 (2), 59-74.

McManus, L. and Guilding, C., 2008. Exploring the potential of customer accounting: a synthesis of the accounting and marketing literatures. *Journal of Marketing Management*, 24 (7-8), 771-795.

Mulhern, F.J., 1999. Customer profitability analysis: Measurement, concentration, and research directions. *Journal of Interactive Marketing*, 13 (1), 25-40.

Murphy, J.J., 2005. *Converting customer value: from retention to profit*. Chichester: Wiley.

Nelson, E.C., Rust, R.T., Zahorik, A., Rose, R.L., Batalden, P. and Siemanski, B.A., 1992. Do patient perceptions of quality relate to hospital financial performance? *Journal of Health Care Marketing*, 12 (4), 6-13.

Ngair, E.W.T., 2005. Customer relationship management research (1992-2002): an academic literature review and classification. *Marketing Intelligence and Planning*, 23 (6), 582-605.

Nixon, B. and Burns, J., 2012. The paradox of strategic management accounting. *Management Accounting Research*, 23, 229-244.

Nixon, B., Burns, J. and Jazayer, M., 2011. The role of management accounting in new product design and development decisions. *CIMA Research Executive Summary Series*, 9(1), Nov. London: CIMA

Noone, B. and Griffin, P., 1999. Managing the long-term profit yield from market segments in a hotel environment: a case study on the implementation of customer profitability analysis. *International Journal of Hospitality Management*, 18 (2), 111-128.

Paltschik, M. and Storbacka, K., 1992. Monitoring the customer base to achieve profitability. *Marketing and Research Today*, 20 (3), 155-166.

Payne, A. and Frow, P., 2005. A strategic framework for customer relationship management. *Journal of Marketing*, 69, 167-176.

Pfeifer, P.E. and Carraway, R.L., 2002. Modelling customer relationships using Markov chains. *Journal of Interactive Marketing*, 14 (2), 43-55.

Pfeifer, P.E., Haskins, M.E. and Conroy, R.M., 2005. Customer lifetime value, customer profitability, and the treatment of acquisition spending. *Journal of Managerial Issues*, 17, 11-25.

Pitcher, G.S. (2018) forthcoming – Management accounting in support of strategy, New York: Business Expert Press.

Raab, C., Kayuer, K., Shoemaker, S. and Ng, S., 2009. Activity-based pricing: can it be applied in restaurants. *International Journal of Contemporary Hospitality Management*, 21 (4), 383-410.

Rahman, A. A.A. and Ghafeer, N.A.M., 2014. Using activity-based costing to measure customer profitability: Customer-specific selling and marketing expenses analysis - An application study in an industrial company. *Interdisciplinary Journal of Contemporary Research In Business*, 5 (0), 162-176.

Reinartz. W.J. and Kumar, V., 2000. On the profitability of long-life customer in a noncontractual setting: An empirical investigation and implications for marketing. *Journal of Marketing*, 64 (4), 17-35.

Reinartz. W.J. and Kumar, V., 2003. The impact of customer relationship characteristics on profitable lifetime duration. *Journal of Marketing*, 67 (1), 77-99.

Reka, I. and Vasile, D., 2014. Measuring customer profitability with activity-based costing and Balanced Scorecard. *Annales Universitatis Apulensis: Series Oeconomica*, 16 (1), 52-60.

Rigby, D.K., Reichheld, F.F. and Schefter, P., 2002. Avoid the four perils of CRM. *Harvard Business Review*, 80 (2), February, 101-109.

Roslender, R., Hart, S.J., 2010. Taking the customer into account: Transcending the construction of the customer through the promotion of self-accounting. *Critical Perspectives on Accounting*, 21, 739-753.

Rust, R.T., Zahorik, A.J. and Keiningham, T., 1995. Return on quality (RQQ): Making service quality financially accountable. *Journal of Marketing*, 59 (2), 58-70.

Ryals, L., 2005. Making Customer Relationship Management Work: The Measurement and Profitable Management of Customer Relationships. *Journal of Marketing,* 69, 252-261

Searcy, D.L., 2004. Using activity-based costing to assess channel/customer profitability. *Management Accounting Quarterly*, 5 (2), 51-60.

Shea, V.J., Williamson, S. and Waldrup, B.E., 2012. The ABCs of customer profitability: Insights from the paper industry in Florida. *Research in Business and Economics Journal*, May, 1-9.

Smith, M. and Dikolli, S., 1995. Customer profitability analysis: an activity-based costing approach. *Managerial Auditing Journal*, 10 (7), 3-7.

Smith, R.E. and Wright, W.F., 2004. Determinants of customer loyalty and financial performance. *Journal of Management Accounting Research*, 16 (1), 183-205.

Stein, A.D., Smith, M.F. and Lancioni, R.A., 2013. The development and diffusion of customer relationship management (CRM) intelligence in business-to-business environments. *Industrial Marketing Management,* 42, 855-861.

Storbacka, K., 1997. Segmentation based on customer profitability – retrospective analysis of retail bank customer bases. *Journal of Marketing Management*, 13, 479-492.

Storbacka, K., 1998. Customer profitability: analysis and design issues. In: R. Brodie, R. Brookes, M. Colgate, B. Collins and A. Martin, eds. Proceedings of the 6th International Colloquium in Relationship Marketing. Auckland, University of Auckland, 124-44.

Swift, R.S., 2001. *Accelerating customer relationship management*. Upper Saddle River, NJ: Prentice-Hall.

Tasari, C.A., Bolton, R.N., Hutt, M.D. and Walker, B.A., 2011. Balancing risk and return in a customer portfolio. *Journal of Marketing*, 75 (3), 1-17.

Thralls, E.L., 2008. Payoff from customer profitability analysis. *American Banker*, 173 (8), 10.

Tornow, W.W. and Wiley, J.W., 1991. Service quality and management practices: A look at employee attitudes, customer satisfaction and bottom-line consequences. *Human Resource Planning*, 14 (2), 105-115.

Vaivio, J., 1999. Examining 'The quantified customer'. *Accounting, Organizations and Society*, 24 (8), 689-715.

van Raaij, E.M., 2005. The strategic value of customer profitability analysis. *Marketing Intelligence and Planning*, 23 (4), 372-381.

van Raaij, E.M., Vernooij, M.J.A. and van Triest, S., 2003. The implementation of customer profitability analysis: A case study. *Industrial Marketing Management*, 32 (7), 573-583.

Verhoef, P.C., van Doorn, J. and Dorotic, M., 2007. Customer value management: An overview and research agenda. *Marketing Journal of Research in Management*, 2, 51-58.

Verhoef, P.C. and Lemon, K.N., 2013. Successful customer value management: key lessons and emerging trends. *European Management Journal,* 31, 1-15.

Wang, H-F. and Hong, W-K., 2006. Managing customer profitability in a competitive market by continuous data mining. *Industrial Marketing Management*, 35, 715-723.

Ward, K., 1992. *Strategic Management Accounting*. Oxford: Butterworth Heinemann.

Ward, K. and Ryals, L., 2001. Latest thinking on attaching a financial value to marketing strategy: through brands to valuing relationships. *Journal of Targeting, Measurement and Analysis for Marketing*, 9 (4), 327-340.

Wiley, J.W., 1991. Customer satisfaction: A supportive work environment and its financial costs. *Human Resource Planning*, 14 (2), 117-127.

Yeung, M.C.H. and Ennew, C.T., 2000. From customer satisfaction to profitability. *Journal of Strategic Marketing*, 8 (2), 313-326.

Zaman, M., 2008. The role of customer relationship management (CRM) to develop lifetime customer profitability analysis model (LCPAM): a Case study of Australia. *Journal of International Business and Economics*, 8 (3), 209-221.

Zeithaml, V.A., 2000. Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28 (1), 67-87.

Zhang, J.Q., Dixit, A. and Friedmann, R., 2010. Customer loyalty and lifetime value: An empirical investigation of customer packaged goods. *Journal of Marketing Theory and Practice*, 18 (2), 127-139.