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Market-orientated accounting: information for product-level decisions

Robert Inglis and Robert Clift

RMIT University

Corresponding author:
Robert Inglis
School of Accounting and Law
RMIT University
GPO Box 2476V
Melbourne
Victoria, 3001
Australia
Email: robert.inglis@rmit.edu.au
Telephone: +61 3 9925 5715
Fax: +61 3 9923 5741

Abstract

Purpose –The exploration and description of the interface between the customer component of a market orientation and the accounting information used in making product-level decisions.

Design/methodology/approach – Exploratory/descriptive organisational case study of a multi-function product decision-making setting. Development of a model of the customer-accounting information requirements of a market orientation.

Findings – Describes how customer-orientated product decisions are guided by managers' shared understanding of product-attributes and conceptions of a "product" as a "bundle of attributes, benefits or characteristics". Describes the limited accounting function involvement in product-decisions and the use of customer-orientated and non-financial decision criteria.

Practical implications – A market-orientated approach to business has been associated with increased business performance. The identification and integration of information from the management accounting discipline facilitates the understanding of the resource costs of satisfying individual customer needs and assists in operational level decisions. We highlight potential barriers to the integration of customer-orientated accounting information in product decisions.

Originality/value – There remains a scarcity of marketing and management accounting interdisciplinary case research at the product-attribute decision-making level. Our organisational study provides an insight into the decision-making information and processes at the market orientation and management accounting interface. We provide a framework and suggestions for the further development of interfunctional product-level decision-making.

Key words: Market orientation, customer orientation, product decisions, product-attribute costing, target costing, whole-life costing.

Paper type: Research paper

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Introduction

A substantial body of research literature continues to be developed within the cognate discipline of marketing in which accounting information is implicated yet its role remains relatively unexplored. Reflecting a need to operationalise the marketing concept, a "market orientation" is generally accepted as encompassing an organisational emphasis on competitively and profitably meeting customer needs through the interfunctional coordination of organisational activities (Narver & Slater, 1990; Kohli & Jaworski, 1990).

A principal point of interface with accounting, and a motivation for the continued research into market orientation within the strategy, marketing and management literature, has been the association of an increase in business performance with the adoption of a market-orientated approach (Dawes, 2000). However, measurement of performance (net profit, return on investment) over time has remained problematic with difficulties in the definition, accuracy and consistency of accounting measures used. Additionally, in multi-customer firms, aggregated business-unit level measures have failed to provide an insight into the operational detail of links between customers' heterogeneous product needs and profit. The lack of research at this product decision-making level reflects a gap within the market orientation literature.

With few notable exceptions (Cravens & Guilding 1999; Guilding & McManus, 2002), management accounting research has not taken market orientation as a point of departure, notwithstanding the repeated calls for increased cross-disciplinary research in marketing

and management accounting (Foster & Gupta, 1994; Foster & Young, 1997). This is not to say that the discipline of management accounting has not been forthcoming with a range of accounting techniques and measures associated with customers (Guilding & McManus, 2002). It is more the absence of a framework for linking the accounting information with the accounting requirements of a market orientation, in particular, the three interrelated components of customer, competitor and interfunctional coordination.

Given this absence within the literature, in this study a conceptual model is developed in which the linkages between a market orientation and "customer-orientated" accounting are identified and on which the analysis and description of an exploratory case-study is reported. Given the limited discussion of market orientation within the accounting literature, the development of this model is preceded by a synthesis of the extant market orientation literature with a particular emphasis on the customer-component and accounting-information requirements.

Following the discussion of the research design, a report is presented on the findings of a case study in which the customer component of a market orientation is examined at the product decision-making level. Accounting information used in the decision-making process is identified and discussed in light of the initial conceptual model. Concluding this study is a discussion on the factors inhibiting the further development of a model linking the customer component of a market orientation and accounting information.

Market orientation

The marketing research literature on "market orientation" has primarily developed from the seminal works of Kohli & Jaworski (1990) and Narver & Slater (1990).

Both studies identify the requirement for market information about customer needs over the long-term and the need for organisation-wide integration of information and activities to meet competitively customer needs. While Kohli & Jaworski view "profitability" as a consequence of adopting a market orientation, Narver & Slater highlight the role of profit in decision-making. Narver and Slater (1990, p. 21) conclude that market orientation is composed

> of three behavioral components – customer orientation, competitor orientation and interfunctional coordination – and two decision criteria – long-term focus and profitability.

The Narver & Slater conceptualisation of market orientation has tended to be the preferred one (Morgan & Strong, 1998; Gray & Hooley, 2002) and has been adopted in the present study. Given the breadth of the research, this paper focuses on the customer orientation component of a market orientation and profitability as a decision criterion.

Customer orientation

Conceptually, for organisations to maximise long-term performance requires having a sustainable competitive advantage, which develops from the creation of competitively superior value for customers (Porter, 1985; Aaker, 1992). This conception underpins customer orientation which is defined by Narver & Slater (1990, p. 21) as

> …the sufficient understanding of one's target buyers to be able to create superior value for them continuously (or, per Levitt 1980, to create continuously an "augmented product").

Within the market-orientation context, understanding and creating value for customers requires the coordination of all functional areas and activities within the organisation, a point that distinguishes market orientation as more than just the responsibility of the marketing function (Ruekert & Walker, 1987; Webster, 1988). An understanding of customers entails the acquisition and dissemination of information about customer needs (Kohli & Jaworski, 1990), information that may be derived from relations with customers by any, or a number of, functional area/s. Customer relationships play a key role in the information acquisition process about product attributes - benefits, features and characteristics - required by customers to meet their needs (Zeithaml et al. 2001).

Within the market-orientation literature, customer value, customer product-attribute needs and accounting information are interrelated conceptually from a managerial and economic perspective (Gray & Hooley 2002). Value is created for customers through the provision of product attributes (features, functions, benefits) that better satisfy their needs and/or reduce their acquisition costs and costs in using the product (Porter, 1985; Forbis & Mehta 1981; Day & Wensley, 1988). To do so profitably, the seller requires a detailed understanding of each customer's cost and revenue dynamics (Narver & Slater 1990), a factor that further emphasises the importance of customer relationships, and its own costs to provide the range of product attributes required by each customer. This locates the need for accounting information very much at the product-attribute decision-making level.

Despite the apparent requirement for accounting information at the product attribute level, the predominant use of accounting information (return on investment or assets and profit) has been in the testing of hypotheses relating market orientation to organisational–level performance. While, generally, most studies (Dawes, 2000) have found an association

between market orientation and organisational performance, McNaughton et al. (2002) highlight that

> ..the processes that underlie the links between market orientation, customer value, and financial performance are largely treated as a "black box" (p.991).

This perception of a "black box" is reflective of the limited body of research within the market orientation literature dealing with accounting information in competitively creating customer value. While there is an identified requirement for accounting information about the costs involved in providing a range of customer product-attributes, the operationalisation of cost information at this level within the market orientation literature has been identified as inadequate.

Customer-orientated accounting information

Despite the professed lack of empirical management accounting research "concerned with appraising the incidence or antecedents of customer accounting (CA)" (Guilding & McManus, 2002, p.45), a review of the extant management accounting literature reveals a number of customer-orientated accounting practices/techniques that provide information on or about product-attribute needs.

In function cost analysis (FCA), product functions, i.e., the needs to be accomplished, become the focus of costing and provide an abstract view of what a product offers the customer and

> facilitates the cost-effective design of the product in a way which ensures that it still reflects customer needs (Yoshikawa, Innes & Mitchell, 1995, p. 416).

Function cost analysis and interrelated techniques of value analysis and value engineering (Shillito & De Marle, 1992) are integral to target costing (TC) which seeks to reduce the life-cycle costs of products while ensuring all customer requirements are met (Kato, 1993). Whole-life costing (WLC) considers costs from a customer point of view by highlighting both the acquisition and ownership costs of the customer (Shields & Young, 1991), the latter reflecting an important "product" characteristic in customer purchase decisions (Artto, 1994). Activity-based customer profit analysis (CPA) has enhanced the information content of customer analysis.

However, the practice most in keeping with a customer orientation is the attribute-based costing (AC) approach advanced by Bromwich (1990). Taking an economic perspective, Bromwich (1990) views product attributes, costs and selling price as "deeply intertwined" and "central" to competitive product-market strategy. This approach is one that aims to cost the attributes (or "benefits" as they are more often described) that create value for customers rather than to cost the organisational functions or value chain activities (Bromwich & Bhimani, 1994). Attributes may, for example, include a range of tangible and intangible elements including reputation, image, perceived expertise of sales staff, response time to customer queries, ease of payment, prompt delivery of product and consistent quality levels. Customer preferences for a variation in product attributes provide a basis for competitive differentiation (Lancaster, 1979). Notwithstanding its particular relevance for market orientation there has been little advancement of attribute-based costing in the management accounting literature.

In sum, what is absent from those variously reported studies and techniques associated with customer accounting, is a market orientation as the point of departure. Within a market orientation context, a clear and explicit understanding of customers (changing) product-attribute needs is antecedent to the determination of costs; however, there is little research evidence available that such market-orientated (interfunctionally determined) information forms an integral part of organisation decision-making processes.

A model of customer-orientated accounting information

Notwithstanding the relatively early stages and/or limited development of several of the accounting practices reviewed (Shields & Young 1991; Tomkins & Carr, 1996), conceptual linkages between accounting techniques and market orientation are apparent. In Figure 1, a model is shown which seeks to explicate these linkages between market orientation and accounting and provide an initial framework for exploratory and descriptive research.

Take in Figure 1 here

Within this model, a market orientation is characterised by an organisation-wide (function by function) emphasis on the acquisition (Stage A) of market intelligence about customers (changing) product-attribute needs and competitors' capacity to provide similar offerings. Product attributes embody those characteristics, features and benefits desired by, and that create value (or utility) for, the customer and which the organisation will need to provide competitively in order to generate revenue. While the marketing function (incorporating the sales function in this example) with its external focus is likely to be the initial source of customer contact, each function within the firm may at some point engage with the customer. The accounting function may interact with customers in managing payment

procedures and terms. Relations between General Management and customers may lead to a richer understanding of how the customer is seeking to differentiate its business in the market place and how the (providing) firm may contribute (i.e., assist in creating value for the customer).

Market orientation is further characterised by the sharing of customer (product attribute) information amongst organisation functions (interfunctional coordination) (Stage B). For instance, the General Management and the Production functions may share their recent experiences in dealing with a customer and the customer's need for quicker on-time deliveries to meet competitive pressures. A clear understanding of product attributes by the organisation facilitates decision-making about resources and capabilities required to meet customer needs and are antecedent to the determination of the *costs of creating value* for each customer and consideration of profit. As one of the functions within the organisation, accounting is the most obvious location for, and development of, detailed information regarding the cost of meeting customer requirements (e.g., the cost of decreased delivery times). A number of costing techniques have been identified as in keeping with the customer component of a market orientation with attribute costing proposed as the one most closely aligned. The outcome of the information sharing and decision-making stage is the way each function has responded competitively to satisfying customer needs (Stage C).

This conceptual model raises questions about how interfunctional coordination operates as the mechanism for developing an understanding of customer needs, the establishment of a repository of customer product-attribute information and the way in which customer-orientated accounting information is enveloped in the process of decision-making.

Research design

The primary aim of this study was to describe and explore the way in which customer and management accounting information is used at the product decision-making level. The market-orientation context raises questions about who is involved in product-decision-making (interfunctionally coordinated?), what constitutes a 'product' (extent of attributes?) and how is accounting information used in product decisions (i.e., as a decision criterion).

A case study was chosen to study these phenomena for several reasons. First, it is a particularly useful strategy where little is known about particular phenomena and the existing literature is limited (Eisenhardt, 1989; Yin, 1994; Benbasat, Goldstein & Mead, 1987). While there is a substantial body of literature dealing with market orientation, there is little evidence available with respect to the market orientation and accounting interface at product-attribute level. Second the interfunctional nature of a market orientation required investigation across a number of organisation functions and an exploration of functional communication and connectedness, an aspect that can be addressed through researcher observation Third, the research required access to potentially sensitive and confidential (competitive) information, details of which are difficult to elicit in other forms of data collection.

To explore and describe issues related to the phenomena, semi-structured interviews were conducted across a number of organisation functions, documentary evidence (accounting reports, production documents, sales reports) was reviewed and observations recorded of daily operational activities and processes (meetings, casual conversations, work-flows). Multiple data sources and respondents' review of transcribed interviews strengthened

construct validity and data reliability. Preparation for undertaking the case-study included the development of a detailed case study protocol as advocated by Yin (1994).

The case study site

The case-study organisation, "DS", was in the business of producing "digital graphics" for a range of customers including advertising agencies and magazine publishing firms and had been operating for some 30 years. DS was a wholly owned subsidiary of "AS" and was co-founded by "W" whose family had established AS in the 1930's. In the year prior to undertaking the case study, AS had become the wholly owned subsidiary of an Australian public company (PC) with annual revenues of approximately $A700, 000,000.

Operating in the "Services to Printing industry" (IBISWorld, 2003), DS was small by way of contrast to AS and PC but typical in size -18 personnel - and turnover - $A4,000,000 - of the small-medium enterprise predominant in Australian industry. The General Manager and his personal assistant had recently been transferred (6 months prior) to DS from a related company of AS and all other personnel had been employed at DS for more than 3 years. DS operated as an independent business unit with profit reporting responsibility to AS (see Figure 2). Support services, including accounting, administration, human resources and facilities management were provided by AS with which DS was co-located.

Take in Figure 2 here

Data collection and analysis

Prior theory played a role in the development of an interview protocol by providing a link to initial concepts (Yin, 1994; Perry, 1998) and providing a degree of structure to the data

collection and analysis process (Miles & Huberman, 1994). A topic guide incorporating broad questions about the customer information used by firms was developed from the customer component construct of a market orientation conceptualised by Narver & Slater (1990) and refined by Deshande & Farley (1996). Broad questions about the customer accounting information were developed to elicit data about the accounting information used in product decision-making. The questions were linked to a "provisional 'start list' of codes" (Miles & Huberman 1994, p.58) around which data were analysed.

The questions about customer orientation were preceded by several "over-arching questions" designed to gain a picture of the organisational structure and decision-making processes while providing an opportunity for the respondents to "tell a story" of their experiences related to the research (Perry, 1998).

In keeping with suggestions by Miles & Huberman (1994) and Perry (1998), each organisational function description included conceptual matrix displays and a summary of key issues. Summaries and key issues, linked to the underlying conceptual framework, allowed for analysis and description across functions and the identification and reporting of patterns and themes.

Findings

Data analysis relating to the over-arching questions revealed a high degree of interfunctional coordination between the sales, production and general management functions with information about customers being communicated constantly (daily) and activities coordinated to ensure customers' needs were the focus of operations.

These three functions shared a focus on a range of customer product-attribute needs with a particular emphasis on “product quality” and “turn-around time”. Typifying the importance of the latter attribute the sales manager commented

> ..if you let them (clients) down at the turn-around then you are finished and they go next door (to competitors).

Supporting this emphasis, the general manager (GM), in conjunction with the sales manager (SM) and production manager (PM), had developed formal documents detailing technical production and delivery requirements for each customer order. This “allowed for faster job processing and less errors” (General Manager). The accountant (AC) (whose services were provided from AS) also shared a similar emphasis on these two attributes and had developed cost of rework reports to monitor quality costs.

In addition to product quality and turn-around time, five additional product-attribute needs were identified and shared by the GM, SM and PM (Table 1).

Product attribute	Brief description	Data source - respondent/ evidence
1. Product quality (film specifications)	Reflected in the finished film/picture quality	GM, PM, SM, AC/ Observation
2. Turnaround time	Time taken from receipt of order to the delivery of the finished product	GM, PM, SM, AC/ Documents
3. Customer support	Rapid response to changing client needs understanding of client business.	GM, PM, SM/ Observation
4. Sales service response	Regular (daily) servicing of customers and rapid response to customers calls	GM, PM, SM
5. Customer education –technical expertise of sales reps/ production	Important to be able to advise customers immediately at point of order about (changing) product and process technologies	GM, PM, SM/ Observation
6. Reputation – brand/image	Maintaining image as the leader in digital graphics - core product of high quality	GM, PM, SM, AC
7. Competitive edge	Provide the customer with a competitive edge	GM, PM, SM

Table 1: Product attributes, descriptions and data source

This commonality of views develops a picture of the constituents of a "product" which was different to the initial description of the "product" by these managers as "film separation" (a reference to a central aspect of the physical production process). While product quality and turn-around time were outwardly most important, three product attributes – sales service response, customer support and customer education – were closely linked to the information interface of DS with customers. The way in which managers described and acted upon these three and the two aforementioned attributes suggested that product attributes were not seen as mutually exclusive, i.e., providing five attributes contributed to

DS being able, in turn, to provide two further attributes – reputation/image and competitive edge.

Information and understanding of customer product-attribute needs was acquired by all SD functions through direct interaction with "clients". For instance, the PM indicated that approximately 40% of job orders were made through direct client contact with production, a point later confirmed by both the GM and SM. Daily interaction, predominantly face-to-face, with clients was considered the "norm" for the sales function. In discussing the interaction with clients, the sales manager noted that:

> ..most clients in our market would be looking to see (our) people around 9.00 a.m. We try to take jobs out (to clients) as well, obviously, just to be on their doorstep and be in their face as much as we can.
> (this allows us to) build up a relationship and then things come of it..(SM)

The GM was observed in frequent liaison with customers, with many of whom he had developed relationships as a sales manager some years prior. The importance of maintaining strong customer relations was a recurring theme throughout the data and across all functions, a business philosophy that was attributed by the managers to the founder ("W") of DS. Reflecting the general view of managers, the accountant described W's background:

> …the W (family) name is very well respected in the graphic arts industry and all the big companies have always had long and close relationships with W and his knowledge of the industry is second to none

In addition to the industry reputation of "W" and DS, the close relationship of managers with clients also yielded information about competitor offerings, for example, details of competitor pricing. There was a perception among managers that DS was competitively superior.

Further themes across DS functions that emerged from the data included the "informal" way in which customer information was acquired and disseminated across functions and an emphasis on productivity of (production) resources and increasing sales volumes.

With a focus on direct client contact, no formal, documented market research was undertaken at, or provided to, DS. There was also an absence of formal procedures and processes for recording and communicating the detail of product attributes as described by DS managers (Table 1). With DS functions working within close physical proximity, communications were predominantly face-to-face and occurred frequently throughout the course of the day. The information sharing and understanding of customers' needs seemed to develop from the constant interaction among DS managers and staff.

The emphasis on the (physical) quality of jobs and the ability to process jobs expediently was perceived by DS managers to be the means of ensuring organisation profitability as costs were reduced, productive capacity was better utilised and (potential) sales volumes increased. The AC maintained a similar view stating that

> ..the two major things that determine how well we're going to do as a group (DS and related companies) is the on-time delivery and the amount of rework that we have to do, which is really a reflection of the quality of the work we are putting out.

In costing and pricing jobs, all managers supported the simplicity of the current system of applying a standard hourly rate for all jobs. In discussing the standard rate approach, the AC described and illustrated how he had developed an additional rate-per-hour which was added to the labour rate and encompassed

> …repairs and maintenance, other costs, consumables, technical services, finance, freight (and a profit element which)…brings in a profit factor…which is basically our budgeted profits spread over the number of hours – add that to every hour and we make our budgeted profit.

The constituents of a "product" reflected in the AC's product rate were clearly different from that of the DS managers (Table 1). The standard rate was, however, the predominant accounting information used in daily product-decision-making.

The GM in conjunction with the PM and SM would review the final selling price under a number of situations including the available capacity to produce, the ability to increase price on large jobs (for certain customers) and the level of competition (usually on small jobs). Interestingly, while the one rate per hour for all jobs was seen by DS managers as a simple and effective way of pricing jobs, the AC viewed the bundling of costs and profit into one rate as a means of not identifying sensitive profit margin information, particularly to the sales function, employees of which may at some stage work for competitors and or clients:

> In the past two years we have had a high turnover of reps….
>
> …the minute you tell sales reps we're making 30% profit everyone in the industry knows we're making a 30% profit….(AC)

Customer reports highlighting actual sales revenue for the "top 10" customers were reviewed monthly by the GM and discussed with the SM and PM. The focus of these discussions centred on ways of increasing sales volumes and revenues with recent developments in product and process technologies considered to be a way in which increased benefits could be provided to customers and time and processing costs reduced. Reflecting this aspect of customer orientation, the GM stated that

> …we think their (clients') needs are what's in new technology… which saves them time and costs. There are still customers out there who have no idea of what we do…they don't understand that we go direct-to-plate now, with digital photography, digital printing, digital library, they don't understand that.

While data collection and analysis at DS yielded substantial detail about the customer component of a market orientation, no evidence was found of the customer-orientated accounting practices e.g., attribute costing, whole-life costing and target costing. What emerged from the data was a limited knowledge of, or concern with, accounting information by DS managers other than the aforementioned standard rate and customer reports. The GM and AC did review the monthly "operating statement" which was presented in the "traditional" financial report format, i.e., budget versus actual sales on a monthly and year-to-date basis, expenses by category – materials, labour and production

overhead costs, selling expenses, administration expenses, general overhead and corporate charges.

However, interaction between the GM and the AC was limited with the AC also having responsibility for AS and many related business-units across Australia. The primary decision-making emphasis and activity by DS managers was more centred on those aspects relating to understanding and meeting customer product-attribute needs than the costs directly associated and, as the GM noted in casual conversation, “I am not an accountant”.

Discussion

The findings evidence a substantial connection between customers and the functions at DS which is consistent with the initial conceptual model (Figure 1). The interfunctionally coordinated emphasis on, and commitment to, customers within DS reflects operations at a “relational level” (Helfert et al. 2002) in which “firms have to understand what the individual customers want” (p.1122) in order to respond better to their different needs. The relationships between DS and its customers facilitated learning about the product attributes of most value to customers and provided a means for focusing and organising operational activities. Product decisions were guided by the DS managers’ shared understanding of seven key, interrelated, product-attributes and reflect a conception of “product” as a “bundle of attributes, benefits or characteristics” (Lancaster 1971, 1979; Bromwich, 1994). In terms of the conceptual model (Figure 1), DS had established a key interfunctional source of product attribute information (Stage A and B) to facilitate the development of customer-orientated accounting information.

Despite the presence of this strong customer orientation, the interaction between the accounting function (at AS) and the DS functions reflects what Roslender and Hart (2003) describe as a "traditional relationship" in which "cooperation" is based on a "narrow range of practices", involves only a limited amount of "management accounting content", an accounting emphasis on budgetary control and limited interfunctional coordination (p. 263). Whether this "traditional" relationship developed because the accounting function was not a formal part of the DS organisation structure is unknown, however, the case findings give an insight into several variables which warrant further research.

A similar emphasis was placed by managers on product attributes (Table 1) and non-financial criteria (capacity utilisation, sales volumes and quality levels) when making product decisions and may have influenced the extent of integration with the accounting function and the nature of the accounting information used in decision-making. That is, the motivation for interaction with the accounting function was decreased as a consequence of the decision criteria, customer-orientated and non-financial in nature, used in making product decisions.

A further, and not unrelated, aspect which may also moderate the level of interaction with the accounting function relates to the lack of "accounting orientation" of the DS managers. All showed an aversion to accounting and a lack of familiarity (and knowledge) about accounting, in particular, cost, information. With the exception of sales predictions, no evidence was observed to indicate that the DS functions were using accounting information (other than that provided by the AC) or any other economic analyses in decision-making.

Conversely, while the DS managers may have had a limited "accounting orientation", the AC also acknowledged a limited practical understanding of the way in which DS operated in terms of its customer-orientated activities, i.e., a limited "customer orientation". This understanding may also provide an insight into the extent to which the accounting function had developed (or, indeed, could develop) a market orientation.

These findings raise the issue of whether the development of customer-orientated accounting information within an organisation requires the interactive involvement of the accounting function with other functions in the firm. At DS, the findings suggest that extent of involvement required is one that allows the development of an understanding at the customer-relation level, i.e., the accounting function develops a sense of those attributes of greatest value to customers and the detailed way in which these attributes interrelate (Table 1). In this way the accounting function may bring "formal" management accounting information as an *input criterion* to the more "informal" customer-orientated decision-making level and provide a much needed (missing) link between customers, value and profitability (McNaughton et al. 2002). This market-orientated approach to customer accounting is distinctive in that it brings financial information to a "critically significant" operational level of management decision-making (Vaivio, 1999), a level which has tended to emphasise non-financial data (Perera, Harrison & Poole, 1997).

A proposition that develops from these findings is that it may be advantageous to include the accounting function within the firm's formal organisation structure, i.e., it becomes an integral part of both the formal and "informal" communication exchange. In this way, a "degree of consensus" or shared interpretation on the meaning of information may develop (Day, 1994). Furthermore, the firm's level of market orientation will be higher where this

occurs and involves the development and exchange of customer-orientated accounting information at the product (attribute) decision-making level.

This is not to say, however, that the structural location and functional interaction of the accounting function is necessarily sufficient to "create" a market orientation and the customer-orientated accounting information proposed above (and in the initial model, Figure 1). The DS case findings suggest the need for organisational erudition such that managers become au fait with developments in management accounting and market orientation and the way in which these interrelate. The DS case findings support those reported by Waldron (2005) who highlights the usefulness of an interface between functional areas where there is a reported lack of knowledge of management accounting amongst other employees.

Narver et al. (1998) propose the use of both structured education programs ("programmatic") and customer-based experiences ("market-back") in developing "a critical level of understanding". The active participation of the accounting function would seem critical to the former and its inclusion within an interfunctionally-coordinated organisation structure equally as critical to the latter. In this way, a market-orientated approach to customer accounting may bring about a "meeting of the minds" within the firm on notions of "product" and "value".

Revisiting and broadening the scope of the interfunctional emphasis of the target costing (TC) technique to encompass a more extensive range of (less tangible) product attributes would provide a logical means of facilitating implementation of such an approach. Attribute costing, in particular, and whole-life costing also offer relevant theoretical, but

less well researched and reported, approaches to implementation which command further examination.

Conclusion

The DS case may be viewed as atypical in some respects (e.g., a SME with relatively "unsophisticated" marketing and accounting techniques), however, it offers valuable insights into issues of organisation structure, notions of "product", functional composition and integration (information sharing). The findings highlight the way in which antecedent information for customer-orientated accounting information, i.e., customer product-attribute needs, may develop from an organisation's interfunctional relations with customers, while also providing an insight into factors that may moderate the extent to which such accounting information may develop.

A lack of day-to-day or regular interaction by the accounting function with other organisational functions may impact upon the extent of the accounting function's understanding of that particular firm's business, its accounting information needs and market-orientated philosophy. This impact may be heightened by the informal development, communication, and sometimes tacit nature, of customer information within the organisation, i.e., the accounting function may not develop sufficient understanding of customers' (changing and interrelated) product-attribute needs from more formal information systems. For organisations that adopt a market-orientated approach to business, the lack of development of market-orientated accounting information may, in turn, limit the effectiveness of this approach to satisfy customer product-attribute needs at a profit.

In embracing a market-orientated approach to customer accounting, interfunctional coordination and communication emerges as a critical step in the process and requires a sharing of broader views on the interrelated conceptions of the constituents of "product" and "value".

What remains then as challenging research is the examination of how to develop and implement market-orientated customer accounting within organisations, research which would respond to the call from the marketing discipline for "evaluative empirical research" in how to develop market orientation (Harris, 2002, p. 604). The conceptual model developed, and case findings discussed, in this study provides a basis upon which further research may be undertaken.

The limitations of the single-case study adopted in this study also provide opportunities for future research. Clearly there remains great scope for research across a range of different industry environments, different sized and functionally structured organisations and product-decision settings. While acknowledging the usual constraints of time, resources and unencumbered access within organisations in undertaking case research, future studies may benefit from data obtained from customers about the case organisation's way of doing business and perceptions about its market orientation. In the DS case, such data may have provided additional confirmatory evidence, for example, about its "long-standing" reputation and history of close relationships with customers. Additional data from within the parent company and/or related business units may have also provided a better understanding of the influence/s of its immediate operational environment.

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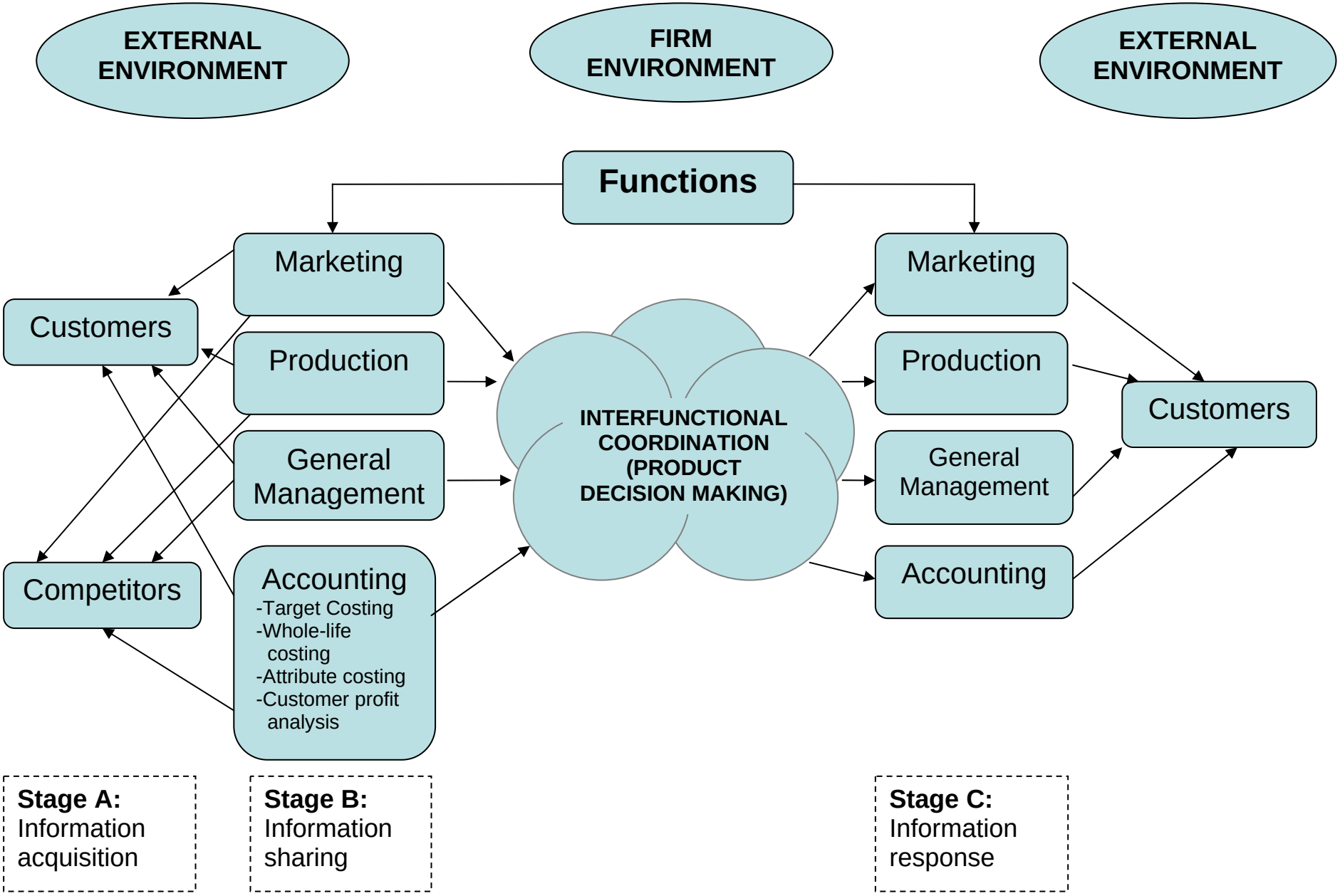

Figure 1 Market orientation and accounting

Figure 2: Organisational structure - DS, parent and related companies