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Value Creation and Business Models: Refocusing the Intellectual Capital Debate

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ABSTRACT

There is currently significant debate worldwide regarding business reporting. The concept of the 'business model' has entered into the discourse, as has the concept of 'integrated reporting', adding to the established debate regarding accounting for intangible assets and, more generally, intellectual capital (IC). Despite the tradition of extensive interdisciplinary borrowing in accounting, relevant literatures on business models and on modern managerial perspectives on competitive advantage have, to date, largely been ignored within the accounting literature. The main contribution of this conceptual paper is to identify and discuss the key features of these literature strands and their linkage to contemporary debates on narrative reporting. These conceptual linkages between IC, value creation and business models are illustrated by means of interview evidence from eleven company cases. It is concluded that the business model concept offers a powerful overarching concept within which to refocus the IC debate. The concept is holistic, multi-level, boundary-spanning and dynamic. The analysis supports the current calls for integrated disclosure around the central business model story. Suggestions for future research are offered.

Keywords: business model; business reporting; dynamic capabilities; integrated reporting; intellectual capital; narrative reporting; story; value creation

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1. Introduction

Narrative reporting is now firmly established in the IASB *Framework for the Preparation and Presentation of Financial Statements* as a crucial complement to the financial statements in the annual report (IASB, 2001, §13). In the aftermath of the financial crisis, there is significant debate in the UK, Europe and worldwide regarding how best to develop and regulate narrative reporting in the future (e.g. BIS, 2011; FRC, 2011; EFRAG, 2010; FASB, 2009). This debate comprises two related issues. First, there is concern that annual reports are becoming too long and complicated, such that key messages are being lost 'in a sea of detail and regulatory disclosures' (Treasury Committee, 2009, §221). The UK regulator has issued proposals for cutting clutter from the annual report (FRC, 2011), by eliminating immaterial and unimportant disclosures. This represents a bottom up approach. Second, a top-down, integrated approach is being proposed in the form of a call from various quarters for business models to be explained in the annual report (ASB, 2009; BIS, 2011; IIRC, 2011). The present paper addresses the latter of these proposals.

A business model articulates how the company will convert resources and capabilities into economic value (Teece, 2010). This model makes visible how the company acquires and uses different forms of capital (physical, financial and intellectual) to create value. The implicit view underpinning the top-down approach to business reporting reform is that an organisation's business model is central to an integrated reporting framework and that a clear articulation of this model can assist in the identification of unnecessary detailed disclosures.

Intellectual capital, a form of capital of growing importance, refers to intangible resources which create company value (Ashton 2005) by giving the company a competitive edge (Edvinsson & Malone, 1997; Stewart, 1997).[1] Thus, both the

[1] Although the boundary around the IC construct is not clear (Mouritsen, 2003), IC is generally recognised to comprise three main categories: human capital, structural capital and relational capital (Meritum, 2002, p. 63), with each category comprising multiple lower-level components (see Beattie & Thomson, 2004). Human capital is the knowledge, skills, experiences, and abilities of people. Structural capital comprises organisational routines, procedures, systems, cultures and databases. Finally, relational capital is the resources linked to the external relationships with, for example, customers, suppliers, or R&D partners.

intellectual capital concept and the business model concept concern the transformation of resources (capital) into value. While physical capital and financial capital are currently recognised in the financial statements, few categories of intellectual capital are recognised. Yet intellectual capital is documented as the most important type of capital (World Bank, 2006; OECD, 2006) in the knowledge economy and economies dominated by service industries. This has led to concerns that financial statements have become less value-relevant with companies being mis-valued (Lev & Zarowin, 1999; Zéghal & Maaloul, 2011). As an alternative to recognition, some intellectual capital components may be mentioned within the narrative sections of the annual report. The presence of intellectual capital is, however, not a sufficient condition for the creation of value. The intellectual resources must be used (often in combination with other, tangible assets), to engage in value-creating activities. Thus narrative intellectual capital reporting frameworks, such as that proposed by the Japanese government (METI, 2005), call for not only the description of intangible resources, but also the associated capabilities and the nature of the competitive advantage which using these resources gives.

Since 2010, the UK Corporate Governance Code, which is mandatory for listed companies under Stock Exchange rules, requires directors to include an explanation of their business model in the annual report (FRC, 2010). While the mandatory Business Review includes no specific requirements in relation to business models and intellectual capital (Companies Act, 2006), the non-mandatory IFRS *Management Commentary Practice Statement* (IASB, 2010) calls for discussion of intellectual capital. The non-mandatory UK narrative *Reporting Statement* (ASB, 2006), which retains a legacy influence, also encourages discussion of resources such as intellectual capital. Recently, the BIS Consultation Document (2011) has proposed that this Reporting Statement be revised to replace the current Business Review and Directors' Report with a high-level Strategic Report and an Annual Directors' Statement. The government response, following an analysis of responses, is to proceed with this, to 'allow companies to tell an integrated story in their own words, starting with their business model and strategy' (BIS, 2012, p.4). Thus, listed companies face a mixture of mandatory and best practice guidance at national and supra-national level in relation to reporting on the intertwined concepts of intellectual capital and the business model.

This paper examines business reporting and the business model concept from the perspective of intellectual capital, viewed as a key value driver in the knowledge economy and hence a crucial element of the business reporting model. In a critical commentary on the field of IC accounting research, Bukh (2003), a leading IC researcher, calls for more research into how company management 'perceive the company's business model and communication on strategy and value creation' (p.55). Yet ten years on, relevant developments in the strategic management literature and in the literature on business models have had little impact on the field of IC accounting. The main contribution of this conceptual paper is to identify and discuss the key features of these literature strands and their linkage to contemporary debates on narrative reporting. These conceptual linkages between IC, value creation and business models are illustrated by means of interview evidence from eleven illustrative case studies. Siggelow (2007) argues that the use of case studies in this way is valuable as it provides concrete examples of constructs and offers the opportunity to get closer to these theoretical constructs and the relationships between them.[2] Using this approach, the present paper responds to Bukh's call.

It is concluded that the business model concept offers a powerful overarching concept within which to refocus the IC debate. The concept is holistic, multi-level, boundary-spanning and dynamic. It is further shown that key concepts in the strategic management literature can usefully inform the business reporting debate. The analysis supports the current calls for integrated disclosure around the central business model story.

The remainder of this paper is structured as follows. The next section introduces to the accounting literature relevant strands of literature from the management discipline, in particular the field of strategic management. Section 3 reviews developments in IC reporting and business reporting generally from the perspective of the accounting discipline. Section 4 offers a discussion, supported by illustrative interview evidence, which draws out the linkages between these distinct literatures, synthesising the key elements of relevance to the central research issue – the future of

[2] Case studies can also be used to motivate a research question and generate theory (inspiration) (Siggelkow, 2007).

business reporting and the implications for the IC research agenda. Section 5 offers concluding remarks.

2. Management perspectives on IC, value creation and business models

In this section the key concepts in the intellectual capital, strategic management and business model literatures are set out, revealing their interconnectedness. The concepts are: resources, competitive advantage, strategy, dynamic capabilities, path dependency and business model. Further, by tracing the evolution of each literature in response to environmental changes and internal critique, the strengths and weaknesses of each perspective is revealed, thereby uncovering the potential of each perspective to inform to the business reporting debate.

Literature regarding value creation and value delivery can be found in a variety of disciplines, principally economics, management and accounting. Traditionally, accounting has borrowed concepts from economics, with accounting being concerned with value realisation by means of the recording of economic transactions. However the economic theory of the firm has taken a managerial turn in modern times.

Beginning around the 1980s, and linked to rise of internet, the traditional economic theory of the firm (as developed by Coase, 1937; Jensen & Meckling, 1976; Williamson, 1985 and others) has been challenged. The changed business landscape has often been described as a ‘knowledge economy’, with the value-creating knowledge resources frequently being referred to as ‘intellectual capital’, a term borrowed from the management discipline (e.g. Stewart, 1997; Roos, Roos, Edvinsson & Dragonetti, 1998).[3] This rise in knowledge resources served to change the nature of sources of competitive advantage.

During the 1990s and early 2000s, a proliferation of IC frameworks or models were proposed (e.g. Edvinsson & Malone, 1997; Sveiby, 1997; Lev, 2001) to assist in the measurement, management and reporting of IC. These models originated in the management discipline as they were developed primarily to support the *management* of IC. Many of these frameworks measure IC using a range of indicators, including

[3] The crucial role played by knowledge resources in production processes has, in fact, been recognised by political economists for over a century, a fact noted by Hunter et al. (2012, note 5).

non-financial indicators. Ricceri (2008) offers a comprehensive review of 36 such frameworks, distinguishing between those adopting a stock versus a flow approach (stock approaches seek to *measure* the value associated with IC while flow approaches seek to capture the *process* by which value is created by IC).

The central concept in these models was that of IC (in its various forms) as knowledge *resources*. Frequently mentioned related concepts are competences, activities and strategy. However, there is a notable lack of mention of business models. The frameworks and models were developed largely from management *practice*, and included little in the way of formal theory.

Although it is seldom explicitly stated in IC accounting studies, the basis of the IC field is the resource-based view (RBV), a strategic management perspective developed in the 1980s and early 1990s by Wernerfelt (1984) and Barney (1991).[4] Prior to this, the connected issues of company strategy, competitive advantage, and company performance were theorised using the economics-based industrial organisation literature, which emphasised the role of factors *external* to company (the structure-conduct-performance paradigm) (Porter, 1979, 1980, 1985).[5] By contrast, the RBV emphasised *internal* sources of sustained competitive advantage, in terms of the ability to acquire key resources and capabilities[6] and have in place an appropriate organisation to use them. As knowledge came to be seen as a key strategic resource, this view, which retains the rationality assumptions of the neoclassical economic theory of the firm gained popularity.[7]

In a recent review and critique of this influential perspective, it is concluded that one of the RBV's main weaknesses lies in the narrow conceptualization of a firm's competitive advantage' (Kraaijenbrink, Spender & Groen, 2010, p.349). They argue that the acquisition and use of key resources is neither a necessary nor sufficient condition for sustained competitive advantage, unless the knowledge of management

[4] For a recent review by one of the originators of the RBV, see Barney & Clark (2007). Initial insights into this view were provided by Penrose (1959).
[5] For example, Porter's competitive forces approach.
[6] Such resources and capabilities are: valuable, rare, inimitable and non-substitutable.
[7] There is a consensus that the RBV is *not* a theory of the firm per se, as it does not explain the existence or boundaries of the firm; rather it is a theory of sustained competitive advantage (Kraaijenbrink et al., 2010).

regarding how to exploit a bundle of resources (the Penrosian[8] acts of entrepreneurial imagination) is viewed as a resource itself. It is argued that the attributes of different types of resource[9] need to be theorised, as well as the dynamic aspects of sustained competitive advantage under a RBV.[10]

One of these criticisms was explicitly addressed in a key development of the RBV, the dynamic capabilities view, which is currently the most vibrant line of research in the strategic management field and which has gained traction beyond this home knowledge domain. In their seminal work, Teece, Pisano & Shuen (1997) defined dynamic capabilities as 'the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments' (p.516). At this time, internet development had drawn attention not only to knowledge as the key resource, but also the need for business to monitor markets and technologies and have the ability to sense when and how to change and adapt and the ability to execute those changes swiftly (p.520).

Teece et al. (1997, p.518) argue that sustained competitive advantage is determined by the company's organisational processes (routines), specific asset position (the distinctive assets that cannot be purchased in the market)[11] and the paths available to it (strategic alternatives). These are the three fundamental units of analysis in this strategy perspective. Processes and position jointly encompass competences and capabilities. Organisational processes are viewed as having a coordination role, a learning role and a reconfiguration role; these three roles are, respectively, static, dynamic and transformational. In this dynamic view of sustained competitive advantage, the notion of 'path dependencies' (i.e. the idea that both a company's present situation and the options for what it can become in the future are influenced by the path already travelled) emerges as key. For competitive advantage to be sustained, it must be difficult for a competitor to imitate. This, in turn, depends jointly

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[8] See Penrose (1959).

[9] For example, knowledge is a non-rivalrous resource.

[10] The other two weaknesses are the 'indeterminate nature of two of the RBV's basic concepts – resource and value. Definitions of the core concept of 'resource' are typically all-inclusive of assets, capabilities, processes, etc. (e.g. Barney, 1991), such that it is not possible to identify anything of strategic value that is *not* a resource. Definitions of 'value' are made in terms of competitive advantage and so are tautological.

[11] These assets are typically not recognised in a company balance sheet, precisely because they are not acquired through a market transaction (Teece et al., 1997, note 31).

on the ease of replication (i.e. the extent to which productive knowledge can be codified) and the effectiveness of intellectual property rights.[12]

In a significant contribution, Eisenhardt & Martin (2000) argue (based on a large base of empirical case studies of management practice) that, while dynamic capabilities are idiosyncratic and path dependent, they have significant commonalities across firms (commonly referred to as best practice) in markets characterised by moderate velocity. These are markets where the industry structure is stable, the market boundaries and market participants are clearly defined and the business model is clear, changing in a linear predictable way (p1115). The existence of these commonalities indicates that dynamic capabilities are not a sufficient condition for competitive advantage. These commonalities are, however, found to vary with market dynamism. In high-velocity markets, the dynamic capabilities that drive competitive advantage are argued to themselves be unstable processes that may not be sustainable. Business models in such markets are 'unclear' (p.1111). Relatedly, Lippman & Rumelt (1992, cited in Teece et al. 1997) argue that certain sources of competitive advantage (i.e. business models) are not fully understood by the company itself, because they are so complex.

Barreto (2010) notes the many overlapping definitions of the dynamic capabilities concept and, based on his review of research into dynamic capabilities, suggests that 'a dynamic capability is the firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base' (p.271). Thus, the concept of dynamic capabilities is a multidimensional construct.

The economics discipline and the managerial RBV both regard firms as autonomous entities striving for competitive advantage. In an influential article, Gulati, Nohria & Zaheer (2000) discuss the importance of the strategic network within which the firm is embedded as a source of value-creating resources and capabilities. Since these networks are idiosyncratic and path-dependent, the emergent 'network resources' tend to be relatively inimitable and non-substitutable. It is generally accepted that the

[12] Process technology (as opposed to product technology) cannot readily be observed by competitors; especially as many organisational routines are very tacit and may also be context-dependent.

potential benefits arising from such alliances must be weighed against the protection of core knowledge assets. Relational capital based on mutual trust and interaction at the individual level between alliance partners has, however, been shown to curb such opportunistic behaviour (Kale, Singh & Perlmutter, 2000).

Alongside this literature on strategic competitive advantage, the business model literature emerged in the mid-1990s along with the rise of the Internet (Zott, Amit & Massa, 2011, p.1022). However, as Teece (2010) notes, the concept has no established theoretical basis in either the economics or the business disciplines. Since then, research using the concept has exploded, as documented in a recent review of the business model literature (Zott et al., 2011). Definitions abound, with most overlapping only partially (for a useful summary, see Zott et al., 2011, Table 1). Common terms used are: resources, competencies, value (creation and delivery), strategy and competitive advantage. The overall nature of the business model is variously described as a 'story', a 'representation' and 'architecture'. The business model concept has been shown to perform a variety of roles Baden-Fuller & Morgan (2010). One role is a fundamental classification role (either a bottom-up taxonomy grounded in real-world examples or a top-down typology generated from theory). Beyond this, business models are viewed as serving the function of 'model organisms' (as in biology) to be investigated in order to understand how they work and 'recipes' which demonstrate how to do something.

Teece (2010), the leading writer on the dynamic capabilities concept, discusses the link between strategy (dynamic capabilities) and business models. He concludes that a business model is more 'generic' than a business strategy, observing that business models are often quite transparent. He goes on to argue that sustainable competitive advantage requires both a successful business model and an effective strategy to limit imitation by competitors. This distinction could, however, be interpreted as simply relating to the level of detail involved, with strategy being a detailed description of the business model. Alternatively, or additionally, the distinction could be viewed in terms of a static strategy versus a dynamic business model, emphasising the role of dynamic capabilities in a transformational business model (Demil & Lecocq, 2010).

In their review, Zott et al. (2011) conclude that the business model is a new unit of analysis distinct from the product, firm, industry or network. In addition, business models are a holistic way of describing how companies operate, seeking to explain value creation, value delivery to customers and value capture by the company (realisation to accountants).

3. Accounting literature on IC, value creation and business models

The financial statements are the accountant's traditional tool for reporting information relevant to company valuation. However, the pre-requisites for assets to be recognised on the balance sheet are that (i) it is probable that expected future economic benefits attributable to the asset will flow to the entity and (ii) the cost of the asset can be measured reliably. Additionally, under *International Accounting Standard 38,* to be recognised on the balance sheet, intangible assets (defined as 'an identifiable non-monetary asset without physical substance') (IASB, 2004) must meet an identifiability criterion. This also has two aspects: the asset must be separable from the entity and arise from a contractual or legal right. IC, therefore, generally lies outside the traditional financial accounting / reporting framework, given that major components of the concept do not meet several of these criteria (Roos et al., 1998).

In terms of the income statement, the accounting for expenditure on intangibles is currently treated asymmetrically for purchased versus internally generated intangibles. Based on a survey of preparers, Hunter, Webster & Wyatt (2012) conclude that the accounting treatment in the financial statements should 'elucidate the strategic implications of the different types of intangibles for future output' (p.104). In terms of classifying intangibles expenditure, an approach that takes a *strategic* focus is advocated, rather than the traditional accounting functional categories based on product costs (cost of sales) or operating costs.[13]

Measurement issues in financial reporting statements are addressed in the ICAEW's (2010) report on business models in accounting, which focusses on the *economic* theory of the firm. The business model reflects management intentions. It describes what a firm does internally versus what it does through the market. In relation to

[13] They propose verifiable property rights (i.e. the right to determine the use of the asset) as the critical attribute for determining expense versus capitalisation treatment.

measurement, it is concluded that historic cost is likely to be most relevant for assets intended for use or creation within the firm, while market prices (fair value) are likely to be most relevant for assets intended for exchange in the market.

In an interesting discussion of how the business model concept has influenced financial reporting, Linsmeier (2011) notes (1) that there is no agreed upon definition of business model in financial reporting; and (2) that standard-setters have tried to distinguish the notions of the business model (defined as 'a matter of fact that can be observed by the way an entity is managed' (IFRS 9, BC27)) and managerial intent (in the mind, therefore difficult to audit). He concludes that the two notions are essentially the same and identifies several instances where financial accounting practices (recognition, measurement, classification or disclosure) already are grounded in conceptions of the business model/managerial intent.[14]

Outside the literature on financial statements, around the 1990s, due to the explosive growth in the knowledge economy, there were increasing concerns in the financial accounting field concerning the relevance of the traditional accounting model in the changed business environment. These concerns revolved around the relevance of the entity concept in the face of strategic alliances, the relevance of an historical perspective in rapidly changing environments requiring flexibility, and the focus on financial information as indicators of success (for a review, see Beattie, 2000). The response by the accountancy profession was to suggest a *comprehensive* model of business reporting which included eight main elements (AICPA, 1994). In this model, the financial statements were but one of the elements, the others being:

- broad objectives and strategy
- scope and description of business and properties
- impact of industry structure on the company
- information about management and shareholders
- high level operating data and performance measurements
- management's analysis of the reasons for changes in the financial, operating, and performance related data
- opportunities and risks.

[14] Under IAS 37, the timing of recognition in connection with restructuring is determined by managerial intent; under IAS 2 and IAS 16, the classification (and subsequent impairment) of non-financial assets as either inventory of fixed assets depends on the company's business model; under IFRS 8, the identification and disclosure of segments is based on the company's business model.

These additional elements, covering company background, non-financial and forward-looking information, are reported in largely narrative form.

Not surprisingly, due to the stringent criteria for balance sheet recognition, the external reporting of IC became part of this narrative reporting debate. The initial IC models and frameworks proposed in the management literature (discussed in section 2) gave way to a more narrative-based (rather than quantitative measure-based) approach to IC reporting in the business reporting package. For example, the Danish Guidelines (DATI, 2000, 2002; DMSTI, 2003) argue for a separate IC statement comprising a knowledge narrative, management challenges, initiatives and indicators. Similar proposals subsequently emerged from other national government departments (the German Federal Ministry of Economics and Labour in 2004 and the Japanese Ministry of Economy, Trade and Industry in 2005). While the means of reporting in these company experiments comprises narratives, visuals and numbers, Mouritsen, Larsen & Bukh (2001) note that narratives permit the mechanisms of value creation to be accounted for more freely than numbers. Examples include the balanced scorecard developed by Kaplan & Norton (1992) and Sveiby's (1997) *Intangible Assets Monitor*. Some writers view such frameworks as offering possible templates for business model reporting (Nielsen, Fox & Roslender, 2012). Intangibles were formally added as an additional element to the AICPA's comprehensive reporting frameworks as interest in them grew (FASB, 2001).

The non-mandatory Management Commentary Practice Statement issued by the IASB (2010, § 30) identifies 'human and intellectual capital resources' as among the key elements to be discussed in order to provide a context for the financial statements. In the UK, the mandatory Business Review requirements state that critical success factors pertaining to the future development, performance and position of a UK quoted company's business should be in the public domain (DTI, 2005; Companies Act 2006, section 417 requirements). No specific IC disclosure is, therefore, required.

ICAEW (2009) discusses developments in business reporting models (as distinct from business model reporting) since AICPA (1994). Non-financial reporting[15] plays a key role in such models, seeking to overcome the limitations of the traditional reporting model, especially in relation to intangibles (p.37). It is noted, however, that the various IC reporting frameworks that have been proposed have not been widely adopted, the relevant information being highly diverse, company-specific and subject to change. It is concluded that the development of a comprehensive, 'joined-up' model is a 'pipe dream' (p.41). The business model is discussed in relation to success drivers, especially those related to intangibles. The call for disclosure of the business model is viewed as problematic, as there is no clear view as to what such disclosures would contain and how they would be presented. Possibilities are seen to range from high-level descriptions, through qualitative explanations of what makes the business successful to representations of the impact of change. As descriptions become more detailed, it is noted that the proprietary costs associated with disclosure are likely to rise (p.44).

A recent significant global development is the formation of the International Integrated Reporting Council (IIRC), a consortium of leaders from the corporate, investment, accounting, securities, regulatory, academic and standard-setting sectors as well as civil society.[16] In its concept discussion paper, the IIRC defines integrated reporting as follows:

> *'Integrated reporting brings together material information about an organization's strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates. It provides a clear and concise representation of how an organization demonstrates stewardship and how it creates and sustains value. An Integrated Report should be an organization's primary reporting vehicle'* (2011, p.2).

This approach to corporate reporting demonstrates the linkages between an organisation's strategy, governance and financial performance and the social,

[15] Increasingly, the term 'extra-financial is being used in lieu of 'non-financial' (e.g. the rebadging of the EIASM workshop on '*Intangibles, Intellectual Capital and Extra-financial Information*' http://www.eiasm.org/frontoffice/event_announcement.asp?event_id=880, visited 4 July 2012).

[16] The IIRC was formed by the Prince's Accounting for Sustainability Project (A4S) and the Global Reporting Initiative (GRI).

environmental and economic context within which it operates (IIRC, 2012a). Thus, an integrated report is one that effectively integrates environmental, social and governance issues. Eccles & Krzus (2010) refer to this as 'one report: integrated reporting for a sustainable strategy', thereby demonstrating the sustainability agenda origins of this initiative. In mid-2012, the IIRC (2012b) issued a draft outline framework for integrated reporting, which makes clear that the business model is expected to be one of the key concepts underpinning the guiding principles and content elements. The business model is described as 'the process by which [the organisation] seeks to create and preserve value'.

In a wide-ranging study on the concept of integrated reporting, involving interviews with many key participants, it is found that users most value 'connectivity to the business model' in an integrated report (UBS, 2012, p.45). , 'What analysts need is enough information to assess the quality of the business model' (UBS, 2012, p.14). However in an early survey of the annual reports of 298 FTSE 350 companies, it was found that only 27% outline their business model, as required by the current UK Corporate Governance Code (Grant Thornton, 2011). More recently, PwC (2013) report an improvement among the same group. While 77% now refer to 'business model', only 40% provide insightful detail and only 8% integrate reporting on their business model with their strategy and risks (p.4).

4. Discussion with illustrative case studies

This section of the paper draws together key features of the literatures on IC, value creation and business models from the management and accounting disciplines. The objective is to demonstrate that, while terminologies may vary, there are several points of tangency in the concepts used and parallels in the logical reasoning about the relationships between key concepts. Once this is recognised explicitly, the management literature, which is more developed in these areas than the accounting literature, can be mobilised by accounting researchers to move forward the IC research front and inform the debate on business reporting. This continues the tradition of interdisciplinary borrowing in accounting (Beattie & Ryan, 1991).

To assist in this, we draw upon interviews with eleven CFOs of listed UK companies (nine of which were conducted face-to-face, with the remaining two conducted over

the telephone). The central question posed to interviewees was 'what does IC mean to your company and how does it create value?' Interviewees were not explicitly asked about business models, or about change. Nor were they asked about specific issues relating to strategy, such as barriers to imitation or strategic alliances. Thus, the interview evidence used in relation to these issues can be considered free from demand effects. Quotations from the interviews are used to illustrate many of the observations regarding linkages between the literatures, providing concrete examples of the underlying concepts and relationships in the manner advocated by Siggelow (2007). Contextual information relating to each case study is provided in square brackets following each quote: interviewee job title; company stock exchange group; industry; percentage of shareholder value contributed by IC; and most important IC category.

4.1 Limited intersection of management and accounting literatures

Very few of the IC studies published in accounting journals make explicit reference to *any* managerial view of competitive advantage. There are several studies that make the link between IC and the RBV (e.g. Marr, Schiuma & Neely, 2004; Kristandl & Bontis, 2007), but these are published in the management literature or in specialist IC journals. The link between IC and dynamic capabilities has not, however, made any significant impact on the literature.[17] This situation is perhaps consistent with Guthrie et al.'s (2012) finding that the majority of IC studies do not use a framework, although the interpretation of 'framework' is unclear.

It is also notable that IC studies published in the accounting literature (and in the general management literature) do not make any significant use of the business model concept. This can be explained by the often atomistic focus of IC studies on individual resources (IC components and categories). Whilst there has been some recognition that synergies exist in operating categories of IC together, creating a

[17] A Google Scholar advanced search on the phrase 'intellectual capital' plus the words 'dynamic' and 'capabilities' anywhere in the article did not result in 'hits' in many articles outside the management discipline (as at 4 July 2012). Pöyhönen & Smedlund (2004) make this link in a specialist IC journal, however the paper has not been highly cited. The IC book by Ricceri (2008) also makes the link but again this book has not been widely cited. The research book form of publication is, unfortunately, often overlooked by researchers, perhaps because books are not covered in the electronic database searches that are undertaken.

fourth IC element, termed connectivity capital (Bjurström & Roberts, 2007), there has been little recognition of the embeddedness of IC in an overarching business model.

The reverse association is also absent. As discussed in Section 3, several recent papers and reports discuss the business model in accounting, however this discussion relates to the business reporting debate, not the IC debate per se. The notable exception in relation to the IC accounting literature is Bukh's (2003) critical commentary paper, which points to evidence that investors and analysts don't seem to want IC disclosure, despite the clear importance of intangibles. Bukh resolves this apparent paradox by arguing that IC disclosure needs to 'be disclosed as an integral part of a framework illuminating the value creation processes of the firm'. He goes on, 'The emerging practice with respect to intellectual capital offers such a framework for disclosing the business model of the knowledge-based company' (p.49). The interview evidence presented in the present paper supports Bukh's resolution, by revealing that corporate executives do view IC as part of a holistic business model concept, even if they seldom use the term 'business model'.

4.2 Business models, commonalities and asset inimitability

It was shown in Section 2 that the business model concept has successfully colonised the strategic management literature, acting as a holistic, overarching concept. Key component concepts are resources, competencies, value creation and value delivery, strategy and competitive advantage. Thus, the business model is a system-wide, description of how companies do business. As a holistic concept, the 'connectivity' between the various elements (i.e. the glue) is part of the model itself.

Firms that address the same customer need (even with similar product market strategies) can have very different business models (Zott & Amir, 2008). Several interviewees offered support for this view:

> *"One company that competes quite differently is* [name of competitor]. *But they compete through a series of two hundred and fifty dealers, so their business model is very different to ours…. So to try and compare ourselves to them would be fairly meaningless."*
>
> [CFO 4, FTSE 250, Industrial goods & services, 76-100%, Human capital]

"Well our business model is completely different to almost anyone else in the market."

[CFO 10, AIM, Financial services, 76-100%, Human capital]

By contrast, Eisenhardt & Martin (2000) identify significant commonalities in relation to the dynamic capabilities of a business model in low and moderate velocity markets. One case company in the chemicals industry (a low velocity market) referred to the existence of such commonalities in terms of ease of replication:

"If everyone in the company left tomorrow would we be able to rebuild the company reasonably quickly? I think the answer is probably 'yes' because all the patents would still be there, all the documentation relating to the IP would still be there, the relationships with the suppliers and the customers would still be there. Yes it would be a problem, but you could do it...we recruit highly skilled people, but those skills are skills which have been developed through the education system and through university. If we lost a PhD we could recruit another one."

[CFO 9, AIM, Chemicals, 76-100%, Human capital]

So what, then, are the logical links between IC assets, value creation and the business model? IC is bundled up in the processes and resources that are capabilities and competences that can (especially if difficult to imitate) generate competitive advantage and hence create value. It is surprising, therefore, that the IC literature appears to make little use of the management literature relating to business models.

When asked in the interviews about what IC meant to the company and its role in value creation, most interviewees offered a description about the company's crucial principal form of IC and how this was used to deliver a value proposition to the customer that resulted in sustained competitive advantage (Barney, 1991; Kraaijenbrink et al., 2010). For example:

"We have a competitive advantage because there are longstanding relationships with our customers between our people and them."

[CFO 4, FTSE 350, Industrial goods & services, 76-100%, Human capital]

"The only assets we have in our business are our people….[IC]*'s the knowledge that we've got in our business which happens to be in our database on clients and candidates and their buying patterns and what they look for."*

[CFO 5, FTSE 350, Industrial goods & services, 26-50%, Structural capital]

Inimitability of resources and capabilities is viewed in the management literature as a necessary (but not sufficient) condition for sustained competitive advantage (Barney & Clark, 2007). Although this term was not used by the CFOs interviewed, most did identify the aspect of the business that was viewed as unique (or at least distinctive):

> *"As a rental company… in support services, we differentiate ourselves by our service offering – and our service offering is our people."*
> [CFO 4, FTSE 350, Industrial goods & services, 76-100%, Human capital]

> *"Our unique selling point is that we are 50 percent permanent* [X] *and 50 percent temporary* [X]*."*
> [CFO 5, FTSE 350, Industrial goods & services, 26-50%, Structural capital]

> *"If you wanted to create a duplicate* [name of company] *from scratch, you could create the organisational structure with the skills that are required. But ...you wouldn't have values and ethics which actually drive the way we do business as opposed to what we do."*
> [CFO 7, AIM, Industrial goods & services, 51-75%, Relational capital]

It was notable that the differentiators identified most often emanated from the human capital component of IC, viewed as the most important category of IC by six out of the eleven CFOs:

> *"Our relationships with clients and our understanding of them, …is actually what makes us different in the market place."*
> [CFO 7, AIM, Industrial goods & services, 51-75%, Relational capital]

> *"*[What makes our company unique] *is the people, and it's their reputation and their skill…we are quite quick to put out new products, to put them together and then bring them to the market."*
> [CFO 8, AIM, Financial services, 76-100%, Human capital]

> *"We're not very dissimilar to any other professional services business, so we're a people business… we provide is a very holistic service, …it is a very bespoked, proactive, personalised service ...the big differentiator that we see, compared to potential other providers, is technical competence."*
> [CFO 10, AIM, Financial services, 76-100%, Human capital]

4.3 Boundaries, partnering and strategic networks

Management researchers have noted that, frequently, value is no longer created by firms acting autonomously, but by firms acting in conjunction with parties external to the legal entity. This partnering may be informal arrangements with suppliers or formal alliances. In circumstances of this type, the boundaries of the business model

extend beyond the boundaries of the firm (Zott et al., 2011). Boundary-spanning partnering such as this allows both parties to share resources, costs and risks and/or serves to develop dynamic competitive capabilities and mitigate environmental dynamism by fostering dynamic learning mechanisms (Yaprak, 2011; Li et al., 2013). The crucial importance of boundary-spanning value creation activities was identified by several interviewees, in terms of their relationships with suppliers:

> *"It's important we have good relationships with those key suppliers ….we really try and establish longstanding relationships so that we can get into more of a partnership; We work closely with our engine supplier…which makes us more competitive because we can get kit into the market quicker. We invited the CEO of the engine supplier to our conference, and basically said to him 'this is what our strategy is, this is where we're trying to take our business'.*"
>
> [CFO 4, FTSE 350, Industrial goods & services, 76-100%, Human capital]

> "[fostering long term relationships with suppliers] *is important. Who is going to be flexible and who isn't. Who is going to work with you.*"
>
> [CFO 11, AIM, Healthcare, 76-100%, Human capital

The quote from CFO 4 refers to the sharing of strategic intent with an external party, in order to act quickly to maintain competitive advantage. Similarly, CFO 11 highlights the need for boundary-spanning flexibility. Both are implicitly referring to the potential of partnering in maintaining dynamic competitive capabilities.

Other CFOs emphasised the importance of strategic networks (the term used was partnering). These strategic alliances were important for positioning within the industry and were, in themselves, viewed as a source of inimitable firm resources and capabilities (Gulati et al., 2000):

> "*We're in the process of what we call, having long-term partnering agreements*."
>
> [CFO 1, FTSE 350, Industrial goods & services, 76-100%, Human capital]

> *"That first stage of pure research is becoming harder and harder so acquiring knowledge and collaborating with smaller research-based pharmaceutical companies is very important."*
>
> [CFO 2, FTSE 350 company, Healthcare, 76-100%, Structural capital]

These quotations support the view of the business model as a new unit of analysis (Zott et al., 2011). The fact that the boundaries of the business model may extend beyond the boundaries of the firm (Zott et al., 2011) is significant in relation to business reporting, given that the company is the traditional unit of analysis in accounting (the reporting entity). In this context, it is interesting that the draft outline integrated reporting framework states that the full framework will consider reporting boundaries and what information beyond the core reporting boundary should be included (IIRC, 2012b, p.7).

4.4 Change – dynamic and evolutionary aspects

The business model can be used in static sense or in a dynamic sense, as business models change due to internal and external factors, related to markets, technologies and institutions. Dynamic business model descriptions capture this process of change (Demil & Lecocq, 2010). Since the interviewees were not specifically asked about change aspects related to IC and value creation, it is unsurprising that only a few mentioned such aspects (Teece et al., 2007). One CFO explicitly stated that the generic industry business model had changed:

> *"The export model in our lines of business has changed."*
>
> [CFO 1, FTSE 350, Industrial goods &services, 76-100%, Human capital]

Other CFOs referred to external economic conditions driving evolutionary change in some aspect of the business model:

> *"We had to re-train all of our sales force into how to sell into a downturn market."*
>
> [CFO 5, FTSE 350, Industrial goods & services, 26-50%, Structural capital]
>
> *"We're in an evolving state here now, global pharmaceuticals are finding it harder and harder."*
>
> [CFO 2, FTSE 350 company, Healthcare, 76-100%, Structural capital]

CFO 5 is highlighting the need to ensure that the firm's human capital resource (an IC concept) has the dynamic capabilities necessary to sustain competitive advantage (business model concepts).

Change in internal, rather than external conditions also featured in the discussion of business model change. For one firm this internal change involved business model innovation related to technology:

"[The in-house IT platform] *is evolving, so you know we've got live price feeds…and that, ultimately, should allow us to increase the caseload per administrator and also reduce the cost."*

[CFO 10, AIM, Financial services, 76-100%, Human capital]

Two companies in particular described very clearly the process of sensing and surveillance so critical to successful change in the business model (Barreto, 2010). The terms used were 'awareness', 'adaptation' and 'seeing things' in a timely manner:

"Any business like ours that's operating in advanced technology has to innovate…by innovation I mean not necessarily pure research, but being aware of what technology is out there…we look very carefully at what other companies have got which is close to what we've got, and try to make sure that we don't end up being blocked in terms of being able to develop technology in a particular direction, because somebody else has filed a patent in a particular area."

[CFO 9, AIM, Chemicals, 76-100%, Human capital]

"If you are close to your market, and therefore you understand your customers, you will be able to adapt quickly. Those people that don't adapt quickly are those who see things too late."

[CFO 6, AIM company, Financial services, 76-100%, Human capital]

CFO 9 is describing the need to avoid constraints on business model innovation caused by technological 'lock-out', whereby a competitor reduces the available options. CFO 6 is describing the crucial role of management's sensing and surveillance capabilities in successful business model innovation.

4.5 Points of tangency

The interview evidence in sub-sections 4.2 to 4.4 was used to illustrate the conceptual similarities between the IC literature and the managerial strategic management literature (especially the business model literature, which draws upon the RBV and dynamic capabilities literature). In this sub-section a more general comparison is made – between the business reporting literature and the managerial strategic management literature. The arguments and evidence presented above reveal four notable points of tangency in the managerial and business reporting perspectives, despite the use of different terms. First, several accounting writers have documented the use of the metaphor of a 'story' in relation to the value creation process (Holland, 2004, p. *x*). A story is inherently holistic, with cohesiveness being a key attribute. We argue that the current calls for 'business model' reporting and 'integrated reporting'

merely formalise this concept, by signalling a move towards integrated, narrative-based reporting around the central business model story.

Second, the notion of path dependencies (Teece et al., 1997) resonates with the finding of Gibbins et al. (1990) in their seminal qualitative study of external corporate disclosure. They find that corporate history influences a firm's disclosure position (i.e. the stable preference for the way in which disclosure is managed). External disclosure is one small component of the company's entire set of routines and processes and can serve a strategic role in its own right. The competitive disadvantage aspects of disclosure, which are well-understood in the accounting literature (Elliott & Jacobson, 1994), appear in the strategy literature in terms of restricting knowledge flows that would assist imitation by competitors (see Teece et al., 1997, p.526).

Third, one of the most robust findings in the accounting literature concerning analyst and investor needs is that these users want, first and foremost, information to help them assess the quality of management, which is a key human capital resource (ICAEW, 2009, p.43). The dynamic capabilities and business model perspectives offer a conceptual framework for understanding this result. The quality of management is key because it is they who determine the success of the business model, through their sensing and surveillance capabilities, their ability to acquire, combine and utilise valuable, rare, inimitable and non-substitutable resources in ways that deliver a value proposition to customers.

Fourth, the idea of decomposing the business model description into levels of increasing detail (Demil & Lecocq, 2010) resonates with the notion of incorporating a 'drill-down' feature in business reporting models, which allows the user to start at a high level of generality and navigate to lower levels of increasing detail (e.g. ICAS, 1999). It is also consistent with the recent BIS proposal for a high level strategic report with additional detail in other reports. The idea of business models being perceived at multiple levels has also emerged in empirical studies (Nielsen & Bukh, 2011).[18]

[18] In an interesting study of financial analysts (a key user group in business reporting), it is found that the mental models used to understand a company can be viewed as business models of varying degrees of generality. Using a case company, Nielsen & Bukh (2011) investigate financial analysts' perceptions

Yet notable points of contrast between the managerial and business reporting perspectives persist. Financial accounting is a bottom-up, transaction-based micro-level process. To date, the economic theory of the firm has been used to underpin recommendations for measurement in accounting (ICAEW, 2010). By contrast, the information categories in the AICPA (1994) comprehensive model of business reporting offer what might be seen as a meso-level view. Several of the information categories set out in AICPA (1994) align crudely with the issues in the dynamic capabilities view: 'background' elements link into path dependencies; 'industry structure' reflects market dynamism; while 'objectives and strategy' and 'risks and opportunities' align with competitive advantage and business model concepts. The business model is a holistic macro-level view. Viewed in this way, the business model represents a natural top level capstone in a business reporting hierarchy. Thus the managerial theory of the firm is useful for underpinning recommendations for business reporting outside of the financial statements.[19]

5. Concluding remarks

While the accounting model/business reporting debate has primarily been informed by the economic theory of the firm (ICAEW 2010), the IC accounting literature has drawn (often implicitly) on managerial theories of the firm (specifically the RBV). Surprisingly, however, the accounting literature has not forged strong linkages with either the more recent strategy literature or the business model literature, resulting in knowledge residing in disconnected silos. This state of affairs exists despite Bukh's (2003) call nearly a decade ago for more research into management's perceptions of the company's business model and how information about strategy and value creation is communicated. The present paper argues, based on a review of relevant management literature, that the IC literature naturally intersects with the more general business reporting debate regarding the reporting of business models. This conceptual study reveals the points of conjunction and the potential for fruitful linkages in relation to both IC management and IC reporting.

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of the term 'business model', concluding that 'the peculiarities of strategy and competitive strengths mobilised by the analysts in their understanding of the case company can be seen as elements of a business model'.

[19] Interestingly, the ICAEW (2010, Appendix 1, p.56) report does note the recent managerial turn in the theory of the firm (specifically, resource-based theory). While this line of research is excluded from the report, it is noted that it may be important to understanding why firms succeed.

While we agree with Bukh (2003) that the linkage of IC disclosure to value creation processes and the business model is crucial, it is shown from a careful study of the managerial literature that the business model is the higher-level concept. Thus, the business model should drive IC disclosure and not the other way around, i.e. a top-down framework is required. It is further noted that, since business models are often quite transparent (Teece, 2010), external disclosure disincentives arising from proprietary costs may be less severe than might be expected. However, business models in high-velocity markets can be unclear, even to internal management (Eisenhardt & Martin, 2000; Lippman & Rumelt, 1992), making disclosure problematic even in the absence of competitive disadvantage concerns.

It is observed that the traditional 'micro-level' transactions-based accounting model has evolved into the current 'meso-level' business reporting model (AICPA, 1994), characterised by eight loosely connected elements. The phrase 'through the eyes of management' became a mantra in the 1990s, reflecting the desire to report externally in a manner which aligned with senior managers' (presumably) holistic view of the business. Initial developments in the IC reporting field were also characterised by a focus on IC resources which sought to break business activity down into recordable units in the traditional accounting manner. The focus of IC reporting frameworks was on managing IC not managing the business as a whole. This explains why these reporting frameworks have not been widely adopted in practice. The move to reporting on the business model is viewed as representing a 'macro-level' reporting model. Key attributes of such a reporting model are shown to be: (i) an explication of the distinctive static pattern of resources and capabilities that create a value proposition to the customer (this pattern clarifies the connectivity between the various elements, many of which are IC in nature); and (ii) the dynamic capabilities of the firm, including sensing and surveillance of the business environment and management's transformational abilities. The call for integrated reporting (IIRC, 2012) could offer a hierarchical reporting model that encompasses all three levels, with the business model revealing the connectivity between lower-level elements. The business model as 'architecture' analogy can be developed a little further if one views the business model as analogous to the load-bearing walls in a physical structure. No load-bearing wall can be omitted without jeopardising the integrity of the whole

structure; non-load bearing walls may be removed without any such compromise. The external reporting challenge is to find ways of reporting holistically whilst leaving out detail that cannot be included for contractual, regulatory or proprietary cost reasons. This challenge is not, of course, new. Company managers instinctively seek to communicate a holistic 'story' to core institutional investors to serve as a stable anchor in the market valuation of the company (Holland, 1998). This suggests that success is possible.

The business model concept is holistic and systemic. It is a unit of analysis that spans the boundaries of a single firm, while being firm-centric with boundary-spanning value creation activities playing a key role for many firms. The concept effectively subsumes the resource-based, dynamic capability and strategic network views of competitive advantage within the strategic management literature, which in turn subsumes the IC literature. The concept thus serves as an overarching, unifying framework. The business model concept and related perspectives on competitive advantage offer a powerful integrating concept within which to refocus the IC debate and the current calls for more integrated disclosure around the central business model story are supported.

Teece et al. (1997, p.526) discuss whether the economic or managerial perspectives on competitive advantage are complementary or competitive, concluding that they are competitive in some respects. While they acknowledge that complex problems merit investigation from all perspectives, the specific nature of the problem at hand will influence which perspective is more appropriate. Using this logic, we argue that the economic perspective seems more relevant for the accounting statements, while the managerial perspective is likely to be more insightful in relation to the material outside the financial statements. To paraphrase Boulding (1962), who viewed economics and accounting as uncongenial twins, economics, management and accounting are now the (un)congenial triplets!

In terms of future research, much remains to be done. This paper makes a start by introducing into the accounting literature the relevant managerial perspectives relating to the IC accounting field and the business reporting field. This provides a conceptual framework to be used by empirical researchers. We suggest that empirical research

into accounting narratives (including IC narratives) that is theoretically-informed by the management literature on strategy and business models is a fruitful line of inquiry. Preliminary research into business model reporting undertaken by accountancy firms (Grant Thornton, 2011; PwC, 2013) indicates the frequency and level of detail of such reporting by large listed UK companies. Further research should investigate the extent and nature of reporting of constituent concepts. Further, the antecedents and consequences of business model reporting appears currently to be a research lacuna.

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